February 2010

SOUTH EAST DORSET GREEN INFRASTRUCTURE: EVIDENCE AND OPPORTUNITIES STUDY

Prepared by
Land Use Consultants
for the
South East Dorset Green
Infrastructure Steering Group

SOUTH EAST DORSET GREEN INFRASTRUCTURE:

EVIDENCE AND OPPORTUNITIES STUDY

Final report

Prepared for
South East Dorset
Green Infrastructure
Steering Group

By

Land Use Consultants

February 2010

43 Chalton Street
London NW1 1JD
Tel: 020 7383 5784
Fax: 020 7383 4798
London@landuse.co.uk

CONTENTS

ACKNOWLEDGEMENTS

This strategy has been prepared for the South East Dorset Green Infrastructure Partnership by Land Use Consultants (LUC). The LUC team comprised Philip Smith, Emma Deen, Fiona Akins, Diana Manson, Richard Gowing, and John Jeffcock.

The steering group for the study comprised Malcolm Lewis (Chair), Tony Harris and Gemma Yardley (Dorset County Council), Mark Axford (Bournemouth Borough Council), William Wallace/Sally Knott (East Dorset District Council) Helen Harris (Borough of Poole), Simon Truieck/Kate Evans (Christchurch Borough Council), Steve Dring (Purbeck District Council), Brian Richards (The Environment Agency), Nick Squirrell (Natural England) and Bruce Rothnie (Forestry Commission). Invaluable support was also provided by Anne Jaluzot and Ian Phillips, representing CABE Space. LUC is grateful for the guidance provided by the steering group, and for the support of the stakeholders who attended the workshop, or gave up their time for telephone consultation.

1. INTRODUCTION

1.1. This document details the findings of the South East Dorset Green Infrastructure Study. Land Use Consultants was commissioned to undertake the study by the South East Dorset Green Infrastructure Steering Group, a partnership of South East Dorset local authorities and environmental bodies, as listed above. This study provides a framework for future green infrastructure planning in South East Dorset and the evidence base to inform a green infrastructure strategy.

1.2. The South West Regional Spatial Strategy (RSS) Proposed Changes[1] (referred to throughout this report as the RSS Proposed Changes) allocates a considerable amount of new housing to the SE Dorset conurbation (illustrated in **Figure 1.1**). At least 48,100 new dwellings are expected to be delivered in and around the Poole and Bournemouth Housing Market Area (HMA) by 2026 (see **Table 1.1**)[2]. In particular, Poole has been identified as a new Growth Point, making the town a key focus for economic regeneration and growth.

1.3. The implementation of the green infrastructure proposals outlined in this study will enhance the existing environment for local people, businesses and visitors and contribute to a robust natural environment which has the capacity to support sustainable built development.

1.4. The study findings and proposals have been subject to consultation with a range of stakeholders, in order to complement existing environmental initiatives and fit with the unique environmental features of the study area. The spatial context for the study area is set out in **Figure 1.1.**

BACKGROUND

1.5. The provision of green infrastructure in and around urban areas is now widely recognised as being essential in creating places where people want to live and work. Government policy recognises the need to plan for and provide green infrastructure. For example, at a national level, the recent supplement to the Government's Planning Policy Statement (PPS1) notes that:

In deciding which areas and sites are suitable, and for what type and intensity of development, planning authorities should take into account the contribution to be made from existing and new opportunities for open space and green infrastructure to urban cooling, sustainable drainage systems, and conserving and enhancing biodiversity[3].

1.6. A summary of relevant policy is provided later in this section.

[1] Draft Revised RSS for the South West Incorporating the Secretary of State's Proposed Changes. Government Office for the South West (July 2008).
[2] Draft Revised Regional Spatial Strategy for the South West Incorporating the Secretary of State's Proposed Changes. Government Office for the South West (July 2008).
[3] Planning and Climate Change - Supplement to Planning Policy Statement 1. Department of Communities and Local Government (2007).

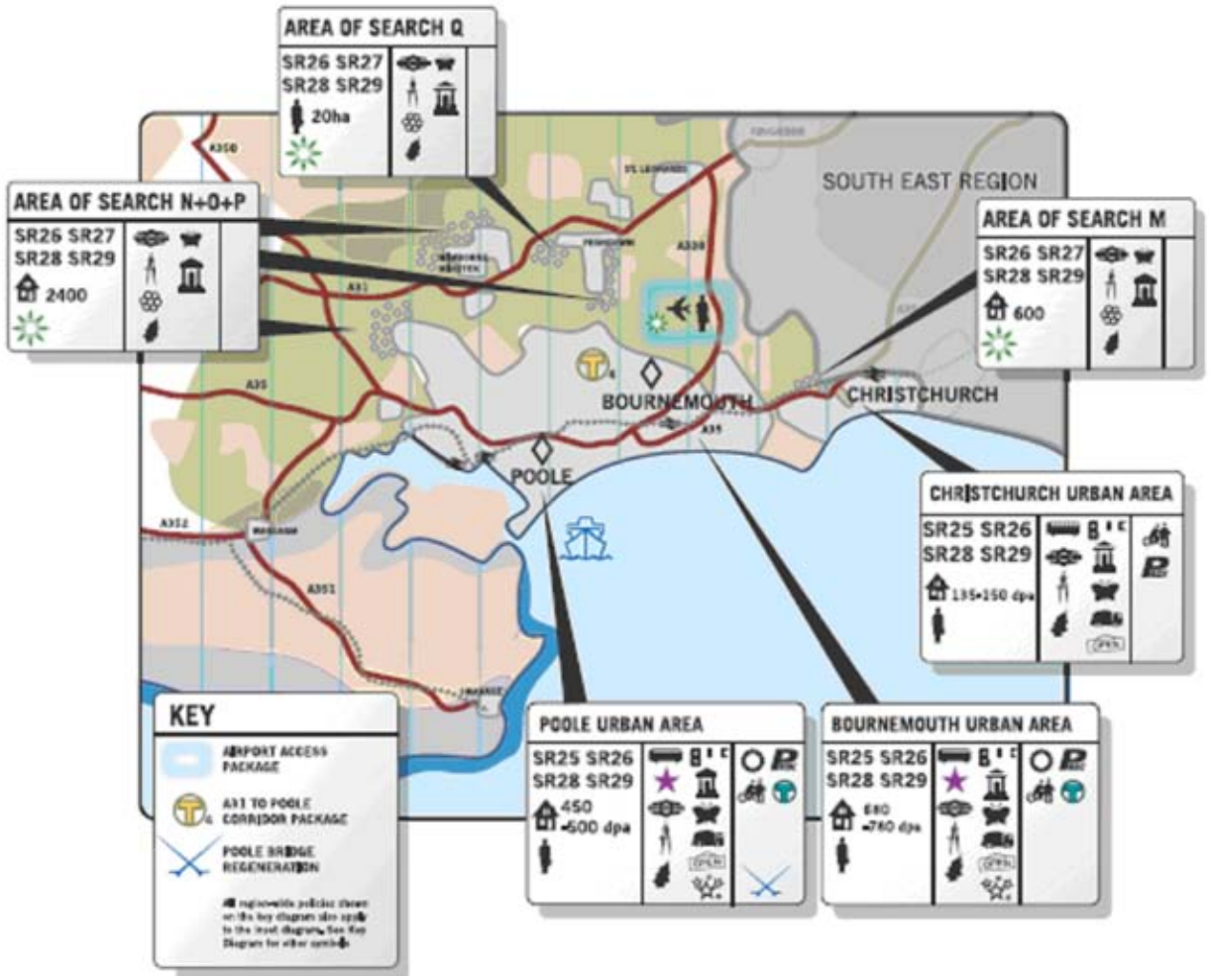


Figure 1: South East Dorset Housing Distribution
(Image taken from the draft revised South West RSS proposed changes)

DEFINITION OF GREEN INFRASTRUCTURE

1.7. For the purposes of this framework, the South West Regional Spatial Strategy definition of green infrastructure is employed:

"strategic networks of accessible, multifunctional sites (including parks, woodland, informal open spaces, nature reserves and historic sites) as well as linkages (such as river corridors and floodplains, wildlife corridors and greenways)"[4] .

1.8. Natural England also recognises the importance of the strategic role of GI, and further states that the design and management of GI should *respect and enhance the character and distinctiveness of an area with regard to habitats and landscape types*, and should *thread through and surround the built environment and connect the urban area to its wider rural hinterland*[5].

[4] para.6.2.16, Draft Revised Regional Spatial Strategy for the South West Incorporating the Secretary of State's Proposed Changes. Government Office for the South West (July 2008).
[5] pg.7, Green Infrastructure Guidance. Natural England (March 2009).

PURPOSE OF THE STUDY

1.9. The original brief outlined the following overarching aim of the study:

To prepare the basis for a strategy which will guide the development of a network of greenspace at the sub-regional level (South East Dorset) to support the existing and growing population. This strategy will establish high quality accessible green infrastructure within a comprehensive landscape structure. The strategy will promote ecological networks and continuity between habitats. It will also improve quality of life and address climate change. The Stour Valley is seen as one focus for the strategy but there may be other foci.

GI VISION AND OBJECTIVES

1.10. Facilitated by CABE Space, the Steering Group undertook a visioning workshop to inform the GI framework, and developed the following vision for green infrastructure in South East Dorset[6]:

A vision for green infrastructure in South East Dorset

A planned, multifunctional network of high quality green infrastructure in South East Dorset will deliver a range of services that will provide long-term and sustainable benefits to the sub region's communities, its economy and its environment.

It will respond positively to the needs and demands arising from urban growth; respect and enrich the quality of urban and rural landscapes and the conservation and management of natural species, systems and processes; assist in meeting the challenges of climate change, energy and resource efficiency, water conservation, flood risk and waste treatment; and, overall, enhance the quality of life in the area for all.

[6] SED GI Steering Group visioning workshop, facilitated by Anne Jaluzot and Ian Phillips from the Commission for Architecture and the Built Environment public space unit (CABE Space). Bournemouth Town Hall, 14th May 2009.

1.11. The objectives for green infrastructure within South East Dorset, defined in consultation with the Steering Group, are:

1. Health and well-being
To help improve quality of life for communities in South East Dorset, by providing 'green lungs' and access to nature as well as opportunities for active and passive recreation particularly in socially deprived areas.
2. Sustainable economic development
To support the local economy by maintaining and creating attractive places for inward investment and desirable business locations as well as encouraging rural regeneration. Increasing the provision of land which can be used by communities to grow local food, including a network of allotments and community gardens, is also important.
3. Tourism
To support and provide further sustainable opportunities for the areas key tourist industry such as opening up and increasing access and mobility to wider areas for people to explore and enjoy. The coastline and inland countryside are both key assets for the tourism sector.
4. Access and transport
To enhance overall access, mobility and connectivity within the green infrastructure network, in particular from existing and any new urban areas deficient in green space and areas of deprivation, to help promote social inclusion. This should include consideration and promotion of transport systems that offer alternatives to cars.
5. Water management and climate change adaptation
To ensure that the green infrastructure network achieves it's potential in providing flood and water management, local climate control, dispersing air pollution and filtering water to enhance quality, and therefore supporting opportunities for climate change adaptation.
6. Open space and recreation
To reduce open space deficiency in existing and new communities, ensuring all open space provision is high quality, attractive and safe, and that recreational pressure on the Dorset Heaths is alleviated through the provision of suitable alternative natural greenspaces (SANGs). Maximising opportunities along the less sensitive stretches of coast is a key objective as it is well used and accessible to large numbers of people.
7. Landscape character
To maintain and enhance landscape quality and condition, ensuring that the green infrastructure network appropriately reflects landscape character, context and sense of place.
8. Ecology and biodiversity
To conserve and enhance existing biodiversity assets, whilst increasing the potential of the green infrastructure network to provide space for wildlife, particularly new areas of heathland habitat which can be colonised by Dorset heathland species.
9. Cultural heritage
To protect South East Dorset's cultural heritage, and provide appropriate interpretation of key features for the benefit of local communities and visitors to the area.

Small informal green spaces can provide access to nature on the doorstep

POLICY CONTEXT

1.12. The policy context in which the framework has been prepared is summarised below.

National Policy

1.13. **Planning and Climate Change (supplement to PPS1)**[7] recognises the role of green infrastructure in mitigating and adapting to climate change. In deciding what areas and sites are suitable for development, PPS1 requires local authorities to recognise the contribution of green infrastructure to urban cooling, sustainable drainage systems, and conserving and enhancing biodiversity (para.24). It also states that local authorities should expect new development to *provide public and private open space as appropriate…, recognising the opportunities for flood storage, wildlife and people provided by multifunctional greenspaces* (para.42).

1.14. **PPS 12: Local Spatial Planning**[8] states that a local planning authority's core strategy *should be supported by evidence of what physical, social and green infrastructure is needed to enable the amount of development proposed for the area* (para.4.8). It states that outcomes of infrastructure planning should inform the core strategy and should be part of a robust evidence base (para.4.10). Infrastructure planning should identify, as far as possible:

- Infrastructure needs and costs
- Phasing of development
- Funding sources
- Responsibilities for delivery.

1.15. **PPG 17: Planning for Open Space, Sport and Recreation** recognises that *well planned and maintained open spaces and good quality sports and recreational facilities can play a major part in improving people's sense of well being in the place they live.* It requires local authorities to undertake audits of the existing provision of open space, sport, and recreational facilities in their area, and to identify the existing and future needs for improved or new facilities.

1.16. PPG17 also establishes Government's belief that open space standards should be set locally, and should include:

- A quantitative measure of how much new provision may be needed
- A qualitative component, against which to measure the need for enhancement of existing facilities
- Accessibility, including distance and cost

1.17. ***'Homes for the future'***, the 2007 Government Green Paper on housing describes green infrastructure as an essential part of Growth Points, a key mechanism for delivering environmental improvements and confirms that it is central to plans for achieving sustainable new communities. The paper defines the value of green infrastructure in improving the urban rural fringe, protecting and restoring the countryside, providing better access to nature, and integration of green spaces into the urban environment.

---

[7] Planning and Climate Change - Supplement to Planning Policy Statement 1. Department of Communities and Local Government (CLG), (2007).

[8] Planning Policy Statement 12: Local Spatial Planning. CLG (June 2008).

1.18. The Department for Communities and Local Government recently announced (May 2009) the intention to produce a new **Planning Policy Statement on Green Infrastructure**, to revise and consolidate portions of existing PPS 9 (Biodiversity and geo-conservation) and PPG 17 (Open space, sport and recreation)[9]. When published, this will provide overarching national guidance on the delivery of green infrastructure.

Regional Policy

1.19. The **South West RSS Proposed Changes**[10] proposes at least 48,100 new homes over the plan period within the Bournemouth and Poole Housing Market Area (HMA). Specific housing allocations within the sub-region are summarised in **Table 1.1** below.

Table 1.1: Housing allocations in the RSS Proposed Changes[11]**.**

	Annual average net dwellings 2006-2026	Overall net dwellings 2006-2026
Bournemouth and Poole HMA	2,405	48,100
Bournemouth	805	16,100
Poole	500	10,000
Christchurch	173	3,450
East Dorset	320	6,400
Purbeck	258	5,150
North Dorset	350	7,000

1.20. Sub-regional RSS policy *HMA7: Bournemouth and Poole HMA* seeks to transform Bournemouth and Poole town centres through expansion of employment and high density residential growth. It also sets out the need for the provision of suitable alternative natural greenspace to relieve recreational pressure of the Dorset Heaths Special Protection Area.

[9] p.43, World class places: Government's strategy for improving quality of place. CLG (May 2009).

[10] Draft Revised Regional Spatial Strategy for the South West Incorporating the Secretary of State's Proposed Changed. Government Office for the South West (July 2008).

[11] p.103, Draft Revised Regional Spatial Strategy for the South West Incorporating the Secretary of State's Proposed Changes. Government Office for the South West (July 2008).

1.21. RSS policy GI1: Green Infrastructure states that GI is required as an integral part of development, and should include the provision of new areas of open space, not just more intensive use of existing spaces. Policy GI1 is set out in the box below:

RSS Proposed Changes policy GI1 - Green Infrastructure

Development of networks of Green Infrastructure (GI) will be required to enhance quality of life in the region and support the successful accommodation of change. GI networks will comprise multifunctional, accessible, connected assets, planned around existing environmental characteristics.

Plans, strategies, proposals and schemes should aim to deliver wider spatial outcomes that incorporate environmental and socio-economic benefits by;

- Conserving and managing existing GI;
- Creating new GI; and
- Enhancing its functionality, quality and connectivity.

GI is required as an integral part of development and should include the identification, development and management of new areas of open space, not just more intensive use of existing areas of open space. Local Authorities and partners will:

- Draw upon existing expertise and initiatives to take forward GI planning and identify priorities and partnerships for GI.
- Incorporate GI policies setting out broad locations for GI appropriate to the extent and distribution of development proposed, coordinated across administrative boundaries as appropriate
- Integrate proposals to improve GI in the delivery of new developments, particularly through area based regeneration initiatives and major development proposals
- Ensure that a key aim of green infrastructure is the maintenance and improvement of biodiversity
- Protect the integrity of sites of international importance and provide new areas of appropriate greenspace where development would otherwise cause unacceptable recreational pressure on sites of international ecological importance
- Maximise the role of GI in mitigating and adapting to climate change
- Develop a GI Plan with a delivery programme to support GI policies.

Supporting text to policy GI1 recognises the particular risk of 11 designated sites to recreational pressure, including, within the study area, Poole Harbour and the Avon Valley (both Ramsar and SPA sites). The Dorset Heathlands SPA, the Dorset Heaths SAC and the Dorset Heathlands Ramsar (henceforth called the Dorset Heathlands) are also considered to be at risk.[12] Just outside the study area, the Isle of Portland to Studland Cliffs SAC and the New Forest SAC are also recognised as being particularly at risk.

1.23. Elsewhere in the RSS Proposed Changes, *Development Policy F: Planning and delivery of major development* requires major developments to provide for, amongst other things, amenity space and green infrastructure that meets community need and supports improved biodiversity.

[12] The Dorset Heathlands are not included in the list of designated sites at risk of recreational pressures in the supporting text to RSS Proposed Changes policy GI1. However, this pressure is widely recognised, and acknowledged elsewhere in the RSS Proposed Changes (policy ENV1).

Green infrastructure is also recognised as an important component of ensuring the high residential densities proposed throughout the RSS result in good quality living environments.

1.24. The **Habitats Regulations Assessment**[13] of the RSS Proposed Changes concludes that the RSS should not have adverse effects on the integrity of many of the Natura 2000 and Ramsar sites in the South West, provided that RSS policies are successfully implemented. Considerable reliance is placed on proposed mitigation measures, which it states will need further testing at the local level and will need to be carefully monitored to ensure that actual outcomes are as anticipated.

Local Context

1.25. Adopted and emerging local plan policies within South East Dorset resist the loss of playing fields and green space; set out open space provision standards for new development; and promote expanded public access to certain sites of particular interest or value. **Appendix 1** summarises the relevant policies from both adopted and emerging local plans in the sub-area.

OTHER RELEVANT POLICY INITIATIVES

Dorset Rights of Way Improvement Plan & the All England Coast path

1.26. The 2007 Dorset's Rights of Way Improvement Plan (ROWIP)[14] aspires to: 'develop a countryside access network that will serve us today and in the future'. Dorset has almost 3000 miles of public rights of way, bridleways and byways, and the Dorset ROWIP aims to enhance this network by ensuring it is a connected, safe and attractive resource for users. The ROWIP is supported by an action plan which identifies priority actions in relation to a range of objectives.

The All England Coast path: Natural England's coastal access audit has confirmed that a third of England's coastline does not currently have a safe and secure path around it – with these sections regularly alternating with the sections where such a path does exist. The new Marine & Coastal Access Act, which received Royal Assent in November 2009, will create significant opportunities to develop new coastal routes, secure routes that are currently available only on a permissive basis, and replace the 13% of existing coastal paths that are expected to be lost to coastal erosion in the next 20 years.

Catchment Flood Management Plan Action Plans

1.27. Catchment Flood Management Plans (CFMPs) are developed by the Environment Agency to provide guidance and policies on reducing flood risk in each river basin. The Agency also prepare action plans to prioritise necessary actions identified in the CFMP. Both the Stour and the Frome and Piddle Action Plans identify some actions which the delivery of green infrastructure could complement. These include:

- Identify of appropriate areas for flood attenuation, wetland creation and restoration of grazing marsh;
- Encourage agri-environment and Woodland Grant schemes to fund land use change to increase water retention along the catchment;
- Identify areas where significant flood plain restoration opportunities can be delivered through removal of hard infrastructure such as roads;

[13] Habitats Regulations Assessment of the South West RSS Proposed Changes. Land Use Consultants (2008).
[14] Dorset County Council (2007) Dorset Rights of Way Improvement Plan: Background document and actions.

- Restore water meadows at Sydling Water and the Winterbournes, ensuring effects on the SSSI are minimised.

Catchment Abstraction Management Plans

The Avon, Frome, Piddle and Purbeck

1.28. The Avon, Frome, Piddle and Purbeck catchment incorporates the rivers Avon, Frome, Piddle, Corfe and Sherford. The catchment for the last four of these rivers lie entirely within Dorset and the majority of land is used for agriculture. The most recent CAMS (2005) assess the available water resource in the catchment as follows:

- There is water available at the rivers Frome and Sherford
- There is no water available along the River Piddle

The 2007 update of the Hampshire Avon CAM (2006) indicates that the lower Avon is over abstracted.

The Stour

1.29. The River Stour runs from Stourhead Gardens through Dorset to Christchurch where it meets the sea. The catchment is predominantly in Dorset. The most recent CAMS (2004) concluded that all sections of the catchment are either over-licensed (i.e. the current licence availability, if fully utilised would lead to environmental degradation along the length of the river due to lack of water availability) or there is no water available. Some sections of the river suffer from poor water quality, due to agricultural run-off.

Bournemouth Tree Strategy and Wildlife Survey

1.30. Bournemouth Council is currently preparing a Tree Strategy for the borough. The purpose of the strategy is to promote the importance of trees in the town, and the benefits they bring to the wider community. Bournemouth is already a fairly wooded town, and the strategy will guide the council in maintaining this asset and investing in enhancement and management where appropriate.

1.31 A wildlife survey is also underway in Bournemouth, but the findings of the study were not available to inform this study.

Bournemouth Green Space Strategy 2007-2011

1.32. The Bournemouth Green Spaces Strategy outlines options for the future management of the town's open spaces. It highlights objectives and sets out a series of aims that will ultimately be in consistency with emerging LDF policy. A number of actions are proposed in order to manage a range of open spaces, including allotments, parks and public gardens, play areas formal pitches, with needs of the community and biodiversity in mind as well as the possible impact of climate change.

Poole Tree Strategy and Tree Management Policy

1.33 The Borough of Poole is currently preparing a Tree Management Policy and Ten Year Tree Strategy. There are 68 urban woodlands in Poole, wooded chines on the coast, specimen trees in parks and verges as well as tree stock on other Council landholdings. The policy and strategy will prioritise arboricultural work to ensure effective tree management.

Bournemouth & Poole Nature Conservation Strategies

1.34. The Bournemouth Nature Conservation Strategy was adopted in 2007. It provides an advisory framework for the Council to work to in partnership with all sections of the community. A number of aims and objectives are set out to benefit biodiversity across the Borough. The Poole Nature Conservation Strategy was adopted by partners in 2006 and is a similar framework document to the Bournemouth strategy with similar aims and objectives.

Bournemouth Town Centre Area Action Plan

1.35. Consultation is currently underway on the Issues and Options for Bournemouth Town Centre Area Action Plan (AAP). In relation to the environment and transport, the AAP Issues and Options identifies the following issues:

- How to make the town centre an easy place to understand and find your way around;
- How to protect and improve public space, including streets and squares, green spaces, the beach, historic buildings and the town's appearance;
- How to improve the richness of wildlife and plants in the area;
- How to prevent flooding and deal with surface water;
- How to limit climate change and address its potential impact on the town centre;
- How to improve pedestrian and cycle routes - connections, navigation and experience;
- To what extent should we promote alternatives to car use.

There are other local authority emerging and existing LDF documents which also reflect how Green Infrastructure can be built into the planning system.

Dorset Area of Outstanding Natural Beauty (AONB) Management Plan

1.36. The consultation draft of the *Framework for the Future (2009 – 2014) Dorset AONB Management Plan* makes the following recommendations in relation to the South Purbeck Heaths, which form part of the study area.

- Heathland restoration and grazing management
- Management of sites likely to be affected by sea level rise /coastal change, e.g. Studland
- Creation of habitats that may be lost due to climate change – saltmarshes around Poole Harbour
- Woodfuel development opportunities from heathland restoration
- Management of access and recreation to reduce pressure on fragile heathland sites

Cranborne Chase and West Wiltshire Downs AONB Management Plan

1.37. The Cranborne Chase and West Wiltshire Downs AONB Management Plan covers 2004 – 2009, and has not yet been updated. Some relevant actions listed in the plan, which could be delivered through GI projects, include:

- Pro-actively target land managers/ owners to apply for agricultural diversification and forestry scheme funding

- Highlight historic, archaeological and cultural features within Information and Interpretation Strategy
- Develop and promote demonstration project linking public transport to recreation sites, attractions and main walking and cycling routes for locals and visitors alike
- Work with other organisations to highlight opportunities for 'Healthy Living' initiatives within the AONB

EXISTING GI INITIATIVES

1.38. There are a number of existing initiatives underway in South East Dorset, which are relevant to green infrastructure and should be considered and complemented in future GI planning. The most relevant initiatives are summarised below.

East Dorset 'Forest Design Plans'

1.39. Forest Design Plans are management plans for Forestry Commission woodlands that aim to deliver multiple public benefits across social, economic and environmental themes. The plans must meet sustainable management guidelines and reflect the contribution the woodland provides as part of the wider rural landscape. The plans do incorporate some further restoration of heathland from conifer plantations.

1.40. The FC has policies to encourage public access to its woodlands, and this resource provides about 5,400 hectares of accessible natural greenspace within the study area. FC woodlands are particularly significant in provision of larger scale greenspaces exceeding 100 hectares in size.

Dorset Heaths Mitigation DPD and Interim Planning Framework (IPF)

1.41. The Interim Planning Framework has been prepared jointly by the South East Dorset local authorities, in partnership with Natural England. The Framework has been developed following Natural England's guidance that additional residential development within 5km of the Dorset Heaths is likely to cause adverse effects on the sites as a result of increased recreational pressure. As a result, local authorities must secure mitigation in the form of investment in existing or creation of new green space to alleviate impacts of development on the Heaths. The IPF provides details of how the developer contributions are calculated and what the contributions may be invested in.

Dorset Urban Heaths Grazing Partnership

1.42. The Dorset Urban Heaths Grazing Partnership was formed in 2005 by local authorities (Poole, Bournemouth, East Dorset, Christchurch, Dorset County Council), nature conservation NGOs and Natural England. The aim of the Partnership is to address the lack of appropriate grazing management which has led to tree and scrub encroachment of the Heaths, and to ensure their appropriate management.

NE's 'Wild Purbeck' Vision

1.43. The Wild Purbeck Vision is a Natural England initiative to encourage the restoration of heathland habitats in this area of Dorset. The scheme maps areas which are currently heathland habitats, other valued semi-natural habitats, and areas which are being restored as lowland heath.

1.44. A consortium of local authorities in South East Dorset is currently producing a bid to Natural England's Access to Nature scheme. The bid will be broad based and community-led, focussed on a three-year programme of projects along the Castleman Trail and the Stour Valley Way.

Canford Heath – Heaths are popular destinations for a range of informal recreation

METHOD

Approach to the study

1.45. A three-stage methodology was adopted for the purpose of the study, as outlined in **Figure 1.2.** The data to inform the study was gathered by the Dorset Environmental Records Centre, allowing LUC to focus on analysis and interpretation of existing information, and effective consultation with stakeholders to inform GI options development. This reflects the importance of green infrastructure being founded on the existing environmental character and features of the study area, and helps to ensure that the GI opportunities identified are truly location-specific. A more detailed summary of each stage of the study is provided in **Appendix 2.**

1.46. This study applies the 'Greenprint' approach to GI planning, as developed by LUC through recent GI strategies. This approach recognises the importance of existing environmental and landscape assets in setting the framework for, and in providing the functions to support development. The Greenprint approach aims to identify essential elements of a location's green infrastructure, which can be prioritised and implemented in advance of built development or alternatively planned at the same stage as, and to complement, growth.

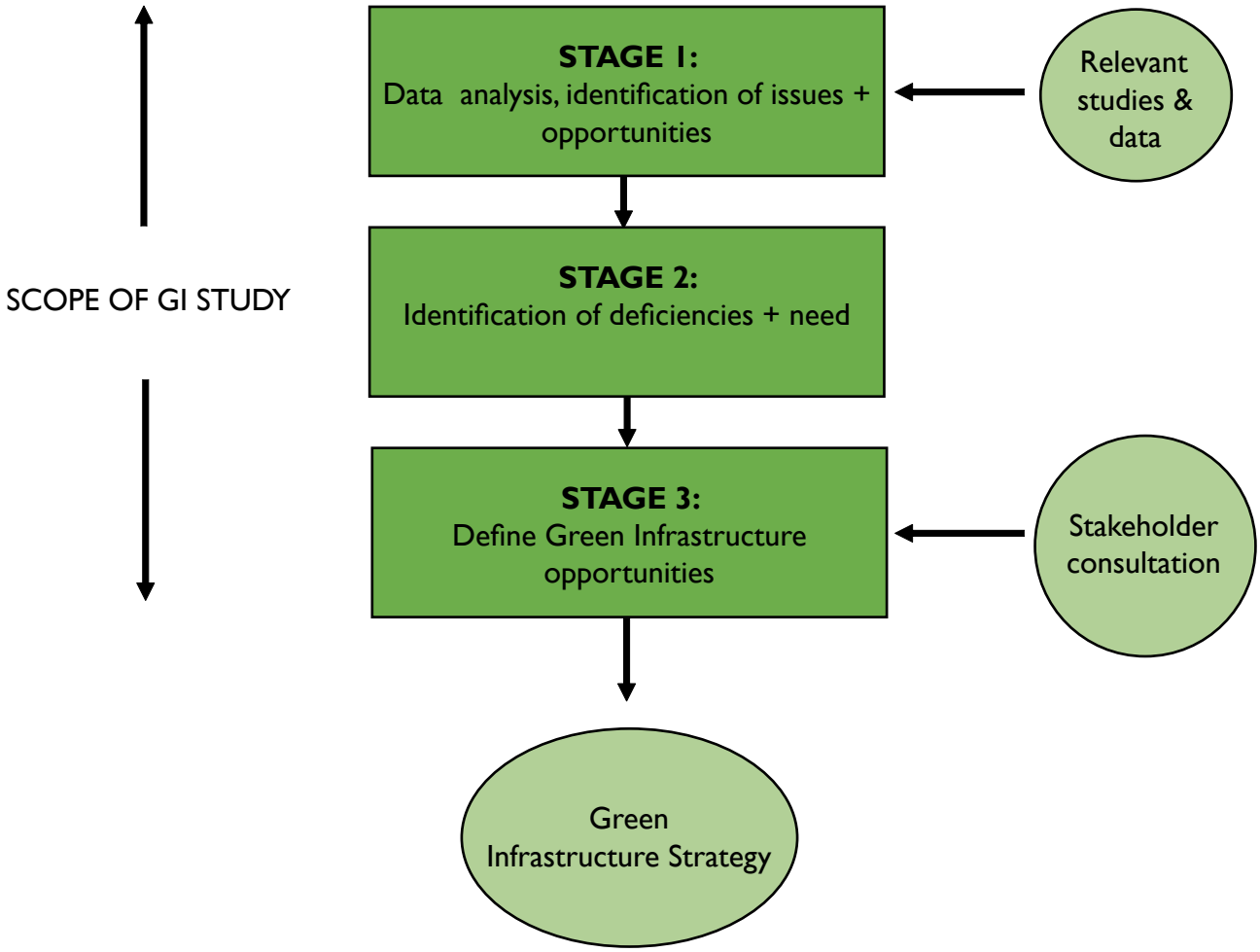


Figure 1.2: Method overview

REPORT STRUCTURE

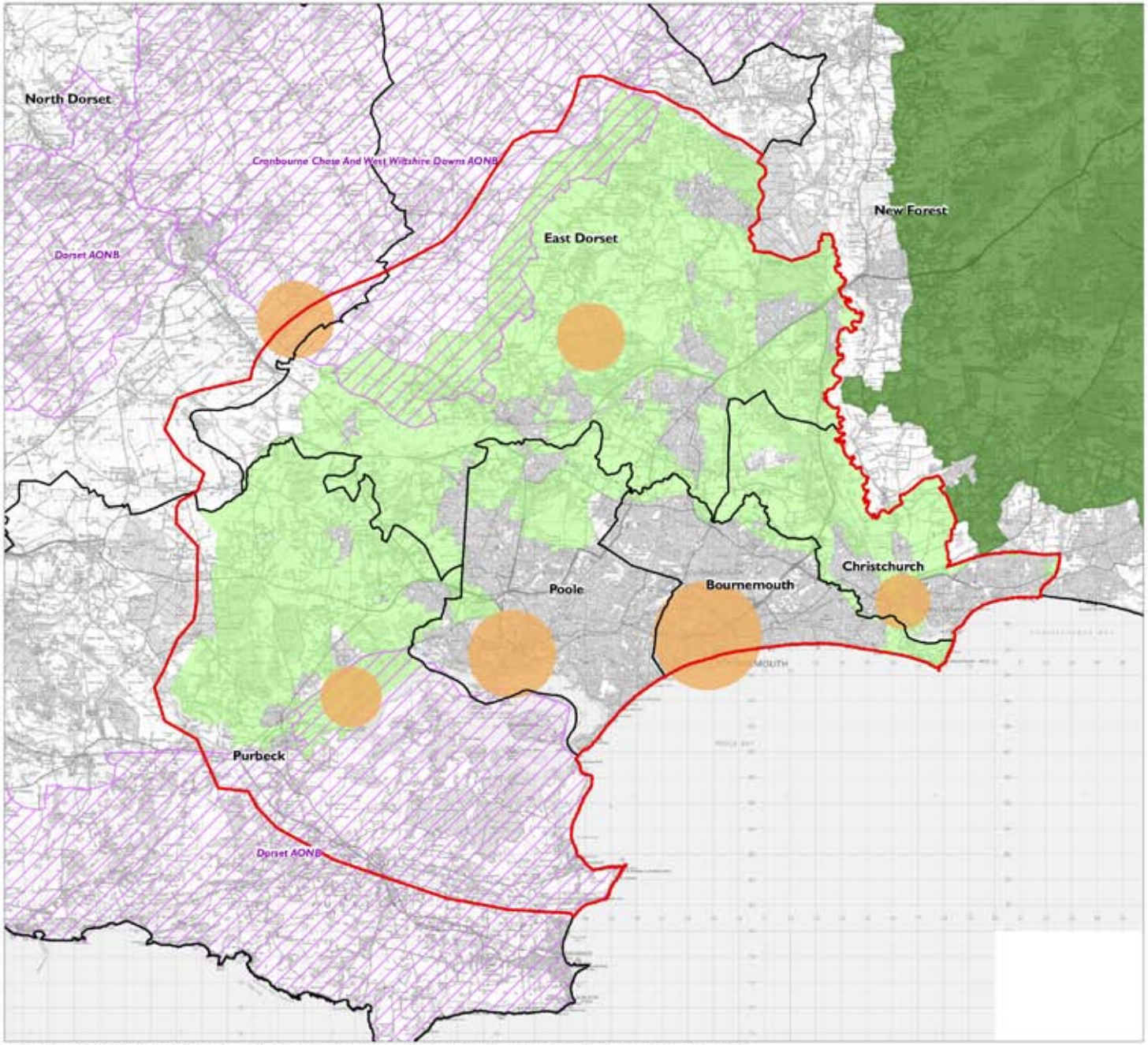
The remainder of this document is structured as follows:

Part 1: Green Infrastructure issues and opportunities

- Existing GI assets, issues and opportunities

Part 2: Green Infrastructure analysis and GI Framework

- Open space provision
- Stakeholder consultation
- Green Infrastructure framework
- Recommendations



South East Dorset Green Infrastructure Framework

Figure 1.1: Context for the study

Key

- Study area
- Local authority boundaries

Proposed housing growth by 2026

- 3,450 in Christchurch
- 5,150 in Purbeck
- 6,400 in East Dorset
- 7,000 in North Dorset
- 10,000 in Poole
- 16,100 in Bournemouth

- Areas of Outstanding Natural Beauty
- Green Belt
- New Forest National Park

N W E S 0 1 2 4 Km

Source: Ordnance Survey, Natural England & Dorset County, RSS Proposed Changes (July 2008)

Date: 03/12/2009
Revision: D

File: S:\4460\4641 South East Dorset Green Infrastructure Study\GIS\Themes\ArcGIS\4641-01_001_Study_boundary_RevD.mxd

February 2010

PART 1: GREEN INFRASTRUCTURE ISSUES AND OPPORTUNITIES

2. HEALTH & WELL BEING

OVERVIEW

2.1. The NHS recognises the health benefits of environmental quality and access to recreational assets. A 2004 study estimated the economic savings to the NHS of providing access to urban parks and footpaths within South East Dorset[15] at £1,485,000[16].

2.2. Areas of socio-economic deprivation often contain the most neglected and under-used areas of public space[17] and therefore the most vulnerable communities currently gain the least benefit from the many opportunities that green infrastructure has to offer. Investment targeted in these areas would help to redress this imbalance.

Socio-economic context

2.3. The English Indices of Deprivation 2007 provide a relative ranking of areas across England according to their level of deprivation, addressing seven dimensions of deprivation:

- Income;
- Employment;
- Health and disability;
- Crime
- Living environment
- Education, skills and training
- Barriers to housing and services

2.4. The Index of Multiple Deprivation provides a composite view of deprivation across all of these seven indices. The character and spatial variation within South East Dorset of these indices have been described below in **Table 2.1** and illustrated in **Figure 2.1**.

Table 2.1: Indicators of deprivation

Indicator	Description
Index of Multiple Deprivation	The majority of the study area has low levels of multiple deprivation. The exceptions to this are four wards in Bournemouth (Boscombe West, East Cliff and Springbourne, Strouden Park, and Kinson South wards) where pockets of multiple deprivation exist that are amongst the 10% most deprived in England. A large swathe of the Bournemouth coastline falls within the 20% most deprived in England. Furthermore, there are a few pockets of multiple deprivation in Poole and Christchurch which are amongst the 20% most deprived in England.
Income	The highest levels of income deprivation are found in Bournemouth. Three wards in Bournemouth (Kinson South, Strouden Park and Boscombe West wards) are amongst the 10% most deprived in England. Alderney ward in Poole also experiences high levels of income deprivation.

[15] Encompassing all of Bournemouth, Poole, Christchurch, East Dorset, and Purbeck local authorities, being larger than the Study Area defined for this GI Framework.

[16] para.4.5.2, SED 13: Health provision and need. South East Dorset Strategy (Nov 2005).

[17] Sustainable Communities: Building for the future. ODPM (2003).

Employment	Pockets of employment deprivation can be found within Poole, Bournemouth and Christchurch. Again, the largest swath of high employment deprivation can be found along the Bournmouth coastline with the Central, East Cliff and Springbourne and Boscombe West wards amongst the 10% most deprived in England. A further two wards in Bournemouth have high levels of deprivation (Kinson South and Strouden Park wards). Grange ward in Christchurch and Poole Town ward in Poole also exhibit high levels of employment deprivation.
Health and Disability	Health and disability deprivation largely mirrors the pattern of employment deprivation with Strouden Park ward and the three adjacent wards along the coastline (Central, East Cliff and Springbourne and Boscombe West) amongst the 10% most deprived in England. Furthermore, Poole Town ward in Poole has high levels of this type of deprivation.
Education, Skills and Training	Employment, skills and training deprivation are most prevalent in Bournemouth and Poole. Most notably, there is a large swathe of deprivation (amongst the 20% worst deprived in England) stretching across the Bournemouth and Poole border encompassing parts of Newtown, Alderney, Kinson South and Kinson North wards.
Barriers to Housing and Services	This is the most widespread form of deprivation. In contrast to most of the other indicators, this type of deprivation is more prevalent outside of the urban areas – covering large areas of East Dorset, North Dorset and Purbeck.
Living Environment[18]	Living environment deprivation is mainly confined to the coastal wards in Bournemouth, and is also high (amongst worst 10% in England) in Handley Vale and Crane wards, East Dorset.
Crime	The study area enjoys low levels of crime. Small pockets of this type of deprivation can be found in Bournemouth, especially Westbourne and West Cliff and Central and Boscombe West wards in the south and Kinson South ward in the north west of Bournemouth.

2.5. Bournemouth has a higher rate of hospital admissions for mental health issues than the national average, with schizophrenia and prescribing rates for antipsychotics and antidepressants being above average[19]. GI is considered to have the potential to contribute to preventing and treating mental health in some cases; for example, there is an estimated 13% reduced risk of cognitive decline for every mile walked per week over a lifetime[20]. Therefore, GI can play a significant role in contributing to good mental health.

2.6. The *Healthy Weight Strategy for Dorset* aims to help people build exercise into their lifestyles, and recognises that the planning of the built environment and transport can have huge effects on the ability of people to exercise. The Strategy sets out that local authorities should work with partners to create and manage more spaces for planned and incidental physical activity, and that services should be located close enough to the areas of need to ensure that sustainable travel modes are the logical choice[21].

2.7. The Dorset Health and Well-being Partnership identified five key priorities for improving health in the county,[22] including, as relevant to GI, promoting healthy exercise and healthier workplaces.

[18] The living environment indices is comprised of measures of housing in poor condition, houses without central heating, outdoor air quality and road traffic accidents involving injury to pedestrians and cyclists.
[19] para. 2.3.8, ibid.
[20] A prospective study of physical activity and cognitive decline in elderly women. Yaffe, K et al. (2001), Archives of internal medicine; 161(14):1703-1708.
[21] Healthy Weight Strategy for Dorset (2009-2012).
[22] Health and Wellbeing Partnership, Dorset County Council website: www.dorsetforyou.com/index.jsp?articleid=345105

Local food growing

2.8. The provision of local produce and sites where communities can learn about food-growing is an important social function of green infrastructure. Mapped data showing the location of allotment and community garden sites in the study area was not available to inform this study. However, local leisure strategies have been reviewed where they are available, in order to gain an overview of the general provision and quality of allotments and other local food growing facilities. A summary of the current local food growing assets is provided for the main urban areas, and key issues and opportunities are provided below.

Bournemouth

2.9. Bournemouth Borough Council (BBC) currently provides 562 allotment plots at six sites. Four of these sites are managed by allotment associations (Longbarrow, Brook Road, North Bournemouth and East Bournemouth) and the remainder are managed by the Council (Springbourne and Merrivale). The majority of allotment plots are located in the north west area of the town, where there has been a continuing decline in demand for allotments. In contrast, demand has been increasing in the Springbourne and Stourfield areas where there is little provision[23]. The BBC Leisure Strategy sets out the following policy in relation to allotment provision: *Policy K: "The Council will endeavour to ensure that an appropriate level of allotment provision to a good standard is available within the town".*

2.10. In addition, there are at least two community gardens in Bournemouth, including the Townsend Community Garden, which has recently been awarded Bournemouth's first Green Pennant for green space quality, and the Keeble Community Garden in Kinson, which has recently received funding from Bournemouth Council[24].

Poole

2.11. The Borough of Poole currently provides 40 allotment plots over eight sites for use by residents, located at Alder Farm, Blake Dene, Broadstone, Bushell Mill, Hamworthy, Tatnam Farm, Whitecliff and Widdicombe. The majority of these sites are managed by the Council's grounds maintenance contractor, with the exception of the Alder Farm site is managed by the Alder Farm Allotments Association[25]. In addition, a new community garden is currently being created at Merley Community Centre, with the intention of being available for use by July 2009. Demand for plots has increased over the years with long waiting lists now existing. An Allotment Strategy is being prepared and will focus on how to manage current and future demand and continue to ensure fair allocation of allotments.

Christchurch & East Dorset

2.12. Christchurch Borough Council currently provides 416 plots on five sites around the borough, at Douglas Avenue, Roeshot Hill, Rutland Road, Southey Road Walkford Road[26]. There are currently long waiting lists for all allotment sites.

---

[23] Bournemouth Borough Council website, Leisure Strategy: http://www.bournemouth.gov.uk/Council/Departments/Leisure_Tourism/leisure_services/leisure_strategy/default.asp

[24] Bournemouth Borough Council website: http://www.bournemouth.gov.uk/News/press_office/Press_Releases/May_2008/keeble.asp

[25] Borough of Poole website, Leisure Services: allotments: http://www.boroughofpoole.com/leisure/services/ref:S464DAB1F04F87/aka:Allotments/

[26] Christchurch Allotments page on Dorset For You website: http://www.dorsetforyou.com/index.jsp?articleid=323625

2.13. The Christchurch and East Dorset PPG17 Open Space, Sport & Recreation Strategy recommends an allotment distance provision standard of 600m, and this is applied to allotments across the sub-region in **Figure 11.3.** Application of this recommended standard indicates that most areas of the sub-region are deficient in access to a local allotment. East Dorset DC does not have any allotments, those which exist are privately owned. There are small sites in Alderholt, Wimborne, Corfe Mullen, Longham, Sixpenny Handley and Cranborne, but the total number of plots is unknown. There is currently interest in setting up new sites for allotments in Colehill, West Moors, Kingston Lacy and Verwood.

One of South East Dorset's allotment sites - Food growing is becoming increasingly popular in the sub-region

CURRENT ISSUES

- In urban areas, improving the ease of access to recreational opportunities is a priority to encourage physical fitness.
- Some people may find it difficult or daunting to try a new activity, such as a countryside walk or cycling to work.
- There is a sense that urban transport is geared toward car users. Particular concerns were
- raised about safety and attractiveness of crossing roundabouts and arterial roads as a pedestrian.
- Health and disability deprivation levels are very low outside of the main urban areas. Higher levels of multiple deprivation are found in Bournemouth, especially in the coastal wards of Central, East Cliff and Springbourne and Boscombe West.
- There are high levels of living environment deprivation in the coastal wards of Bournemouth, and also in East Dorset.

- Potential for the loss of existing allotment sites to accommodate planned growth, e.g. urban extension areas of search at Roeshot Hill, Christchurch and west Wimborne, and potentially for redevelopment in Southbourne, Bournemouth.[27]

- Lack of available land to create new allotments in urban areas where demand is increasing. There is no vacant previously developed land in Bournemouth and Christchurch which has not already been allocated for use in the local plans[28].

- Long waiting list for allotments across East Dorset, Poole and Christchurch, and in Springbourne and Stourfield (Bournemouth), where there is currently insufficient provision.

- Need to encourage a wider section of the community to become involved in local food growing.

OPPORTUNITIES

- Alleviate 'living environment deprivation' by providing safe, attractive green areas in residential areas, and micro-green infrastructure such as trees and green roofs and walls in urban environments.

- There is potential to create wooded areas in parts of the study area which suffer from poor air quality, to minimise the risk of health effects. One option would be to focus on the designated Air Quality Management Area, at Winton in Bournemouth (Wimborne Road between the junctions of Calvin Road and Bryanstone Road).[29]

- Facilitate beginners to try new fitness or recreational activities. Measures could include providing guided countryside walks, highly legible wayfinding, angling lessons, and publishing cycle-route maps (such as those produced by East Dorset Council).

- Work closely with Sustrans[30] and the Highways departments of Dorset County and Poole and Bournemouth Borough Councils to extend, signpost, and publicise safe recreational and commuter cycle routes throughout the sub-region.

- Work with the Highways departments of Dorset County and Poole and Bournemouth Borough Councils and Sustrans' 'Safe Routes to Schools' initiative and local school boards to develop, signpost, and publicise Bike to School routes[31].

- Investigate whether the cost of purchasing a bicycle and safety equipment is preventing any portion of the population from cycling.

- Explore feasibility of piloting a low-cost pick up/drop off bike hire scheme within Poole/ Bournemouth/Christchurch, Such a scheme, known as a Mass Automated Bike Hire Scheme could cover the urban town centre with a supply of between 200-300 bikes which employ flexible bike hire docking stations that are attached to existing stand cycle parking.

- Work with partners to improve the pedestrian realm in the whole sub-region.

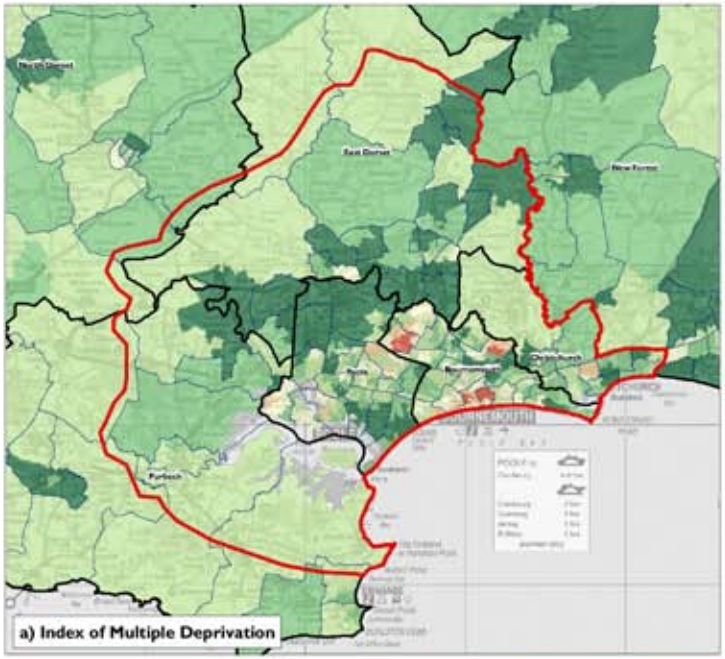
---

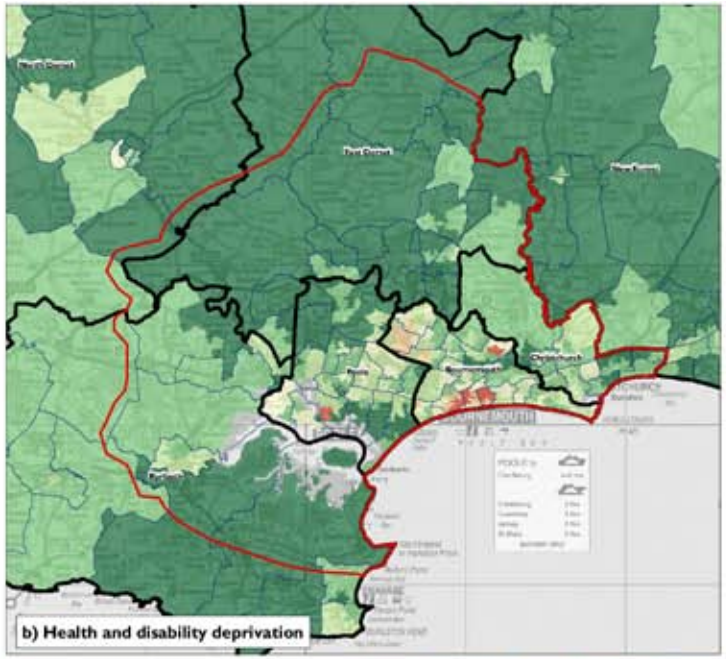
[27] Discussion with Bournemouth Borough Council, in capacity as member of SED GI Steering Group.
[28] National Land Use Database, February 2008
[29] UK Air Quality Archive website: http://www.airquality.co.uk/laqm/list.php
[30] Sustrans is the UK's leading sustainable transport charity, promoting modes of travel that benefit peoples' health and the environment: http://www.sustrans.org.uk/
[31] Sustrans 'Safe Routes to Schools' initiative: http://www.sustrans.org.uk/what-we-do/safe-routes-to-schools

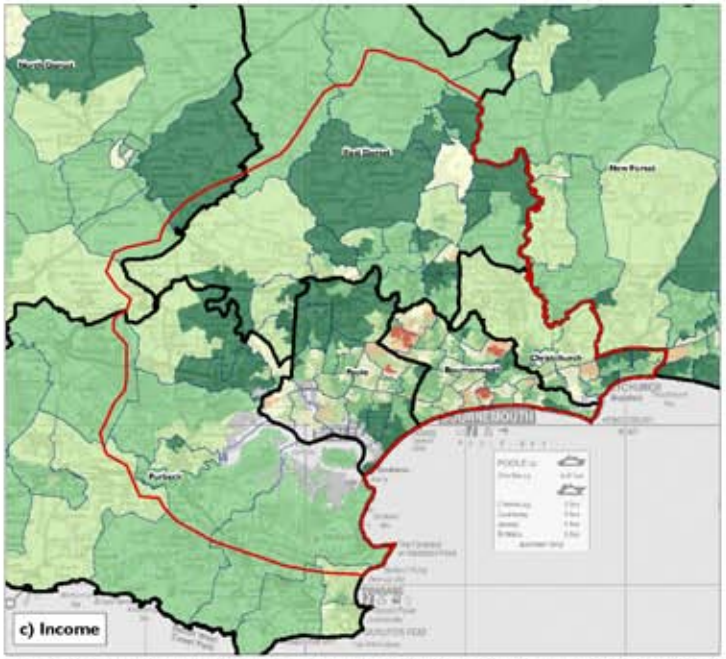
    - This should include improvements to existing public transport nodes, such as walking routes from rail stations.
    - Consult with local walking groups (such as Poole Healthy Walks, Verwood Health Walks and the Christchurch Strollers) to ensure improvements to the public realm, rights of way, and recreational trails take into account their suggestions.
- Prioritise access to nature and recreation opportunities in areas of health deprivation (Strouden Park, Central, East Cliff, Springbourne and Boscombe West wards in Bournemouth, and Poole Town ward).
    - These should be delivered alongside consultation and awareness-raising to ensure the appropriate type facilities are provided.
    - Collaboration with PCTs as a standard practice
    - Seek funding opportunities from/with PCTs/NHS
- Natural England is working with Dorset health professionals on a 'blue gym' pilot to encourage the use of Dorset's coast and inland waters for health benefits. South East Dorset partners should work with these stakeholders to design and deliver water-related enhancement measures.
- Sustain us of woodlands for informal access, linking sections of linear routes and as a setting for leisure activities and businesses that would encourage healthy living.
- Maintain and enhance use of Moors Valley Country Park provides for re-introducing people to access and recreation in the countryside including education events and taster sessions for a range of activities.
- Create additional allotment facilities on appropriate brownfield sites within urban areas, and greenfield sites on the urban edge.
- Further research into the extent to which communities value and use small poor quality green spaces in the urban area, with potential to consider conversion to allotments and community gardens.
- Potential to incorporate allotments and community gardens for local food production into new development.
- In Bournemouth there is a need to consider redistribution of the provision of allotments based on demand. There is potential to create a community garden to serve communities in Christchurch. There are a few previously developed sites in Poole's urban area which may have potential to be managed as allotments[32].
- Opportunity for local authorities to work more closely with Transition BH[33], a local community initiative the purpose of which is to increase local food growing and self sufficiency in provision of renewable energy, and decrease dependence of the Bournemouth, Poole and Christchurch communities on oil and fossil fuels.

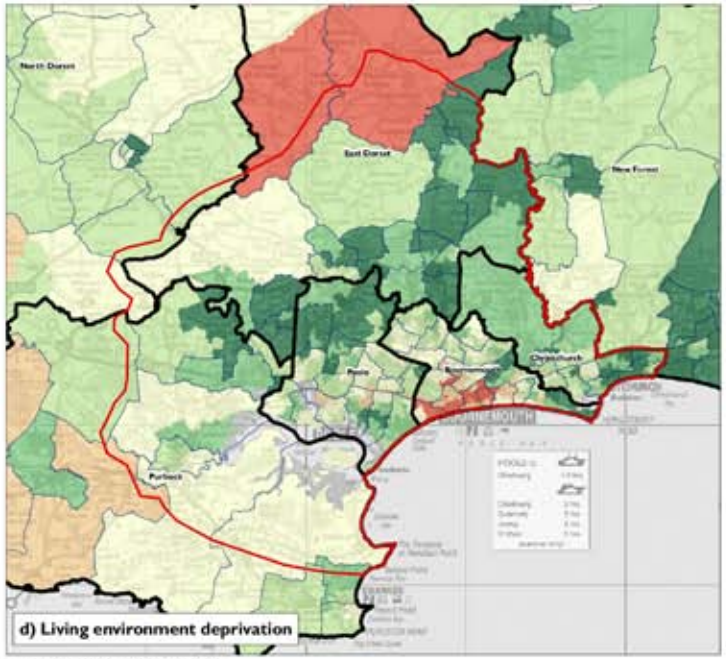
[32] National Land Use Database, February 2008

[33] TRansition BH: Transition Towns in the Poole, Bournemouth and Christchurch areas. Visit their website: http://transitionbh.org/









South East Dorset Green Infrastructure Framework

Figure 2.1: Health and well-being

Key

- Study area
- Local authority boundaries
- Ward boundaries

Percentile of England wide rank (%)

- 0 - 10 (most deprived)
- 10 - 20
- 20 - 40
- 40 - 60
- 60 - 80
- 80 - 100 (least deprived)

N W E S 0 1 2 4 6 8 Km

Source: Ordnance Survey, ONS 2001, CLG 2007

Date: 25/06/2009
Revision:

File: S:\46009\4641 South East Dorset Green Infrastructure Study\GIS\Themes\ArcGIS\9\4641-01_050_Socio-econ_sheet3.mxd

3. SUSTAINABLE ECONOMIC DEVELOPMENT

OVERVIEW

3.1. Green infrastructure provides a range of benefits within South East Dorset, and its conservation and enhancement will be a vital part of the area's future. A recent study in the South West of England showed that three quarters of businesses relocating to the area cited an attractive environment as their reason for doing so: the natural environment attracts economic investment. In addition, there is evidence to suggest that property prices rise by at least 3% if the property is located in close proximity to a good quality park.

3.2. There are pockets of social deprivation within the study area at Westbourne and Westcliff ward (Bournemouth), within Boscombe West ward (Bournemouth) and Grange Ward (Christchurch). **Figure 3.1** illustrates the type of deprivation in the sub-region. The economic benefits of GI in relation to health care services are outlined in **Section 2 (Health and Well Being).**

3.3. Economic development in South East Dorset must have the natural coastal and rural features of the sub-region at its heart. Dorset has more international and national designations for landscape and natural environmental quality than any other English county, and there is potential to further harness some of these to deliver economic benefits.

KEY FEATURES

Bournemouth, Poole, Christchurch Urban Conurbation & surrounding towns

3.4. The Regional Economic Strategy (RES) recognises that, as cities and larger towns in the South West region, Bournemouth and Poole have the potential to play a far more significant role in the region. It also states that in order to compete in the global economy, the South West region has to make the most of its natural advantages. In the long-term, in order to be successful, it recognises the need to ensure that the social and environmental capital on which the regional economy depends is both protected and enhanced. The South East Dorset Economic Strategy identified that the per capita GVA in Bournemouth/Poole/Christchurch is lower than that in some of the Region's other urban areas[34].

Environment as an economic driver

3.5. The Regional Economic Strategy (RES) identifies the environment as a key driver for the economy, and incorporates the environment as a core element of its vision for the South West: *the region respects the environment as the foundation of people's quality of life and as a business opportunity.*

3.6. More specifically, the RES states:

- Over 12% of the regional economy relies directly on the land and landscape;
- business efficiency can be enhanced through better environmental management;
- environmental technologies and services, such as renewable energy, represent a huge global market where the South West can become a leader.

3.7. The Regional Development Agency has identified priority sectors within the South West for specific intervention, including food and drink, tourism and marine – Poole has been identified as an important marine centre.

[34] para.5.2.5, SED 07: Economy, South East Dorset Strategy (Nov 2005).

Forestry

3.8. There is extensive woodland and forest coverage in South East Dorset, as shown in **Figure 3.2.** This is a mosaic of coniferous plantations which are mainly used for recreation and semi-natural broadleaved woodland, some of which is classified as ancient woodland and has high biodiversity value. There is potential for some areas of semi-natural woodland to be more actively managed, for sustainable timber, wood fuel or coppice and pollard harvesting. A recent study by the Forestry Commission and SW Regional Development Agency has highlighted the value of forests in the South West[35]. The study highlights that woodland in the South West is used for a range of recreational activities, including cycling, orienteering and combat games, but that of the £211 million generated by recreational trips to forests each year, only a fraction goes to the owners and managers of the woodlands. This limits incentive for woodland owners to provide new access opportunities. If woodlands are to deliver more public benefits, then initiatives must be financially sustainable. In addition, South West England has one of the best climates in Europe for growing trees, and the capacity for timber production should be utilised. The viability of maintaining the regions woodlands in the long term will be reliant on the sustainable and effective management of this resource. Active management of South East Dorset's woodland for timber and wood chip production would also reduce the need to import timber into the region from Wales and other parts of Europe, reducing the sub-region's carbon footprint.

Agriculture

3.9. Agriculture is the main land use in rural areas of South East Dorset. Agricultural land quality and farm stewardship schemes are shown in **Figure 3.3**. The Bournemouth, Dorset and Poole Economic Development Strategy[36] comments that agriculture has poor employment prospects, but that efforts to reduce 'food miles' and provide local high quality produce may provide some employment opportunities in food and drink production for rural communities. Community supported agriculture (CSA) is a useful mechanism for re-connecting communities with their local farms, and providing a guaranteed income for farmers. The CSA approach encourages people to invest in their local farm, in return for a share of the yield. The community can influence what is grown on the farm, and agree a fixed investment at the start of the season. This provides the farmer with a secure income, and a greater and fairer return for their products as they can sell directly to the consumer[37].

Rural diversification

3.10. There are a number of different EU funded rural diversification schemes in place in the study area. These include the Direct from Dorset food labelling scheme, to encourage consumers to invest in high quality Dorset produce. Others similar schemes include 'Chalk and Cheese', which is active in South and West Dorset, and aims to promote local crafts and skills and enhance the unique landscape, rural economy and communities in the area. The focus of this funding is projects which support *"existing and encourage new sustainable land and marine based enterprises which rely on, and contribute to, the quality and understanding of our unique and beautiful environment"*.

---

[35] South West England Woodland and Forestry Strategic Economic Study. Forestry Commission, South West Regional Development Agency and Land Use Consultants (year unknown)

[36] Raising the Game: The Bournemouth, Dorset and Poole Economic Development Strategy. Bournemouth, Dorset, Poole Economic Development Partnership (2005)

[37] Community Supported Agriculture Action Manual. Soil Association (2009)

Green infrastructure is essential to the sub-region's economy

ISSUES

3.11. In relation to sustainable economic development, the following issues have been identified:

- The regional economy depends heavily on environmental assets. Environmental-based tourism and recreation are particularly important in the study area, and therefore it is economically important to maintain these natural assets.
- The large amounts of growth planned for the sub-region will increase the need/demand for green infrastructure.
- Congested road network, as a result of an over reliance on travel by private vehicle, may put businesses off investing in or relocating to the area.
- Generation of a sustainable supply and market for woodland products would encourage active management in tandem with delivery of biodiversity and recreation benefits.
- Farming and agriculture are suffering from a range of pressures, including competition from overseas, climate-related crop failure and disease such as Tuberculosis.
- High levels of multiple deprivation in Bournemouth's coastal wards (Central, East Cliff and Springbourne) and Boscombe West.
- South East Dorset's rural areas have pockets of deprivation, and low annual income.
- Shortage of employment land and buildings for new and expanding businesses in rural Dorset.

Bournemouth Seafront – The quintessential English seaside and an invaluable tourism asset

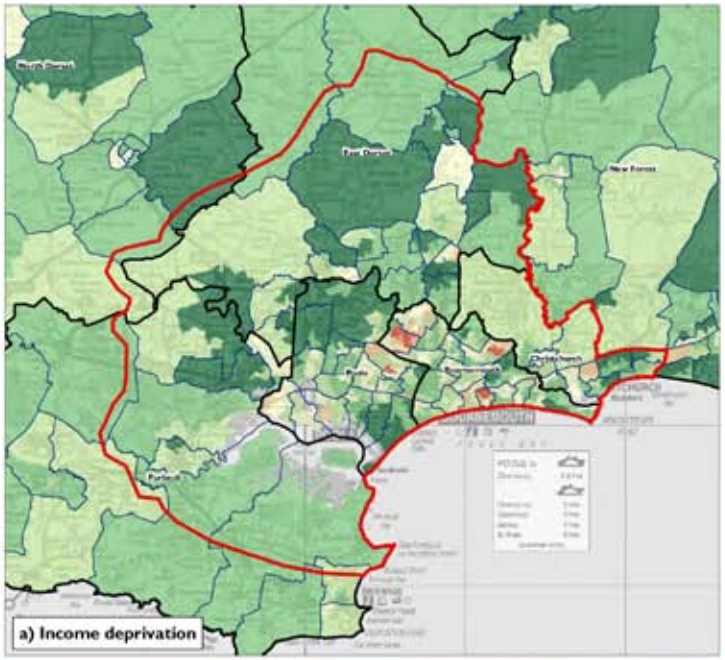
OPPORTUNITIES

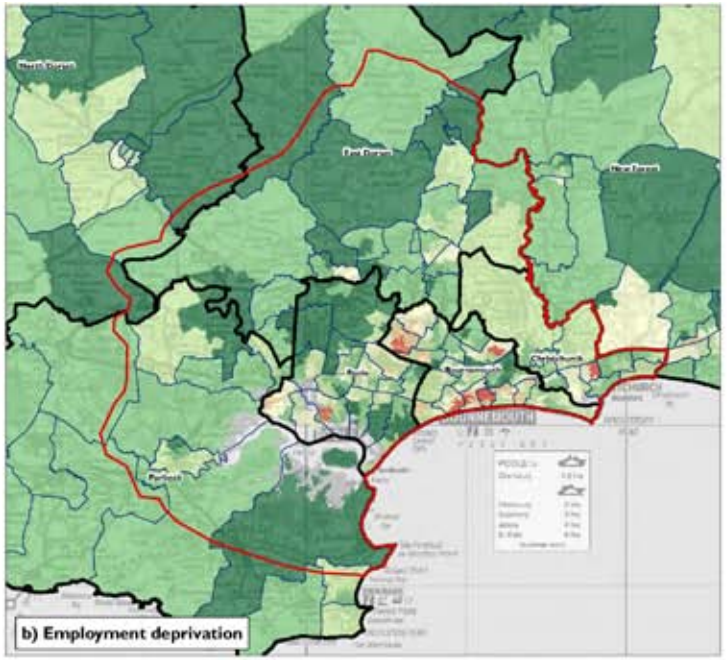
3.12. The following opportunities have been identified:

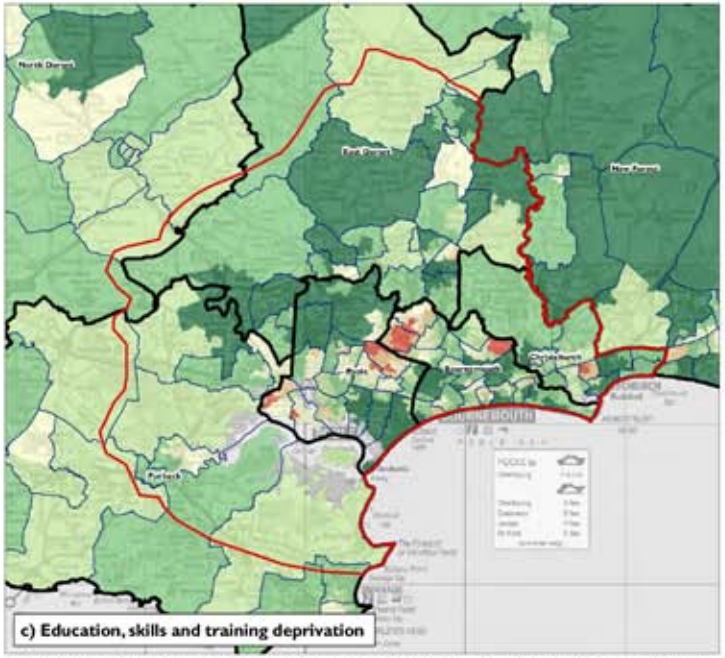
- Attractive low-carbon commuting options should be promoted in line with the Local Transport Plan.
- Improve existing employment sites through better landscaping provision and connection to the cycle/footpath network.
- Planting and harvesting of fuel crops, such as willow, poplar, sawdust, straw, and wood. Where appropriate, these may also provide recreational, flood management, or habitat functions.
- Potential to create jobs, skills and contribute to GDP by ensuring more woodlands are sustainably managed for timber, where a good quality timber can be achieved, and low-carbon fuel such as wood chip from poorer quality timber.
- Reintroduce traditional woodland management at ancient woodland sites and urban woodlands to benefit biodiversity, sense of place and cultural heritage interpretation, and to provide jobs and skills opportunities.
- Improved management of the wooded chines along the coast for wildlife, recognising heritage and tourist value of the coast and chines and improving accessibility.
- Increase business relocation within the sub-region by maximising the attractive setting, including ensuring high quality green spaces and landscape in urban areas areas, and creating 'gateways' to the sub-region to enhance the 'sense of place' and appeal of the urban conurbation.

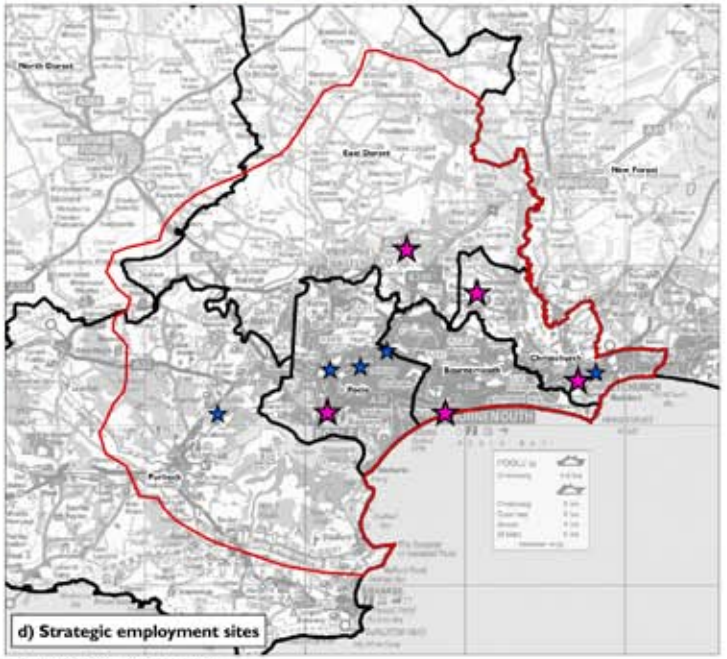
- Investment in and marketing of wood fuel and wood chip as more sustainable fuel options could help to create forestry jobs in rural areas, and ensure that more of the woodland resource is sustainably managed.
- Further research into opportunities for rural diversification should be undertaken.
- Opportunity to maximise the potential tourist draw of rural areas through investing in educational centres at strategic locations, both through direct employment and indirectly through local supply chains, as well as encouraging visitors and enhancing the tourist offer.
- Support and encourage Community Supported Agriculture (CSA) to provide a fairer and more secure income for local farmers.
- There is potential to improve the environment in more socially deprived wards and therefore helping to alter the perception of these areas.
- Continue to progress Borough of Poole's strategic priority of developing Upton Country Park as a focus for wildlife and heritage[38].
- Reuse of redundant rural buildings and sites for employment uses appropriate to Green Infrastructure provision. Providing local employment opportunities and high quality workspace in an attractive rural setting.

[38] Borough of Poole (April 2009), 'The Future Direction of Upton Country Park'









South East Dorset Green Infrastructure Framework

Figure 3.1: Economic development

Key

- Study area
- Local authority boundaries
- Ward boundaries

Key for a - c)

Percentile of England wide rank (%)

- 0 - 10 (most deprived)
- 10 - 20
- 20 - 40
- 40 - 60
- 60 - 80
- 80 - 100 (least deprived)

Key for d)

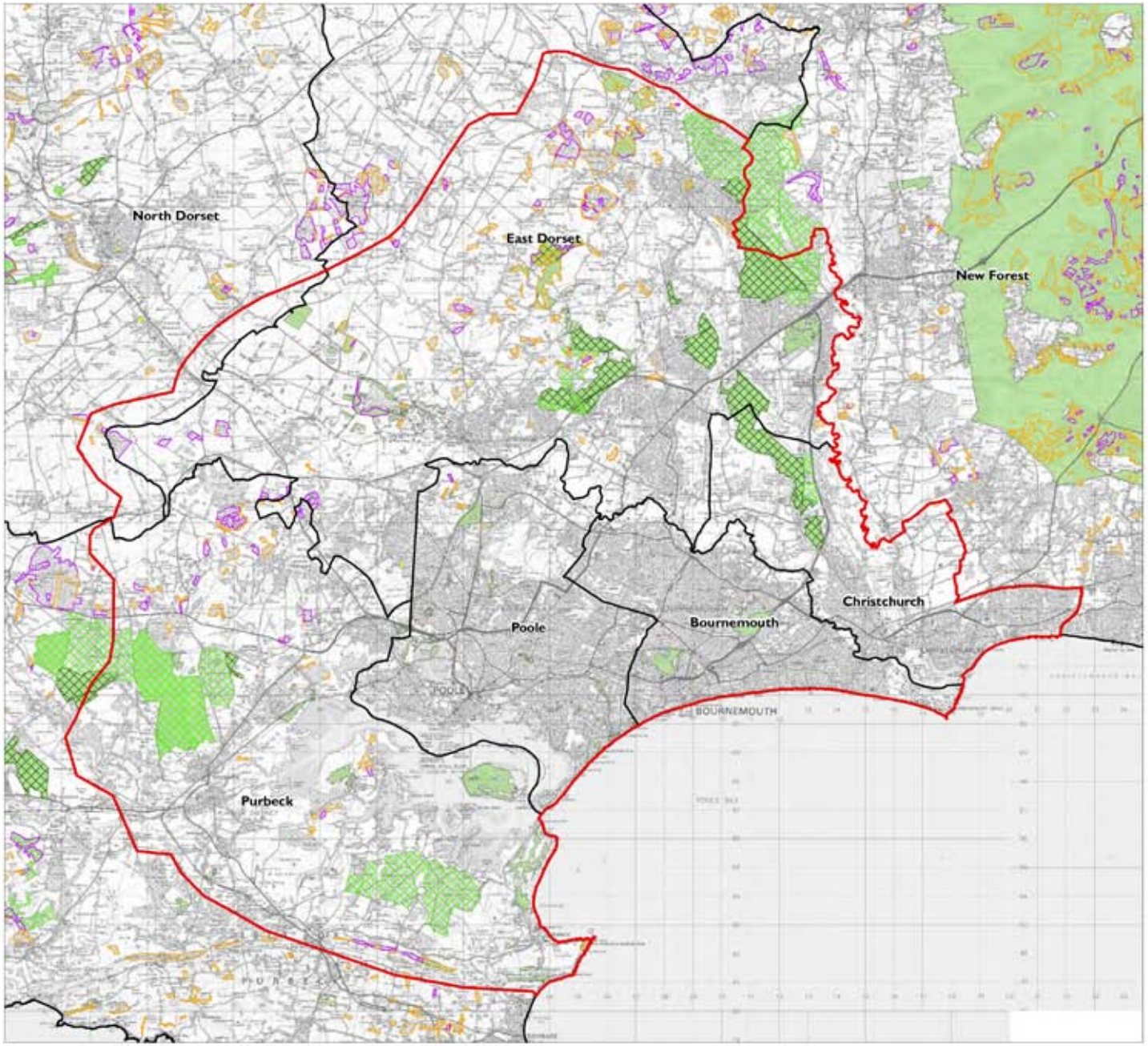
- Strategic employment areas
- Main industrial estates

N W E S 0 1 2 4 6 8 Km

Source: Ordnance Survey, ONS, CLG 2007, Dorest County Council

Date: 17/08/2009
Revision: A

File: S:\4600\4641 South East Dorset Green Infrastructure Study\GIS\Themes\ArcGIS\9\4641-01_051_Socio-econ_sheet4_RevA.mxd



South East Dorset Green Infrastructure Framework

Figure 3.2: Forestry

Key

- Study area
- Local authority boundaries
- Ancient & semi-natural woodland
- Ancient replanted woodland
- Woodland Trust sites
- Woodlands for people (Woodland Trust)

Forestry Commission land

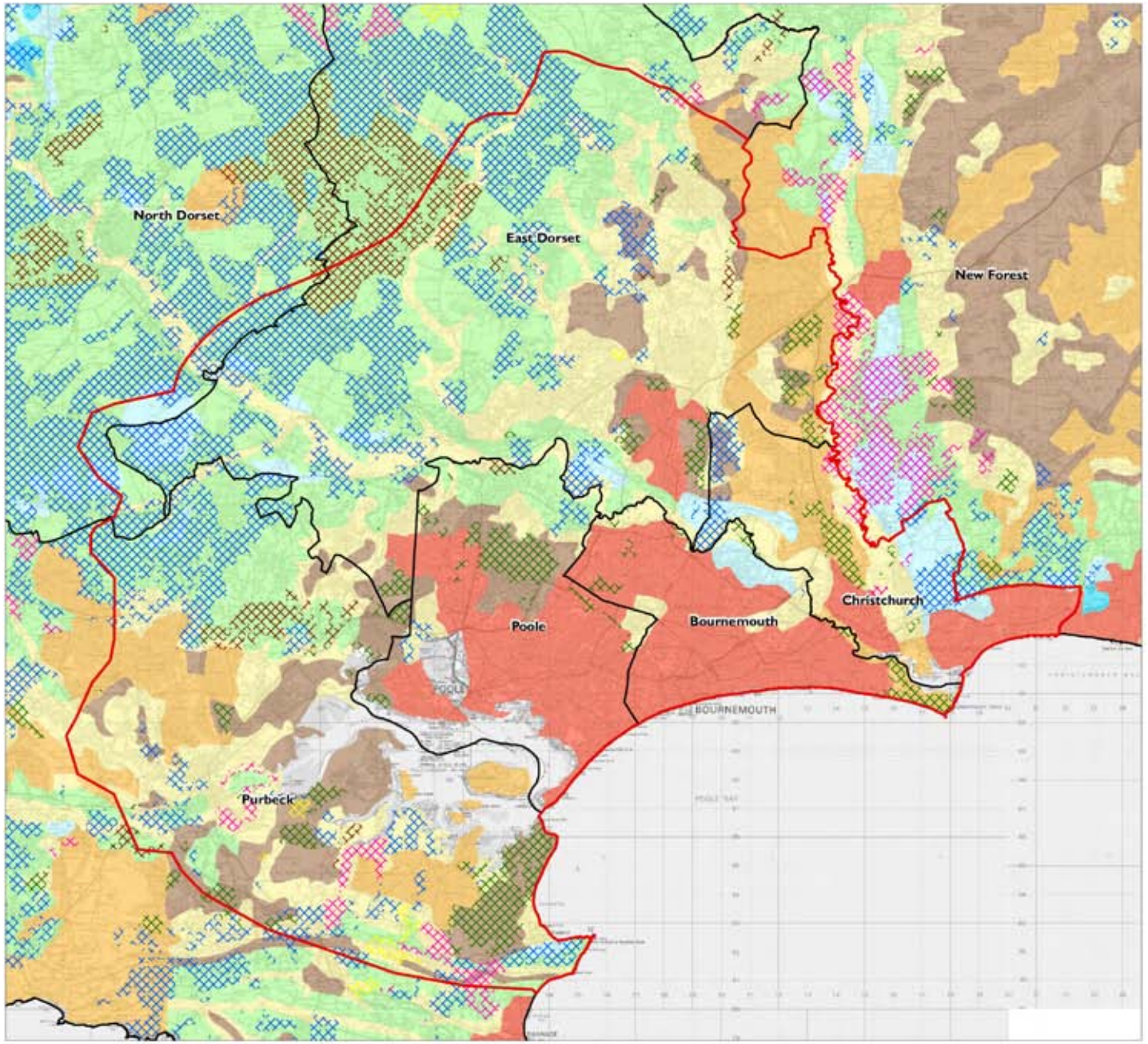
- Freehold
- Leasehold

N W E S 0 1 2 4 Km

Source: Woodland Trust, Forestry Commission, Natural England

Date: 25/06/2009
Revision:

File: S:\4600\4641 South East Dorset Green Infrastructure Study\GIS\Themes\ArcGIS\P4641-01_053_Forests.mxd



South East Dorset Green Infrastructure Framework

Figure 3.3: Agricultural land management

Key

- Study area
- Local authority boundaries

Agricultural land classification

- Grade 1
- Grade 2
- Grade 3
- Grade 4
- Grade 5
- Non agricultural
- Urban

Areas under Environmental Stewardship Agreement

- Higher Level Stewardship
- Entry Level plus Higher Level Stewardship
- Entry Level Stewardship
- Organic Entry Level Stewardship
- Organic Entry Level plus Higher Level Stewardship

N W E S 0 1 2 4 Km

Source: DEFRA, Natural England

Date: 17/08/2009
Revision:

File: S:\4600\4641 South East Dorset Green Infrastructure Study\GIS\Themes\ArcGIS\P4641-01_052_BMV.mxd

4. TOURISM

OVERVIEW

4.1. Tourism is South East Dorset's leading industry, creating almost 39,000 jobs and generating an annual income of over £1,323 million[39]. This amounts of approximately £936 million in Gross Value Added (GVA) to the economy, or around 8% of total GVA. Dorset's natural environment is its greatest asset, and must be conserved and enhanced in order to maximise the potential for environmental tourism, whilst ensuring that the quality of these natural assets are protected. South East Dorset's existing formal visitor attractions are shown in **Figure 4.1.**

4.2. South West Tourism recorded 8.87 day visitors and 2.37 million longer term visitors in 2007. Of these visits, over half are visits to urban areas, a quarter to the coast, and less than a quarter to the rural areas of Dorset. Significantly less income is generated from the rural visits than from the urban and coastal visits.

4.3. There is potential for green infrastructure enhancement to contribute towards further opportunities for rural and marine-related tourism, creating jobs and income in South East Dorset. There is a growing body of evidence which suggests that cycle trails can generate significant economic benefits for the local community[40]. Carol Wilson, Environment Adviser at the South West RDA, said: "The Camel Trail has brought enormous economic benefits to North Cornwall, while helping to link people with their places of work."

4.4. Studies of use of the Tarka Trail in Devon show that on the basis of surveys carried out in the mid 1990s, over 483,000 people were using the Tarka Trail annually and well over half of these were tourists from outside the area. Devon County Council estimated that during 1995 the Trail had generated an income of GBP 18 million and created over 500 jobs directly[41].

KEY FEATURES

Coastal tourism

4.5. With an extensive coastline, two harbours, a maritime history and a diverse marine environment, South East Dorset has great potential for marine tourism. Leading tourist attractions along the coast include Swanage Railway, Studland, Bournemouth, Sandbanks and Hengistbury Head, as well as the 'Jurassic Coast' World Heritage site which lies just south-west of the study area. Overall, the coast is a major draw to the sub-region, and has an important role to play in eco-tourism.

4.6. Maintaining Dorset's natural resources, including the coastline will be essential to maintaining the area's appeal to visitors. Litter pollution along the coastline is a problem due to the 8,000km sea catchment area, and large amounts of plastic and other litter tends to accumulate in the bays along the Purbeck coast. The Dorset Coast Forum are actively engaged in improving the coastal landscape and environment for people and wildlife, most recently hosting a Marine Litter Conference to address the high levels of litter which are washed up on Dorset's shores.

4.7. The South West Regional Observatory recorded the following in relation to the region's marine environment:

[39] South West Tourism website: http://www.swtourism.org.uk/

[40] http://www.objectiveone.com/client/media/media-599.htm

[41] Fred P. Bosselman, Craig A. Peterson & Claire McCarthy (1999) Managing Tourism Growth

- 94.5% of the region's 192 beaches met the mandatory (Imperative) standards in 2008, slightly lower than the 98.4% compliance in 2007, whilst 74.9% of the region's bathing waters met the more stringent EU (guideline) standards. The majority of South East Dorset's beaches met both the UK and EU bathing water standards. [42]

- In 2008, the South West region recorded the highest density of litter found on beaches with 3,230 items found per km - 60% higher than the English average.

Urban tourism in the main conurbation

4.8. The Bournemouth Seafront Strategy[43] recognises the importance of the natural habitats along the seafront, and the need to embed sustainable practice in the future management of the seafront. The Strategy identifies a number of objectives, which require:

- Better conservation management of the cliffs, chines and associated habitats;

- Seafront interpretation of the natural environment which is intrinsic to the seafront;

- Investigate options for selling or using seaweed waste as commercial fertiliser.

- Encourage use of low carbon energy sources, recycled building materials and reduced energy use, and celebrate this through interpretation along the Seafront.

Rural tourism

4.9. Despite the beautiful and varied countryside, Dorset's rural areas are the least visited parts of the county but the numbers are still important for overall tourism. Features of rural Dorset include the two AONBs: the Dorset AONB, and the Cranborne Chase and West Wiltshire Downs AONB. In addition, the Dorset Heaths, the River Stour, the Purbeck chalk downlands, and Blackmore Vale as immortalised by Thomas Hardy, all have potential to draw considerable rural tourism. The small villages and market towns, such as historic Wimborne, in the rural hinterland of the area have many visitors and tourists. As mentioned in Section 3 (Sustainable Economic Development), British agriculture has poor employment prospects, and rural tourism offers a form of rural diversification to help secure better income for farmers and rural landowners. Moors Valley Country Park is the most visited tourist attraction in East Dorset with over 825,000 visitors in 2008 (South West Tourism). The Heavy Horse Centre near Verwood is another popular rural local attraction. Rural East Dorset regularly attracts high numbers of (often repeat) visitors to the countryside, attracted to the culture, the AONB and events.

ISSUES

4.10. The following issues have been identified in relation to environmental tourism in South East Dorset:

- The South West region recorded the highest density of litter found on beaches.

- Lack of regulation has meant that the marine environment has not been well protected in the past.

- 80% of visitors to the Dorset coast travel by car, due in part to poor provision of public transport which has a tendency to be focussed on needs of residents rather than visitors[44].

[42] http://www.swenvo.org.uk/themes/marine-environment/bathing-water/

[43] Bournemouth Borough Council (2007). Seafront Strategy 2007-2011

[44] Tourism Topic Paper. Dorset Coast Forum (year unknown).

OPPORTUNITIES

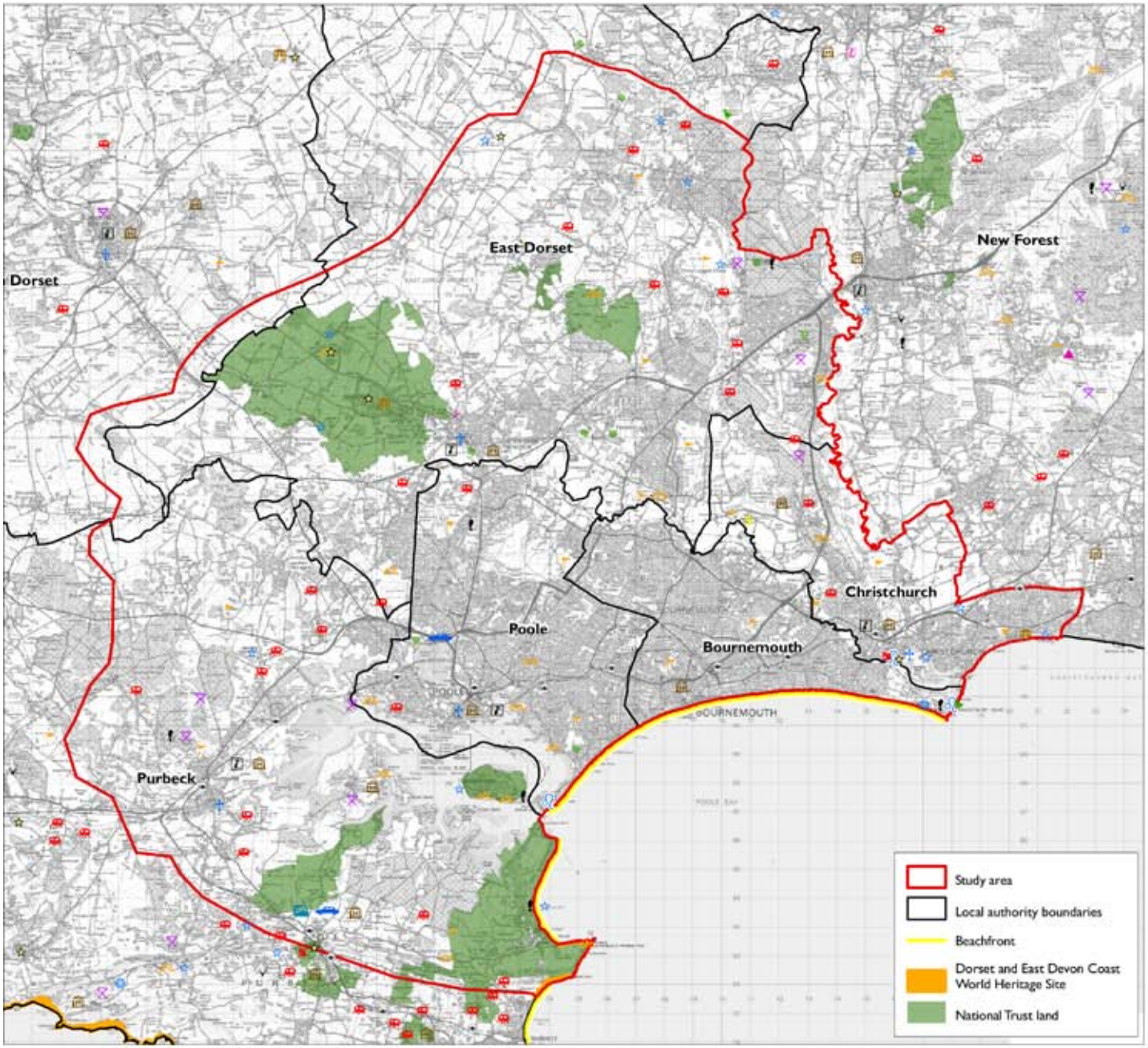
4.11. GI could contribute to alleviating existing pressures, supporting eco-tourism opportunities and enhancing the marine environment in the following ways:

- Develop an enhanced network of attractive walking and cycle routes, with sign-posting and interpretation joining up urban areas with the coast.
    - Build upon existing assets (e.g.: the seashore across the study area, the Castleman Trail)
    - Develop and promote round-trip walking and cycling routes, particularly linking the coast and rural tourism locations.
- Expand the existing demand-responsive transport system to improve public transport to rural areas from transport hubs such as Bournemouth, Poole and Christchurch train stations and Bournemouth Airport.
- Provide increased cycling provision from centres of housing growth to areas of greenspace to reduce the need for people to use their car to access outdoor recreation locations.
- Promote angling tourism by providing information on free fishing locations and local angling clubs. Increasing access to these areas for all ages and abilities, by creating easily accessible river pathways and building areas for disabled anglers to increase angling provision.
- Improve sustainable access to Purbeck, which has great eco-tourism potential but is currently isolated from the rest of the sub-region. Work with the number 53 bus service to the Jurassic Coast as a key public transport service to the area.
- Build on the approach proposed in the Bournemouth Seafront Strategy promoting conservation management and interpretation of the whole seafront in the study area, to provide a high quality coastal draw for tourists.
    - Protect and enhance coastal chines
    - Provide naturalized, coastal-appropriate landscaping along the Promenade where appropriate
    - Allow for sensitive recreational facilities, such as BBQ fires where appropriate.
    - Retain and promote Blue Flag Awards for Bournemouth's beaches.
- Encourage the use of South East Dorset's waterways, to expand the sub-region's unique tourism offer.
    - Provide facilities for boats/kayaks mooring along local rivers and harbours.
    - Provide waterside cycle and walking routes (e.g.: such as those proposed in the Stour Valley in **Section 12** of this report).
- Existing sustainable transport initiatives should be joined up and promoted as an integrated network where possible. For example, the Bournemouth Land Train and the Hengistbury Head train could be linked, and Dorset County Council is committed to re-establishing rail between Wareham and Norden Halt, to allow a continuous rail connection between Swanage and Purbeck. Other existing initiatives include:
    - Swanage Railway Park & Ride Scheme
    - Purbeck Cycle Routes

- Short Term Ticket Initiatives
- Weymouth Hopper Buses
- Jurassic Coast Bus- Bournemouth-Exmouth
- Poole Land Train
- Somerset and Dorset Trailway/Castleman Trailway. The former Somerset and Dorset railway is being restored as a long distance bridleway from Poole to Bath. The lower part of this, known as the North Dorset Trailway, will run along the Stour through Corfe Mullen and Sturminster Marshall in East Dorset and into the conurbation.

- Opportunity for woodlands to provide a venue for leisure-based businesses.

- Use Moors Valley Country Park as an exemplar of best practice in countryside recreation and education and as a model for new strategic green spaces in the study area.



South East Dorset Green Infrastructure Framework

Figure 4.1: Tourism

Key

- Railway station
- Park and Ride
- Youth Hostel
- Wildlife Centre (open to the public)
- Viewpoint (360 degrees)
- Tourist Info Centre (seasonal)
- Theme Park (open to the public)
- Garden (open to the public)
- Craft Centre (open to the public)
- Castle (open to the public)
- Abbey/Cathedral/Priory (open to the public)
- Camping or caravan site
- Country Park (open to the public)
- Golf course
- Historic house (open to the public)
- Landmark/antiquity
- Museum (open to the public)
- Nature reserve
- Nature or forest trail
- Other tourist attraction (open to the public)
- Picnic site
- Preserved railway
- Tourist info centre (open all year)
- Viewpoint (limited)
- Ferry

N, W, E, S

0 1 2 4 6 Km

DRAFT

Source: Ordnance Survey, National Trust, English Heritage

Date: 12/08/2009
Revision: B

File: S:\4600\4641 South East Dorset Green Infrastructure Study\GIS\Themes\ArcGIS\P4641-01_007_Visitor_attractions_RevB.mxd

5. TRANSPORT AND ACCESS

OVERVIEW

5.1. The South East Dorset Local Transport Plan states that traffic continues to grow in the Poole/ Bournemouth/Christchurch conurbation, and that bus services are severely disrupted on some transport routes due to traffic levels. It states that the provision of a high capacity road network to cater for local traffic would not be affordable or effective in addressing these problems.[45]

5.2. Despite the relatively short distance of some journeys within the conurbation, only 6% of commuters travel by bus or rail (the national average for commuting by bus alone is 15%)[46]. Buses are the key public transport option for local journeys and are especially important for socially excluded and lower income groups. Approximately 20% of households in the conurbation do not have access to a car; however, despite this, the trend of patronage for local bus services has been one of general decline.[47]

5.3. Services in the rural areas of the sub-region, including East Dorset, Purbeck & north Christchurch, are far less accessible by public transport than the urban areas of Bournemouth and Poole[48]. The buses in East Dorset are well used where a service is provided, especially by the over 60's who receive free bus travel. The bus services in the rural communities in East Dorset are less frequent

5.4. The provision of cycle and walking routes has recognised benefits for access to services, as well as environmental quality, health, and recreation functions. There is also a growing body of evidence in the South West to suggest such routes also provide economic value.[49]

KEY FEATURES

5.5. **Figure 5.1** shows the sub-region's transportation network, including prime roads, rail stations, and the local and national cycle network.

5.6. There is an extensive network of public footpaths and sub/regional trails throughout South East Dorset, mainly focused in the countryside and urban-rural fringe around the urban conurbation. These are explored in more detail in the Open Space and Recreation chapter.

5.7. There is significant planned development in Poole, including redevelopment of Poole rail station, the Twin Sails Bridge which will provide a second harbour crossing, and a new transport interchange.

ISSUES

5.8. South East Dorset's access and transportation issues include high levels of traffic, poor public transport accessibility in rural areas, and inadequate cycle routes, and poor quality pedestrian realm in some areas.

---

[45] Local Transport Plan, Introduction. Bournemouth Borough Council website: http://www.bournemouth.gov.uk/Residents/roads/transport/LTP/Introduction/default.asp

[46] para.3.6, SED 09 – Commuting. South East Dorset Strategy (Nov 2005).

[47] paras.2.3 & 2.6, Bus Strategy. Appendix to South East Dorset Local Transport Plan (March 2006).

[48] para.3.85, Accessibility Strategy. South East Dorset Local Transport Plan, Volume 3 (March 2006).

[49] For example, the South West Regional Development Agency states that investment in the Camel Trail in North Cornwall "has brought enormous economic benefits.. while helping to link people with their places of work" (SWRDA press release: http://www.objectiveone.com/client/media/media-599.htm). Similarly, Devon County Council estimated that during 1995, the Tarka Trail had generated an income of £18 million and created over 500 jobs directly (Managing Tourism Growth (1999) Fred P. Bosselman, Craig A. Peterson & Claire McCarthy).

- The viability of public transport differs significantly between rural and urban areas of the sub-region. Bournemouth and Poole are within the best 20% nationally in terms of access to primary schools by public transport while, in contrast, rural Dorset is within the worst 20% nationally[50].

- There is inadequate public transport provision to recreational/open spaces in rural locations. Transport providers are unlikely to extend service to such areas unless a route is expected to be profitable.

- The sub-region has a high proportion of elderly people, who may have limited mobility, may not be able to drive, or may have difficulty navigating public transport systems[51].

- There is concern that traffic associated with the local economy's vital tourism and leisure sector is detracting from the attractiveness of the area.

- Concurrently, there is a widely held view in the local business community that poor highway infrastructure is threatening the economic viability of South East Dorset[52].

- Poor quality pedestrian realm in some areas:

    - Pedestrians experience difficulties crossing roads, intimidating environments (subways, no natural surveillance, etc.)

    - There is a need for more street seating and the need to improve the condition and signposting of public footpaths[53].

- There is an identified need to increase the number of cycleways and facilities, and to improve safety along cycleways[54].

- Major transport/economic hubs in the sub-region, including the port and airport, are adjacent to internationally recognised sites of nature conservation interest[55].

- Annual passenger numbers at Bournemouth Airport are expected to rise dramatically, from 0.49 million in 2004 to at least 3.5 million by 2029[56].

The visioning exercise raised the importance of providing linkage and connectivity within GI, especially from urban growth areas and areas of deprivation.

[50] para.3.61, Accessibility Strategy. South East Dorset Local Transport Plan, Volume 3 (March 2006).
[51] Local Transport Plan, Key Transport Issues, Social Exclusion. Bournemouth Borough Council website: http://www.bournemouth.gov.uk/Residents/roads/transport/LTP/Key_Transport_Issues/social_exclusion.asp
[52] para.2.31, South East Dorset Local Transport Plan (March 2006).
[53] pg.61, *Accessibility Strategy*. South East Dorset Local Transport Plan, Volume 3 (March 2006).
[54] pg.61, *Accessibility Strategy*. South East Dorset Local Transport Plan, Volume 3 (March 2006).
[55] para.1.7, South East Dorset Local Transport Plan (March 2006).
[56] para.2.35, South East Dorset Local Transport Plan (March 2006).

Cycling for transport and recreation should be encouraged through improved cycle routes

OPPORTUNITIES

5.10. GI can support sustainable transport and accessibility by enhancing everyday travel routes in urban and rural areas.

- Work with Dorset County Council and Sustrans to incorporate GI functions into safe walking and cycle routes for school children through initiatives including local School Travel Plans and with Sustrans 'Safe Routes to School' initiative[57].
- Provide pleasant and safe pedestrian access on busy streets and across barriers such as major roads or railways.
- Enhance existing and create new Public Rights of Way and cycle routes that offer efficient access to service and employment and centres, and to recreational destinations, from residential areas. Discussions with members of the Steering Group indicate several specific opportunities:
- A key cycle corridor is being developed in Bournemouth from the Lansdowne/Travel Interchange to Kings Park, Littledown and the Hospital. The route connects with another from Kings Park to the Promenade along Woodland Walk. This network will provide excellent links between residential areas, schools, the Hospital and the major employment centre at Chaseside. Bournemouth Council have recently been awarded significant match funding from Cycling England to complete the network.
- Improve NCN route 2 along the Promenade in Bournemouth by permitting cycling across Pier Approach during the same times as on the Promenade either side.

[57] Safe Routes to School, Sustrans website: www.sustrans.org.uk/what-we-do/safe-routes-to-schools

- Improve the Bourne Valley Greenway by finding some means of cycling across the Town Centre without having to dismount.

- The former Somerset and Dorset railway is being restored as a long distance bridleway from Poole to Bath. The lower part of this, known as the North Dorset Trailway, will run along the Stour through Corfe Mullen and Sturminster Marshall in East Dorset and into the conurbation. There is scope to extend the Castleman Trailway along the old railway line past the Ferndown Industrial Estate to provide an off-road commuter cycle route to West Moors, Colehill/Wimborne. This might help reduce some of the short commuter car trips on the A31 and local roads.

- There is a potential opportunity to create a new trail along parts of the old railway line from Christchurch to Ringwood. Aerial photos suggest that a largely off-road route (using Marsh and Dudmoor Lanes) from Christchurch to the Avon Causeway could be possible. This route could also provide an attractive recreational amenity.

- Consider the needs of cyclists when introducing traffic calming or highway improvement measures, such as dedicated cycle-lanes at congested or dangerous junctions.

- Provide secure, covered bike parking at all significant public transport nodes, including rail stations, ferry docks, and park-and-ride stations.

- In the urban-rural fringe, provide cycle-routes that link to train stations and park-and-ride stations, provide ample bike parking, and link to other urban and rural routes

- Cycle routes in rural areas should address the needs of rural residents and commuters, in addition to recreational users. For example, routes should provide efficient access to service or employment centres.

- Continue to engage with expansion of Bournemouth Airport and associated transport development to incorporate GI and promote non-car methods of transport.
    - Dorset County Council and Bournemouth Borough Council are already involved in work to create a new cycle/walking access route from Bournemouth to the airport site over the River Stour at Throop.
    - In particular, include measures targeted toward the 365,000 residents that live within 10km of the airport[58].
    - Pig Shoot Bridge could provide a cycle route to the airport for employees from North Bournemouth.

- Continue to pursue Bournemouth Borough Council's Green Space Strategy objectives[59], which include policies to:

    - Develop the Stour Valley Way as a continuous countryside route, from Hengistbury Head to Millhams Mead, accessible for all to enjoy (policy CN13)

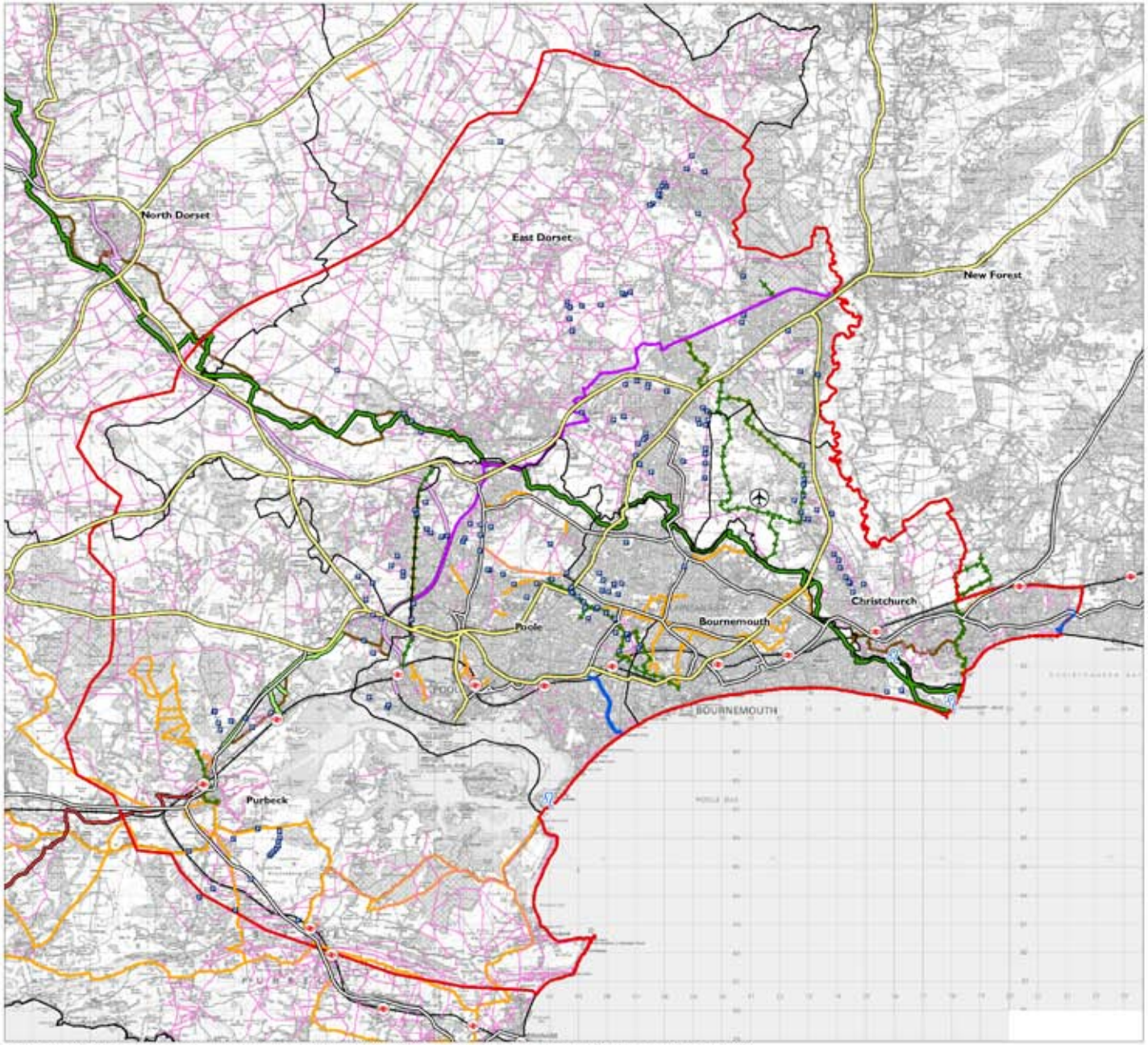
    - Obtain funding to develop a multi-user (horse/bike/pedestrian) crossing at Pig Shoot Lane, so residents can access employment and recreational opportunities in the Hurn area (policy GW7).

- South East Dorset's waterways may function as transport or access routes.

[58] Table 2.3, South East Dorset Local Transport Plan 2006-2011 (March 2006).
[59] Green Space Strategy 2007-11. Bournemouth Borough Council (Dec 2006).

- Provide facilities for boat/kayak moorings along local rivers and harbours. Moorings in Poole Harbour, for example, may offer opportunities for daily travel by waterway, in addition to recreational use; however, private property and environmental constraints will have to be negotiated.
- Provide water-side cycle and walking routes, and link these to larger multi-modal transport nodes.

- Investigate scope for cross-authority partnership and/or subsidies to provide public transport access to some rural recreational sites, in light of financial constraints.



South East Dorset Green Infrastructure Framework

Figure 5.1: Access and Transport

Key

- Study area
- Local authority boundaries
- Ferry
- Car park sites commonly used for access
- Railway station
- Airport
- Public Rights of Way (data not available for Bournemouth)
- National Cycle Network
- Local Cycle Network
- A road
- Primary road
- Railway
- Chine

Recreational trails

- Proposed Wareham to Upton cycleway
- Purbeck Way West
- Greenways
- Castleman Trailway (southern end proposed)
- Stour Valley Way
- Proposed North Dorset/Somerset and Dorset Trailway

N W E S 0 1 2 4 Km

Source: Ordnance Survey, Office of National Statistics & Dorset County Council, Sustrans

Date: 03/12/2009
Revision: D

File: S:\4600\4641 South East Dorset Green Infrastructure Study\GIS\Themes\ArcGIS\4641-01_020_Transport_RevD.mxd

6. WATER MANAGEMENT AND CLIMATE CHANGE

OVERVIEW

6.1. The Poole, Bournemouth and Christchurch conurbation is located on the coast, with several main rivers flowing through the study area and entering the sea at Poole and Christchurch harbours. There are several water management issues in the area, including a number of locations which are at risk of fluvial and tidal flooding, and several main rivers which do not currently meet ecological or chemical water quality standards.

6.2. The UK Climate Impact Programme suggests that the climate of South East Dorset is likely to become warmer and wetter in winter, and hotter and drier in summer.

6.3. The 2009 figures predict that by 2080, changes to the South West's winter climate under the Low Emissions Scenario are a mean increase in temperature of 2.4°C and a mean increase in precipitation of 19%, and a mean summer temperature increase of 2.9°C, and precipitation decrease of 15%. Under the High Emissions Scenario, the region could experience a mean winter temperature increase of 3.4°C, and precipitation increase of 31%, and a mean summer temperature increase of 5°C, and mean summer precipitation decrease of 29%[60]. It is also predicted that sea level rise will increase on 1990 baseline by between 18.4cm and 25.8cm by 2050[61].

6.4. In light of this, the numerous rivers flowing through the sub-region, and the extensive coast within South East Dorset, climate change adaptation will be a crucial part of future planning. The Dorset Climate Change Coalition[62] identify a number of messages that they wish to convey, of which green infrastructure implementation and management can contribute to the following:

- Take a walk
- Enjoy local seasonal food
- Garden for wildlife

WATER ENVIRONMENT

6.5. The main river catchments within the study area are the *Stour*, *Avon*, and the *Frome and Piddle*. The EA Catchment Flood Management Plans for each catchment identify several priority actions for each, some of which can be complemented or partially delivered through green infrastructure.

6.6. Strategic Flood Risk Assessment (SFRA) has been completed for:

- Poole
- Bournemouth, Christchurch, East and North Dorset
- Purbeck

[60] DEFRA (June 2009) UK Climate Projections website: http://ukclimateprojections.defra.gov.uk
[61] DEFRA (June 2009) UK Climate Projections website: http://ukclimateprojections.defra.gov.uk/content/view/2145/9/
[62] Climate Change: Spreading the Message and Action in Dorset – Final report to the Dorset Strategic Partnership. Dorset Climate Change Coalition (March 2009).

6.7. The Environment Agency's flood mapping system defines areas at a medium to high risk of flooding as Flood Zone 3. As shown in **Figure 6.1**, significant areas of central Christchurch which are adjacent to the Stour and Avon rivers lie within Flood Zone 3, and there are some areas on the northern edge of Bournemouth, along the Stour Valley which also lie within this flood zone. There are small pockets of urban land within Flood Risk Zone 3 to the west of Poole, but the majority of the town is not at risk from fluvial flooding. However, the predicted impacts of man-made climate change mean that low-lying coastal areas such as Poole town centre will be subject to increased tidal flooding caused by a combination of sea level rise and storm surge[63].

6.8. Outside the main urban conurbation, large areas of both the Stour and the Avon valleys lie within Flood Zone 3, and this reflects the natural flood plain of those rivers. Large areas of Purbeck are within Flood Zone 3, mainly along the river Frome and also the coastal areas adjacent to Poole Harbour.

6.9. There are two estuaries within the study area; one at Poole Harbour, which is a designated Special Protected Area (SPA) and one at Christchurch harbour (which is SSSI), where the Stour and the Frome meet the English Channel. There are a number of lakes along the Avon river valley north of Ringwood.

The River Stour – Parts of South East Dorset are prone to fluvial flooding, which high quality green infrastructure can help to control

Poole SFRA

6.10. The *Level 1 SFRA* for Poole requires that:

- Those proposing development should seek opportunities to use multi-purpose open space for amenity, wildlife habitat and flood storage uses.

[63] Borough of Poole. (January 2009 Level 1 Strategic Flood Risk Assessment for Poole.

- Flood risk should be lowered by reducing the built footprint of previously developed sites and using sustainable drainage systems (SUDS)[64].

Bournemouth, Christchurch, East and North Dorset SFRA

6.11. The joint SFRA has been informed by assessing the effects of predicted man-made climate change on Flood Zones 2 (Medium Probability of Flooding), 3a (High Probability of Flooding) and 3b (Functional Flood Plain). The report highlights that many of the 'areas of search' for new development outlined in the RSS Proposed Changes intersect with land within *Climate Change Flood Zone 3b* (functional flood plain) or *Climate Change Flood Zone 3a* (high risk of flooding), as shown in **Table 6.1.** This refers to the potential expansion of the flood plain in light of the predicted effects of climate change. The SFRA highlights the importance of sustainable drainage systems in new development, and recommends that *all potential development locations are checked to ensure that capacity exists within the drainage networks to reduce the risk of flooding from these* sources[65].

Table 5.1: Areas of potential development which intersect with Climate Change Flood Zone 3

Local Planning Authority	Total No. of areas	No. development areas		
		Intersecting Climate Change Flood Zone 3b	Intersecting Climate Change Flood Zone 3a	Affected by other sources of flooding
Christchurch BC	1	1	1	0
East Dorset DC	4	3	3	4

Purbeck SFRA

6.12. The 2007 SFRA for Purbeck states that historically fluvial flooding has occurred relatively frequently in the district, and the last major flood occurred in 2001. The main areas of Purbeck where fluvial flooding is predicted are outside of the study area. Coastal flooding also occurs in Purbeck, and is likely to increase as a result of the predicted effects of climate change, such as storm surges and sea level rise.

The River Stour

6.13. The Stour river corridor and Christchurch Harbour have long been recognised as important areas for informal recreation and nature conservation. Ten years ago, the Environment Agency's Local Environment Action Plan (LEAP) identified the importance of this corridor, and highlighted the scope for increasing the recreational and educational uses of the river. The latest Catchment Flood Management Plan (CFMP) identifies a number of actions, some of which can be complemented or partially delivered through green infrastructure policy and provision. These include:

- Stronger development control advice on the use of SuDS, to ensure no increase in run off as a result of new development, and a decrease where feasible.

- Develop a strategy for the Dorset Heaths and Moors, Blackmore Vale and the Upper Stour Valley, to investigate locations for flood attenuation, wetland creation and fish refuge areas.

[64] Borough of Poole. (January 2009) Level 1 Strategic Flood Risk Assessment for Poole.

[65] Bournemouth, Christchurch, East Dorset, North Dorset and Salisbury Strategic Flood Risk Assessment. Halcrow (February 2008).

The Frome and Piddle

6.14. The 2008 CFMP for the Frome and Piddle identifies and prioritises a number of actions to support the sustainable management of this river catchment. These include:

- Investigate the flood risk management opportunities related to woodland planting, and wetland creation, and suitable locations where this can be delivered.
- Identify locations for flood plain restoration, and deliver these as a priority.

Water pollution/filtration

6.15 Under the Water Framework Directive, the UK must aim to reach good chemical and ecological status in inland and coastal waters by 2015. According to the Environment Agency's latest assessments, several of the rivers within the study area are not currently achieving good ecological or chemical status, and some are not predicted to achieve this by 2015. The current and predicted future status of the main rivers which run through the main urban conurbation is outlined in **Table 6.2** below, and demonstrates the scope to improve both the ecological and chemical quality of these rivers.

6.16. There is evidence that diffuse pollution from agriculture is a priority concern in the South West. High rainfall, steep slopes and vulnerable soil types are exacerbating this problem, and have lead to an increase in surface water flooding incidents[66]. Green infrastructure should be designed to reduce soil erosion in vulnerable parts of the study area, and to act as a filter for agricultural run off, to reduce pollution to watercourses and coastal waters in South East Dorset[67].

Table 6.2: Current and predicted ecological and chemical status of main rivers in urban area

River	Ecological status		Chemical status	
	Current	Predicted for 2015	Current	Predicted for 2015
Avon	Poor	Poor	Pass	Pass
Frome	Poor	Poor	Fail	Fail
Piddle	Poor	Poor	Pass	Pass
Stour	Poor	Poor	Fail	Fail

CLIMATE CHANGE MITIGATION & ADAPTATION

Air pollution

6.17. Green infrastructure can mitigate the effect of greenhouse gas emissions by capturing air pollutants. Trees and other vegetation can increase rates of particulate deposition from the atmosphere, and have the capacity to absorb some gaseous pollutants. The expansion of woodland, for example, could contribute to efforts to mitigate climate change.

Urban cooling effects

6.18. Shade from trees has the potential to improve microclimate and reduce heat stress during the summer months by providing direct shade and from evapo-transpiration, which cools the effective temperature and reduces the urban heat island effect. This function of trees and green spaces fits well with the wooded character of many areas of South East Dorset.

[66] South West Regional Observatory website: http://www.swenvo.org.uk/themes/land/soil/

[67] The State of Soils in England and Wales. Environment Agency(2004).

6.19. The incorporation of green roofs and walls in new or retrofitted development also contributes to reducing the urban heat island effect, while further insulating buildings (thus reducing energy consumption for heating and cooling such buildings) and reducing pollution in urban run-off by slowing and cleaning rain water before it reaches the sewage system. Green roofs and walls can be particularly valuable GI assets in urban areas, offering insulation from heat and noise; spatial and/or visual amenity benefit; and biodiversity enhancement in a constrained environment.

Contribute to reducing emissions

6.20. Well planned GI networks can contribute to a reduction in carbon emissions by encouraging more people to travel by foot or bicycle more frequently. This issue is covered in more detail under *Recreation and Access to Nature.*

6.21. As well as removing CO_2 from the atmosphere directly, trees have the potential to reduce emissions from fossil fuel combustion for energy generation by reducing the amount of energy used for heating and cooling of buildings.

Tidal flooding

6.22. Review of the relevant Shoreline Management Plans (SMPs) has revealed the following coastal issues of relevance to the study:

- Potential impact of coastal defence works on Poole Harbour's ecology and protected habitats, navigation, public access to the shoreline and recreational value.
- The need to plan for managed realignment in order to mitigate loss of protected marine habitats from sea level rise.
- The need to minimise the impact of any coast protection works on bird populations, natural historical and archaeological value of the area.

CURRENT ISSUES

6.23. Our analysis of existing studies on water management and climate change mitigation and adaptation in the study area has revealed the following key issues:

- Significant areas of central Christchurch which are adjacent to the Stour and Avon rivers lie within Flood Zone 3.
- Some areas on the northern edge of Bournemouth, along the Stour Valley which lie within Flood Zone 3.
- There are small pockets of urban land within Flood Risk Zone 3 to the west of Poole.
- Fluvial and tidal flooding occurs relatively frequently in Purbeck.
- Tidal flooding is likely to increase along much of the coast as a result of climate change impacts such as increase sea level and storm surges.
- Large areas of both the Stour and the Avon valleys in East Dorset lie within Flood Zone 3, and this will be an important consideration in planning for recreation and access along the corridors.
- Diffuse water pollution from agriculture and soil erosion.

- Poor ecological status of all rivers which flow through the Poole/Bournemouth/ Christchurch conurbation.
- Poor chemical status of the Stour and Frome rivers.
- Abstraction is at capacity along many river stretches in the study area, and this is affecting the ecological and chemical quality of the rivers as well as fisheries.

OPPORTUNITIES

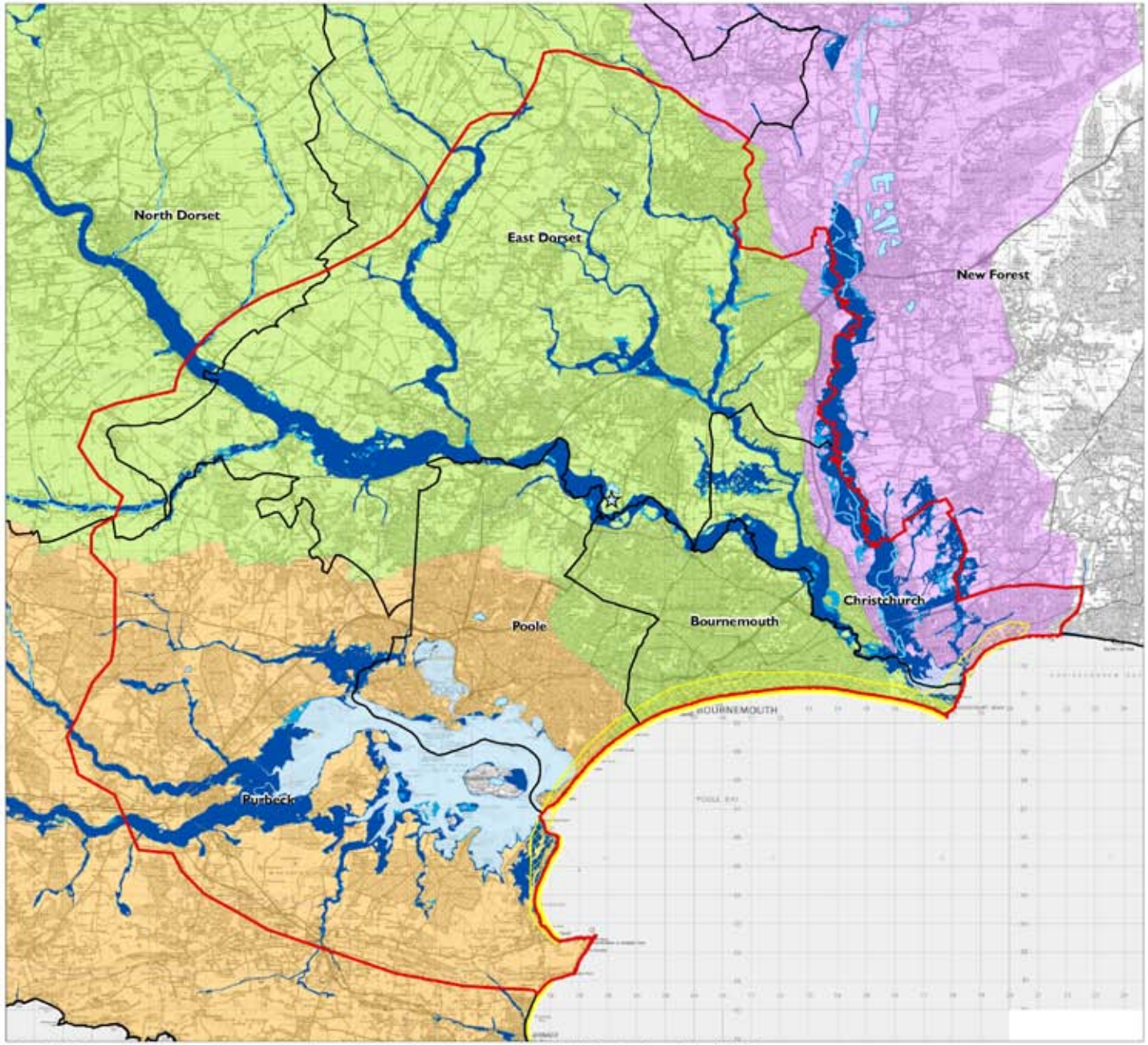
6.24. In broad terms, there are three key complementary water management functions which GI is able to provide:

- Slowing down (reducing run-off rate): in particular, trees in urban environments have a critical role to play in slowing down runoff and preventing peak flows into sewer systems or rivers.
- Infiltrating (reducing run-off volume): GI enables water to infiltrate into the ground. Areas with less compacted soil and with deeper root systems (e.g.: prairie planting versus a mowed lawn) allow greater infiltration.
- Storing: the provision of functional floodplains allows the temporary storage of water and avoids downstream flooding. These areas may also provide recreational or habitat functions.

6.25 More specifically, there are a number of particular opportunities for delivering water management and contributing to climate change mitigation and adaptation within South East Dorset:

- Development proposals should identify opportunities to use multi-purpose open space for amenity, wildlife habitat and flood storage uses.
- Local authorities should retrofit sustainable drainage and greywater systems in urban areas, and ensure their integration within new development.
- Identify locations for flood plain restoration, and deliver these as a priority.
    - Conduct feasibility study into potential for bank-side storage flood attenuation along major rivers in the study area, which could also help to alleviate the environmental effects of abstraction.
    - Potential locations for flood attenuation and wetland creation at Dorset Heaths and Moors, Blackmore Vale and the Upper Stour Valley and Kingston Lacy.
- Potential for managed realignment projects to reduce coastal flooding along some parts of the coast.
- Potential to replace some planned built coastal defences with natural defences where appropriate, to reduce the potential impacts of coastal flood defences on existing ecology, and create new ecological features.
- Maintain and increase tree coverage in urban areas to help to cool buildings and provide shade for the local population. Build upon expertise developed in the emerging Bournemouth Tree Strategy.

- Investigate the flood risk management opportunities related to woodland planting, and wetland creation, and suitable locations where this can be delivered.
- Promote use of wood fuel as a more sustainable and local source of energy in new developments, and conversion in existing developments where appropriate. There is considerable potential for wood fuel provision from forests in the sub-region.
- Forests and woodlands within 10km of the urban conurbation have potential to be managed for sustainable forestry to deliver wood fuel and wood chip to residents and businesses in Bournemouth, Poole and Christchurch.
- Re-establish broadleaved woodland adjoining water courses to improve recharge of the aquifer to provide flood attenuation.
- Connect existing areas of value to wildlife, by creating new habitats at strategic locations, in order to enhance resilience to climate change.



South East Dorset Green Infrastructure Framework

Figure 6.1: Waterbodies and flood zones

Key

- Study area
- Local authority boundaries
- River
- Flood Zone 2: Low to medium risk
- Flood Zone 3: High risk
- Coastal region
- Lake
- Longham Lakes (under construction)
- Harbour region
- Coastal region

Catchment Flood Management Policy Areas

- Frome & Piddle
- Hampshire Avon
- Stour

N W E S 0 1 2 4 Km

Source: Ordnance Survey, Dorset County Council & Environment Agency

Date: 03/12/2009
Revision: D

File: S:\4600\4641 South East Dorset Green Infrastructure Study\GIS\Themes\ArcGIS\P4641-01_012_Waterbodies_and_flood_zones_RevD.mxd

7. RECREATION AND OPEN SPACE

OVERVIEW

7.1. South East Dorset's open space network includes urban parks and gardens, large forest areas, attractive river valleys, extensive but fragmented heathland and of course the coast. Between these areas lies a network of footpaths, bridleways and cycle routes. In some parts of the study area, the connectivity of routes needs addressing; the creation of a cohesive network would provided greater value for all users.

KEY FEATURES

Access networks/Public Rights of Way

7.2. **Figure 7.1** illustrates the open space coverage and rights of way network within the study area.

Cycle networks

7.3. There are several national and local cycle routes in the study area. Many of these routes provide traffic free cycling and link key settlements and open spaces. Some notable examples are outlined below:

- National Cycle Network (NCN) Route 2, when complete will link Dover in Kent to St Austell in Cornwall. Within South East Dorset, the route currently runs through Stoborough in Purbeck on its way from Corfe Castle to Woodsford in West Dorset, and from Christchurch to Poole.
- NCN Route 25 will link Poole with Longleat in West Wiltshire. The section between Poole and Wimborne is open as part of the Castleman Trailway (see below).
- Poole Heritage Cycle Route is a 7.5 mile circular route between Upton Country Park and Poole Town Centre (most of the route now forms part of the NCN route 25). The Borough of Poole has set the development of Upton Country Park as a leisure priority.
- Bourne Valley Greenway is a continuous multi-user, 6.5km route linking Bournemouth Town Centre and Canford Heath.
- The North Dorset Trailway is a multi-user route running for 10km along the old Somerset and Dorset railway line. Within the study area the route runs south east from Spetisbury to Broadstone.
- On the Poole - Bournemouth Promenade cycling is permitted year round except for July and August between 10am and 6pm.
- Northport Greenway is a 1.5 mile walking and cycling route linking Wareham Quay to Wareham Forest via the town centre and Northmoor Park. It provides links to the Sika Cycle Trail which is a 7 mile route around Wareham Forest (parts of which are being turned back into heath).

7.4. Local cycle routes across Poole, Bournemouth and Christchurch are identified on a council map entitled *Cycle Routes in Poole, Bournemouth and Christchurch*, but not available in GIS. The majority are on road cycle routes. There are also a number of proposed routes to provide off road/traffic free links between existing routes.

Footpaths

7.5. There are a number of way-marked walking routes within the study area some of which are regional scale routes linking the whole of the south west's coast and others which are county scale linking key settlements or open spaces within South East Dorset or individual local authority areas. A few notable examples are described below:

- Sections of the South West Coastal Path run through SE Dorset from Swanage to Poole.
- The Stour Valley Way is a 64 mile long distance walk along the River Stour, runs through South East Dorset from the river's source at Stourhead (a National Trust owned site in Wiltshire) to the river's end at Christchurch.
- The Castleman Trailway is a 16 mile multi-user route through the South East Dorset countryside, most of which follows the route of a disused railway. It has strategic importance and links Poole to accessible natural greenspace. Cyclists and horse riders can only use parts of the route and bridleway; the section that runs through Wimborne is yet to be opened up for these users.
- The Avon Valley Path is a 34 mile long-distance walking route from Salisbury to Christchurch Priory.
- Footpaths criss-cross parts of the Dorset Heaths SPA, such as Canford Heath.
- Wareham Forest Way is a 13 mile way-marked walk from Wareham to Sturminster Marshall.

Bridleways

7.6. There are several bridleways within the study including a small network that cross the heaths, such as Canford Heath to the north of the study area and Newton heath near Poole. Wareham Forest is also crossed by bridleway networks.

Open Space Provision

7.7. **Figure 7.1** illustrates open space within the study area. Open space is further described within the following open space strategies:

- Open Space, Sport and Recreation Study for Christchurch Borough and East Dorset District (May 2007);
- Green Space Strategy for Bournemouth 2007-2011 (2006);
- Open Spaces Strategy for Poole (2004)
- Poole Growth Point, Greenspace Audit (2009)
- Purbeck Sport and Recreation Audit and Assessment (2006).

Current provision of open spaces is summarised in the table below:

Table 7.1: Open Space Provision in South East Dorset

Local Authority	Provision
East Dorset *	• 7670.36ha (91.54ha per 1000 population) • 65.01 ha Parks & Gardens (0.78 per 1000 population) • 6,158.48 ha Natural and semi-natural open space (73.50 per1000 population) • 79.98 ha Amenity greenspace (0.95 per 1000 population) • 11.53 ha Allotments & community gardens (0.15 per1000 population) • 22.74 ha Churchyards and cemeteries (0.27 per1000 population) • 23.85 ha Active sport space (0.28 per1000 population) • 3.78 ha Childrens play space (0.05 per1000 population) • 0.95ha Teenage space (0.01 per1000 population) • 64.32 ha Educational outdoor sports facilities (0.77 per1000 population) • 1,209.32 ha Other open space (14.43 per1000 population) • 30.4 Moors Valley Country Park (0.36 per1000 population
Christchurch	• 836.2 ha (18.55ha per1000 population) • 8.30 ha of allotments and Community Gardens (0.18 per 1000 population) • 26.07 ha of Active sports space (0.58 per 1000 population) • 1.43 ha of Children's Play Space (0.03 per 1000 population) • 0.48 ha of Teenage Space (0.01 per 1000 population) • 56.84 ha of Recreation Grounds and Public Gardens (1.26 per 1000 population) • 12.75 ha of Amenity / Informal Green Space (0.28 per 1000 population) • 576 ha of Natural and Semi Natural Green Space (12.8 per 1000 population) • 9.74 ha of Cemeteries and Churchyards (0.56 per 1000 population) • 25.19 ha of Education Outdoor Sports Facilities (0.56 per 1000 population) • 119.40 ha of Other Open Space (2.65 per 1000 population)
Bournemouth	• 842ha[68] • 245 ha Parks and Gardens(1.5 per 1000 population) • 380 ha Natural/semi-natural greenspace (2.33 per 1000 population) • 190 ha Amenity greenspace (including golf courses) (1.16 per 1000 population) • 14 ha Allotments(0.08 per 1000 population) • 37 ha Cemeteries(0.22 per 1000 population)

[68] Bournemouth Borough Council (2007): Bournemouth Green Space Strategy 2007-2011

Local Authority	Provision
Poole	• 1067ha (7.7ha per 1000 population) • 142.60 ha of parks and gardens (1.03ha per 1000 population) • 733.30ha of natural and semi-natural greenspace including heath, woodland, corridor and lakes (5.29ha per 1000 population) • 124.50ha of amenity greenspace including sports and play facilities (0.90ha per 1000 population) • 7.60ha of allotments (0.05ha per 1000 population) • 27.70ha of cemeteries, crematoria and closed churchyards (0.20ha per 1000 population) • 31.60ha of beaches (0.23ha per 1000 population)
Purbeck*	• 29.34 ha of parks and gardens (0.66 per 1000 population) • 3956.4ha (89.08ha per 1000 population) of natural and semi-natural open space, excludes large sites in rural areas not under ownership of district or parish/town council. • 36.89ha (0.83ha per 1000 population) of amenity greenspace • 7.911ha of allotments (0.18ha per 1000 population) • 11.913ha of churchyards and cemeteries (0.27ha per1000 population)

** Note that not all of these local authority areas lie within the study area*

Open Space standards

7.9. The open space strategies (with the exception of Bournemouth Green Space Strategy) set out recommendation for open space standards, summarised in **Section 11 (Analysis and Consultation)**.

CURRENT ISSUES

7.10. A key issue raised by stakeholders was the need to improve access to existing assets. The sub-region has high-quality recreational and open space assets, but access is not extensive enough or of sufficient quality. There are a number of issues facing open spaces and recreational facilities in the sub-region, and these include:

- Large amounts of growth will increase the need and demand for green infrastructure and its associated benefits/functions.
- Sensitivity of the Dorset heathlands to recreation pressure is a major issue, and good access on heaths, such as Canford Heath, poses a threat to wildlife.
- Access for disabled people is limited.
- There is a need for facilities on/within trails and parks – specifically, toilets refreshments and bicycle parking.
- The accessibility of open spaces is often more of an issue than quantity and quality.
- There is a need for more cycle paths linking areas of open space.

- Physical barriers limit access, and have severed several existing rights of way. These barriers include major roads, rail lines, the River Stour, and Poole Harbour and other estuaries and inlets.
- Care must be taken to balance the needs of tourists, which are vital to the sub-regional economy, and those of residents.
- Some areas within Bournemouth lack significant accessible green space such as Malmesbury Park, Springbourne, Stourfield, Moordown and Northbourne but there are limited options for creating it.
- Some areas of Poole lack significant accessible greenspace such as Branksome West, Newtown, Oakdale and Penn Hill.

Poole Park – A valuable green space asset in the centre of the Poole.

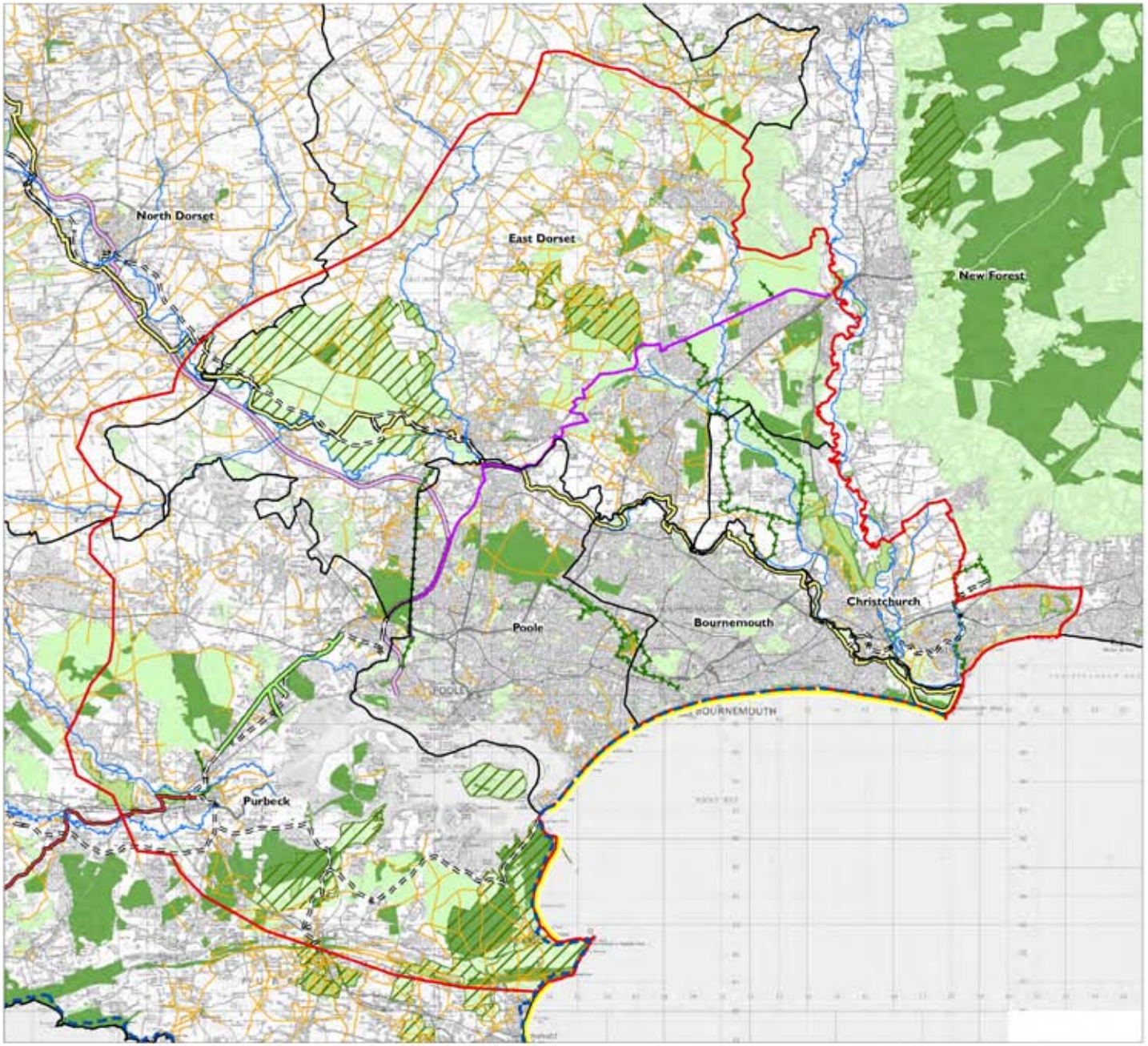
OPPORTUNITIES

7.11. Opportunities for recreation and open space include improving the management of and access to existing sites.

- Build on existing programme of guided walks, tours and events to encourage access to green spaces, to provide residents with knowledge and improve their perception of their local sites, and to engage a wider section of the community. Good examples already exist in the sub-region, such as Bournemouth Council's 'Monday Morning Meanders', guided walks at various countryside sites, often nature reserves.
- Improve facilities and the 'gateway' or entrance to recreational sites, to encourage local residents to use them.
- Educate local people on the potential range of benefits which can be provided by their local green space, and consult them on what they would like their local open space to provide.

- Promote cycling for recreation and for transport in South East Dorset's schools and colleges.
- 'Promote angling for recreation, particularly in urban areas, with increased access for the able and disabled alongside the riverbanks and lakes'.
- Consider potential to make the area's extensive coverage of golf courses more multi-functional.
- Improve access for wheelchair users and those with limited mobility.
- Open spaces within the study area should be developed or enhanced to ease pressure on the sensitive Dorset heathlands sites.
- Seek opportunities to enhance the existing levels of access to woodlands, including encouraging greater access at Wareham Forest and the Sika Trail, to build upon the good level of current accessibility.
- Improve the Castleman Trail to enable cyclists and horse riders to use the whole length of the route, rather than just sections, and investigate extending the Trailway to connect with Hamworthy Station, developing links from the Trailway to Country Parks at Moors Valley, Avon Heath and Upton Country Park.
- Consider opportunity to link the Castleman Trailway to the North Dorset Trailway at Broadstone. This would require the restoration of the old railway line as a trailway across Broadstone Golf Course. The completion and linking of these two trailways could provide enhanced value in terms of recreational, health, and tourism functions.
- Enhance existing public rights of way and upgrade where possible to bridleways and cycle routes in order to provide access to nature in areas deficienct in areas of accessible natural greenspace. This could include working with Sustrans to open up the whole of NCN 2, including the Stour Valley section.
- Enhance recreational facilities and visitor 'offer' at the Stour Valley, and promote as a strategic green space/country park.
- Potential to enhance the seafront as an open space asset, and to promote use of the coast by local residents for informal recreation during low season.
- Develop a strategic approach aimed at encouraging more recreational use of the countryside. This approach could build on the 'TravelWise' initiative already in place at Dorset County Council, and other initiatives in place in local authorities, and should link with the Local Transport Plan. Elements could include:
    - Improved and safer car parking
    - Encouraging greater use by cycling
    - Encouraging a 'get there without a car' approach
    - Encourage more travel to work without cars
    - Better programmes of taster sessions to get people started.
- Develop a joined up cycle network and a bike borrow scheme (Mass Automated Cycle Hire Scheme), where users can collect a bike in one part of the urban conurbation and drop it off in another (as discussed under *Health and Well-Being*).

- Consider the potential of previously developed land (PDL) in the study area to be restored as accessible green space. Potential opportunities include:
    - Derelict land and buildings at the former Royal Naval Cordite Factory in Purbeck in close proximity to the Wareham to Upton cycleway
    - Vacant PDL on land South of Canford Heath in Poole
    - Derelict land and buildings at the Former Merck Factory site in Poole



South East Dorset Green Infrastructure Framework

Figure 7.1: Open space and recreation

Key

- Study area
- Local authority boundaries
- Open Countryside
- Registered Common Land
- National Trust land
- Public Rights of Way (data not available for Bournemouth)
- Beachfront

Recreational trails

- Proposed Wareham to Upton cycleway
- Proposed North Dorset/Somerset and Dorset Trailway
- Stour Valley Way
- Castleman Trailway (southern end proposed)
- Coast Path
- Greenways
- National Cycle Network
- Purbeck Way West

Open space (including sites which are accessible, not accessible and those which have limited public access)

N W E S 0 1 2 4 Km

Source: Ordnance Survey, Dorset County Council, Local Authorities, National Trust, Wildlife Trust, Natural England, Forestry Commission

Date: 17/08/2009
Revision: C

File: S:\4600\4641 South East Dorset Green Infrastructure Study\GIS\Themes\ArcGIS\4641-01_017_Open_space_RevC.mxd

8. LANDSCAPE CHARACTER

OVERVIEW

8.1. This section reviews the landscape character of the study area to aid analysis of relevant key issues and opportunities in relation to green infrastructure provision throughout the area.

KEY FEATURES

8.2. The following information was used to build up a picture of landscape character in the study area:

- National Character Areas;
- Character areas from the Dorset Landscape Character Assessment;
- National landscape designations – Cranborne Chase & West Wiltshire Downs Area of Outstanding Natural Beauty (AONB), Dorset AONB and the 'Jurassic Coast'.

National level landscape character

8.3. The majority of the study area falls within the *Dorset Heaths* National Character Area 135. A small part of Area 134 *Dorset Downs and Cranborne Chase*, Area 131 *New Forest* and Area 136 *South Purbeck*, lie along the northern, eastern and southern boundary of the study area, respectively.

8.4. The *Dorset Heaths* are defined by areas of protected heathland habitats, incised by broad river valleys with fertile floodplains which open out into the reed beds, marshes and mudflats at the coast. Key characteristics of the *Dorset Heaths* include:

- Open, exposed and broad scale with sharp contrast to surrounding character areas.
- Undulating lowland heath with tracts of heather, mires, marshes, stunted pines and gorse scrub.
- Blocks of conifers forming locally prominent landmarks.
- Mosaics of heathland, farmland, woodland and scrub.
- Sparsely populated with scattered villages.
- Flat-bottomed open valleys with floodplain pastures and willows.

8.5. Southern parts of the *Dorset Downs and Cranborne Chase* landscape is defined by broad, rolling dip slope cut by intricate river valleys, which fall to a landscape of low-lying valley bottoms towards the *Dorset Heaths*.

8.6. The western part of the *New Forest* landscape is characterised by the flat-bottomed valley of the River Avon, which is clearly contained by the New Forest plateau to the east and by the Dorset Heaths to the west.

8.7. Northern parts of the *South Purbeck* landscape are characterised by a narrow but prominent chalk ridge, rising like a sheer wall to the south of the Dorset Heaths, overlooking the sheltered Corfe Valley.

County-level landscape character

8.8. The emerging Dorset County Council and the Dorset AONB landscape character assessment provides the County-level landscape context. As part of this initiative East Dorset and Purbeck District Councils have produced landscape assessments to help inform the Planning Authority when considering proposals for development.

8.9. These assessments identify a number of landscape character types (**Figure 8.1**) and locally discrete character areas. The key landscape types that appear within the study area include:

Landscape type	Location / distribution	Key characteristics
1. Harbour / Wetland / Lagoon	Lower reaches of the Piddle, Frome and Stour river valleys forming Poole and Christchurch harbour.	A large scale, open, tranquil and generally unspoilt landscape of tidal mudflats, marshland, reed bed, open water and shingle bank which contains diverse habitats of significant conservation value and provides unique setting for the towns of Poole and Christchurch. Contains important vistas and views of historic and cultural importance.
2. River terrace	Fringes of the Stour, Moors and Avon valleys.	A wide and flat landform with a rural mixed farmland character, forming a buffer between the heathland landscapes and the valley pastures. Woodland blocks and shelter belts are key features.
3. Valley Pasture	Stour, Frome, Piddle, Moors, Sherford, Avon and Yeo river systems.	Flat and open pastoral landscape with wide meandering river channels which often flood. Wet ditches and small channels, wet woodlands, small pastures and old water meadows are typical. Merges with extensive areas of pasture, reed bed and marsh at Poole and Christchurch.
4. Heath/Forest mosaic	Forms part of the wider 'Poole Basin' located on elevated plateaus or ridges cut by the rivers Avon, Moors, Sherford, Piddle and Frome.	Characterised by a patchwork landscape of heath, forest and scrub on sandy soil with extensive blocks of conifer plantation and areas of regenerating birch woodland to create a distinctive mosaic. Urban influences of housing, military and industrial development impact significantly on the area, which is well used and popular for informal recreation.
5. Heath farmland mosaic	Transitional area between the chalk landscapes, river valleys and other heathland landscape types.	A flat mixed farmed area interspersed with a mosaic of heathland and scrub which all combine to create a patchwork landscape. Heavily influenced by urban / urban fringe land uses such as industrial, commercial & leisure uses as well as transport corridors, quarrying, power lines and 'horsiculture'.
6. Lowland Heathland	Low-lying landscape found in the Poole Basin, enclosed chalk.	A complex and diverse mosaic of open expansive dry and wet heath, acidic grassland, regenerating birch/pine wood and wooded scrubby heath which all combine to create a rich blend of textures and colours. Mostly protected by landscape designations, yet heavily influenced and under pressure by urban development and recreation.

Landscape type	Location / distribution	Key characteristics
7. Rolling Wooded Pasture	Margins of the Poole Basin and along the northern slopes of the Purbeck ridge.	Small scale well wooded landscape of pastures, scattered trees and dense well treed hedgerows, forming a varied, intimate and rural landscape which contrasts with the more open broader scale of the chalk landscapes nearby. Remnant heathy patches in the Poole Basin areas and small patches of unimproved grassland in the Purbeck hills area.
8. Chalk valley and downland	Broad belt between the heathland basin to the southeast and the vale landscapes to the northwest.	Visually dominant undulating area of chalk with open views from expansive elevated areas. Much of the area is a pattern of large, intensively farmed arable fields subdivided by straight, low and thin hedgerows with smaller pattern of fields and hedges in the valleys. Chalk streams (with traces of old valley floor water meadows), semi natural chalk grasslands and ancient woodland are all key habitats.
9. Open Chalk Downland	Merge seamlessly into the adjacent Chalk Valley and Downland areas in north part of study area.	Simple, large-scale expansive landscapes of broad rolling open hills with large agricultural estates mainly under arable production. A patchwork of large arable fields bounded by straight and low hedges or fencing with isolated small blocks of geometrically shaped woodland. Numerous ancient settlement sites, long barrows and burial mounds.
10. Chalk Escarpment / Ridge	The Isle of Purbeck.	Steep, distinctive and bold ridge and scarp slope on the edges of the chalk landscapes which forms a dramatic backdrop to the surrounding patchwork lowland landscape.
20. Clay Valley	The Isle of Purbeck.	Patchwork of small scale pasture, irregular dense hedges and copses with larger arable fields, grassland and scrub on the steeper slopes. Settled rural character with an intimate secluded feel in places and nearer the coast a more windswept, remote and exposed character.

Townscape character

8.10. Towns within the conurbation have also produced, or are in the process of producing, townscape appraisals. These studies provide urban landscape context with typologies of character areas, and highlight areas of each study area for conservation or enhancement of existing features. These recommendations should help to inform the design of green infrastructure features at the local level, which should complement the valued elements of each town's character.

Designated sites

Cranborne Chase & West Wiltshire Downs AONB

8.11. Located in the northern part of the study area, Cranborne Chase & West Wiltshire Downs AONB (**Figure 1.1**) is an area of great diversity and contrast. It was designated in 1981 for its distinctive landscape character of smooth rounded downs, steeply cut combes and dry valleys, it ecological importance, its sense of history and remoteness, dark night skies and tranquillity. The AONB abuts the Dorset AONB and includes part of the South Wessex Downs Environmentally Sensitive Area. It is also a landscape of international importance, recognised as a Category V Protected Landscape by the International Union for the Conservation of Nature (IUCN).

Dorset AONB

8.12. Dorset AONB (**Figure 1.1**) was designated in 1959 because of its distinctive landscape, its diverse wildlife and its strong cultural associations. The AONB is protected by law[69] and managed to maintain its special character now and in the future. As approximately 90% of the AONB is in private ownership, the implementation of the AONB Management Plan 2004-2009 relies on many organisations and individuals, including farmers and land managers, highway authorities and developers.

The Dorset and East Devon Coast

8.13. Part of the Dorset and East Devon Coast (popularly known as the 'Jurassic Coast') falls within the southern part of the study area, lying between the top of the cliffs and the low water mark south of Studland Bay (see **Figure 4.1**). Forming part of the Dorset AONB and East Devon AONB, the coastline was designated as a World Heritage Site[70] in 2001 for its unique geodiversity, which forms a distinctive coastal landscape and supports rare and important plants and animals.

South East Dorset has an attractive and varied landscape (Photo: S.Sieger)

CURRENT ISSUES

8.14. The following current issues have been identified in the study area:

[69] The CRoW Act 2000 highlights the importance of AONBs in section 85, placing a duty on all public bodies to 'have regard' to the 'purpose of conserving and enhancing natural beauty of the area of outstanding natural beauty.'

[70] Under the United Nations Organisation for Education, Science, Culture and Community (UNESCO) Convention concerning the Protection of World Cultural and Natural Heritage (1972)

- Conversion of productive rural land and natural areas (including heathland) to housing and other urban development, resulting in loss of characteristic landscape features and semi-natural vegetation types that define the character of the study area and setting to the townscape.
- Extensive conifer plantations have been created on areas which were historically heathland. Restoration of heathland is already underway at some sites, and the continued restoration of appropriate areas to heathland habitat would enhance the landscape character and sense of place.
- Pressure for urban infill and for parking has reduced, and is likely to continue to reduce, the amount and quality of private open greenspace (e.g. the infill of gardens, the loss of mature trees). This can have a negative impact on the character of residential areas, as well as on biodiversity and adaptation to climate change, and increase the demand for public open space and access to the surrounding countryside.
- Increasing recreational pressure and traffic (particularly in areas close to the Poole, Bournemouth, and Christchurch conurbation), and balancing the needs of new development and roads, aggregate and ball-clay extraction, and military use require sensitive management to ensure the survival of heathland habitats (a key feature of the of the 'Poole Basin' landscape).
- Heathland near urban fringes can be damaged by trespass, vandalism, fires, fly-tipping, erosion, temporary occupation by travellers or intensification of agriculture.
- Construction of coastal defences along the Jurassic Coast may interfere with natural processes and obscure the geological interests. With climate change, rising sea levels and a predicted increase in stormy weather and winter rainfall, the conflict between coast defence and the protection of the World Heritage Site will only increase. Balancing the protection of property and infrastructure with the natural interests and beauty of the coast will remain a challenging issue for the future.
- Potential changes in the Common Agricultural Policy may result in changes to the agricultural landscape, with some areas becoming more extensively farmed.
- Predicted shift towards bio-fuels may change landscape character.
- Loss of chalk downland and associated ecological diversity has been significant in the AONB, due to increased arable conversion and scrub encroachment.
- Loss and lack of management of historic landscape features, such as hedgerows, pollards and parkland trees.
- Characteristic tree species such as beech and Scots pine may be affected by reduced water availability related to climate change.
- Ancient woodland is fragmented across parts of the study area, and creating joined up networks would contribute to improved landscape character.
- Increasing demand on water resources (due to expanding urban areas) has lowered some stream levels, affecting wildlife and landscape interest e.g. through loss of water meadows.
- Small green spaces are a vital part of the townscape character in the Bournemouth/Poole/ Christchurch urban conurbation.

OPPORTUNITIES

8.15. The following opportunities have been identified for the study area:

- The Stour Valley and other smaller watercourses (such as the Sherford and Frome Rivers) extending into the urban conurbation provide notable opportunities for creating GI corridors. These waterways provide important opportunities to improve gateways to and the landscape settings of the conurbation, as well as improved views to the countryside (in addition to habitat, recreation, and water attenuation functions).

- There are notable opportunities to conserve and enhance floodplain grassland, water meadows and grazing marsh along the Avon River Valley. Grant schemes such as the Environmental Stewardship Scheme (ESS) are available to farms when they enter into management agreements for the restoration and improvement of landscape features.

- Common Agricultural Policy reforms (covering the period 2009-2013) require farmers to spend 10% of their annual EU subsidies on countryside improvement e.g. management of hedgerows/hedgerow trees, pollards and parkland trees; planting of new species rich hedgerows.

- Potential to enhance landscape character and setting to urban areas and generating a strong sense of place through implementing SuDS as an integral part of new development as well as existing urban areas and greenspaces.

- It will be important to maintain tree cover in and around the Poole-Bournemouth conurbation, including deciduous woods and copses, blocks of conifers, pines and plantations, hedgerow trees and veteran trees. Seek opportunities for new planting of native species that could enhance links to the Dorset Heaths landscape (suitable native tree species include Alder, Birch, Oak, Rowan, Field Maple and White Willow) through grants schemes such as the Environment Stewardship Scheme and the English Woodland Grant Scheme.

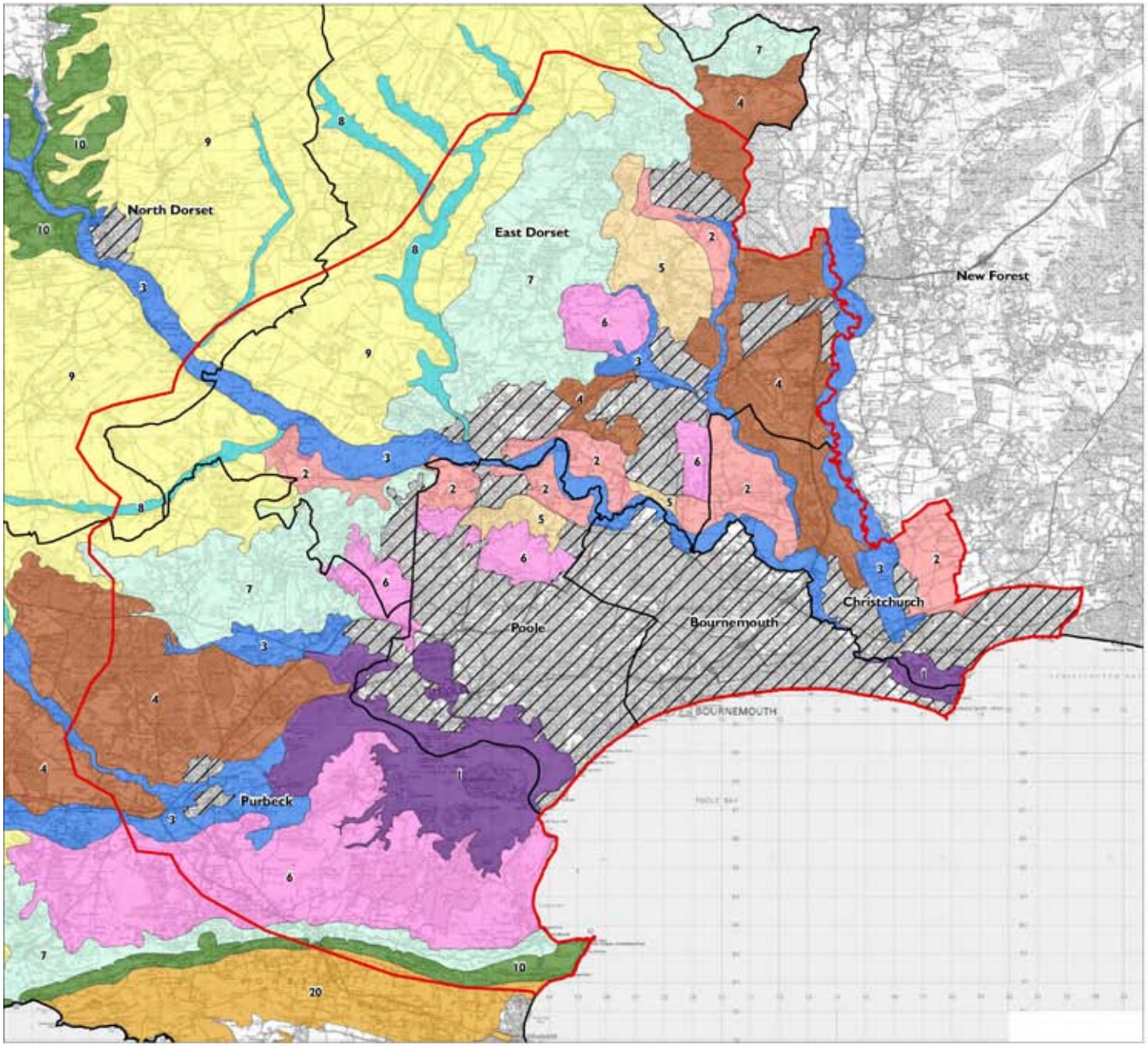
- It will be important to ensure co-ordinated management of scrub and trees to prevent encroachment of open heathland, while maintaining a balance of tree and scrub cover.

- Potential to enhance the landscape character of the some parts of the coast, through enhanced management of the wooded chines.

- Old ball clay and sand and gravel workings offer opportunities for restoration, particularly where this allows links to existing heathland fragments i.e. emphasis on the provision of open space and interpretation / promotion of heathland as a unique local habitat.

- It will be important to conserve and enhance the landscape features within the Harbour/ Wetland/Lagoon landscape type where it provides unique setting for the towns of Poole and Christchurch; such as Sandbanks Peninsular, Poole Harbour islands, Chesil Beach and Fleet shoreline, Poole Harbour Entrance, Mudeford Quay, Christchurch Priory environs and Hengistbury Head.

- Opportunities for conservation schemes for Historic Parks and Gardens within the study area to restore and enhance the historic landscape character (including their setting), e.g. through obtaining Heritage Lottery Fund grants.



South East Dorset Green Infrastructure Framework

Figure 8.1: County-level Landscape Character areas

Key

- Study area
- Local authority boundaries
- 1. Harbour/Wetland/Lagoon
- 2. River terrace
- 3.Valley pasture
- 4. Heath/Forest mosaic
- 5. Heath farmland mosaic
- 6. Lowland Heathland
- 7. Rolling wooded pasture
- 8. Chalk valley and downland
- 9. Open chalk downland
- 10. Chalk escarpment/ridge
- 20. Clay valley
- Combined urban areas

N W E S 0 1 2 4 Km

Source: Ordnance Survey & Dorset County Council

Date: 25/06/2009
Revision: B

File: S:\4600\4641 South East Dorset Green Infrastructure Study\GIS\Themes\ArcGIS\4641-01_014_LUC_RevB.mxd

9. ECOLOGY AND BIODIVERSITY

OVERVIEW

9.1. The majority of the Study Area falls within *Natural Area 81 - Dorset Heaths*[71] as identified by Natural England. The habitat type for this Natural Area is lowland heathland, much of which is recognised as being of international importance to biodiversity conservation. Historically, lowland heathland would have dominated the area, but now areas of heathland are fragmented by agriculture, conifer plantation and urban development.

9.2. A focal feature of the Study Area is the wide river valleys of the Frome, Piddle, Avon, Allen and Stour. These support important plant and dragonfly communities and the floodplains are important for wintering wildfowl and waders. In terms of extent, other significant habitats within the Study area include broad-leaved ancient woodland and farmland (arable and pasture).

9.3. Key concentrations of biodiversity within this Natural Area occur in the coastal zone which comprises the natural harbours of Poole and Christchurch; soft, sandy cliffs between these harbours; an extensive dune system at Studland; and a range of estuarine and inter-tidal habitats including reed beds, salt marshes and mudflats which are extremely valuable for waders and waterfowl.

9.4. To the north, approximately one fifth of the Study Area overlaps with *Natural Area 80: South Wessex Downs*[72]. In the far south of the Study Area a very small area is included within *Natural Area: 82 Isles of Portland and Purbeck*[73]. Both of these Natural Areas contain nationally significant areas of chalk grassland habitat which is noted for its diverse flora and invertebrate fauna.

KEY FEATURES

Statutory sites: Natura 2000 network, SSSIs

9.5. **Figure 9.1** indicates the distribution of statutory nature conservation sites: European designated Natura 2000 sites, and nationally designated National Nature Reserves (NNR) and Sites of Special Scientific Interest (SSSI)).

9.6. There are nine internationally designated sites within the Study Area covering a relatively large area. The two Dorset Heaths SACs together with the New Forest (just east of the Study Area), contain a large proportion of the total UK resource of lowland northern Atlantic wet heaths (EC Habitats Directive Annex I habitat).

9.7. Among the nine designations there is a significant degree of spatial overlap. For example, most SPA sites are also designated as Ramsar sites. In addition, there is a degree of overlap between SAC sites and SPA/Ramsar sites. For example, the River Avon SAC is simultaneously a SPA and Ramsar site, although the later designation covers a much broader area including portions of the river floodplain whilst the former includes mainly the river channel and immediate riparian areas.

---

[71] Natural England (1997). *Dorset Heaths Natural Area Profile*. [on-line] http://www.naturalareas.naturalengland.org.uk/Science/natural/profiles/naProfile81.pdf (accessed, May 2009).

[72] Natural England (1997). *South Wessex Downs Natural Area Profile*. [on-line] http://www.naturalareas.naturalengland.org.uk/Science/natural/profiles/naProfile80.pdf (accessed, May 2009).

[73] Natural England (1997). Isles of Purbeck and Portland *Natural Area Profile*. [on-line] http://www.naturalareas.naturalengland.org.uk/Science/natural/profiles/naProfile82.pdf (accessed, May 2009).

9.8. **Table 9.1** identifies the main habitat types incorporated within internationally designated sites within the Study Area and highlights key threats to the conservation status of these sites.

9.9. There are 51 SSSIs within the Study Area and six NNRs. A large majority of these sites are incorporated within the Natura 2000 network. The majority of SSSIs are heathland sites, however, there are also a number of grassland sites (often lowland and calcareous meadows) and geological SSSIs. Only one SSSI site is predominantly a woodland. In terms of SSSI condition, at least 21 (41%) sites have less than 50% of their component land area in 'Favourable' or 'Unfavourable Recovering' conservation condition

Table 9.1: Designated features and key threats to Natura 2000 sites.

Lowland heathland sites		
Dorset Heathlands SPA Ramsar; Dorset Heaths SAC/ Dorset Heaths (Purbeck & Wareham) & Studland Dunes SAC	Northern Atlantic wet heaths European dry heaths Southern damselfly *Coenagrion mercurial* Nightjar *Caprimulgus europaeus* Hen harrier *Circus cyaneus* Merlin *Falco columbarius* Woodlark *Lullula arborea* Dartford warbler *Sylvia undata*	Adverse pressures include a high incidence of wildfires; recreation uses leading to erosion and disturbance of sensitive fauna; successional changes to scrub and woodland; invasion by conifer and introduced scrub species, especially Rhododendron.
River and wetland sites		
Avon Valley SPA Ramsar/ River Avon SAC	Freshwater fish including e.g. Bullhead *Cottus gobio* and aquatic vegetation characterised by an abundance of water-crowfoots *Ranunculus spp.* Waterfowl (e.g. *Gadwall Anas strepera* and Bewick's swan *Cygnus columbianus bewickii*). Migratory species Salmon *Salmo Salar*	The main factors influencing the river system are: land drainage (including problems with retaining floodwater leading to drying of breeding waders habitat); abstraction of water for public supply and agricultural uses including nutrient discharges; disposal of sewage effluents (which may also lead to eutrophication and have a range of toxic effects) and management of the water courses for fishery; agricultural and other uses.
Coastal sites		
Poole Harbour SPA Ramsar; Isle of Portland to Studland Cliffs SAC/ Dorset Heaths (Purbeck & Wareham) & Studland Dunes SAC	Breeding waders and waterfowl (e.g Avocet *Recurvirostra avosetta*, Black-tailed godwit *Limosa limosa islandica*, Shelduck *Tadorna tadorna*). Shifting and fixed sand dunes with a very clear successional sequence of dune communities including Oligotrophic standing waters (i.e. the lake known as Little Sea at Studland).	The main factors include development of a commercial port, marinas and moorings; recreation pressures (e.g. dune erosion, disturbance of nesting bird species); dredging; invasive exotic marine species; bait digging; drainage of grazing marshes.

Non-statutory wildlife sites

9.10. **Figure 9.2** indicates the distribution of non-statutory nature conservation sites (Sites of Nature Conservation Importance, Ancient Woodland Inventory Sites and nature reserves owned by conservation NGOs) and Local Nature Reserves in the Study Area.

9.11. There is a certain amount of overlap with statutory designated sites, for example the RSPB reserve at Arne and the Dorset Wildlife Trust Reserve are also SSSI/SPA sites. In general, however, the network of SNCIs covers areas which are not covered by other designations. This is particularly the case along the northern margin of the Study Area, including the area roughly enclosed by a band of farmland running north east from Wareham Forest to Verwood. This area contains the majority of the Ancient Woodland Inventory sites in the Study Area. In addition, several relatively large SNCIs occur in this area such as Highwood (a semi-natural and plantation woodland) near Lytchett Matravers and also the Boys Wood/ Kings Wood complex of sites, including a large ancient woodland, which is south of Wimborne St. Giles.

BAP Habitats

9.12. **Figure 9.3** indicates the distribution of BAP Priority Habitats (under the broad groups: heathland, bog and grassland; freshwater and woodland; and coastal habitats) which have been recorded in the Study Area by Natural England. The BAP habitat inventories should be treated as indicative as there are some inaccuracies with classification and spatial accuracy, for example, in some instances different habitat types are shown as overlapping.

Conservation of species

9.13. **Table 9.2** illustrates a selection of species associated with some of the broad habitat types identified in the Dorset Biodiversity Strategy[74]. In addition, given their prominence in the Study Area, urban habitats are included. Key threats and trends for these species are outlined. It is beyond the scope to identify conservation issues for all species found within the Study Area. However, it is considered that many of the issues outlined in **Table 9.2** (e.g. cessation of management, threats from intensive agriculture) are common to many species and are broadly representative of threats faced by species in each of the broad habitat types.

[74] Dorset Biodiversity Partnership (2003). *Dorset Biodiversity Strategy*. [on-line] http://www.dorsetwildlife.co.uk/the_dorset_biodiversity_strategy.html (accessed June, 2009).

Table 9.2: Illustrative BAP species associated with habitats in the Study Area

Broad habitat type	Illustrative species	Key threats and trends
Forestry and woodland	Woodland butterflies (e.g. Purple emperor *Apatura iris*)	The abundance of woodland butterflies has dropped 43% over the last 16 years[75]. One of the biggest causes of decline amongst woodland butterflies has been the cessation of active broad-leaved woodland management, especially the decline of traditional woodland management systems such as coppicing.
Lowland heathland	Nightjar *Caprimulgus europaeus*	Nightjar feed over deciduous woodland, particularly favouring sheltered edges of deciduous trees/ scrub and mature oaks bordering heathland. Ideally tree cover should be less than 50% overall. Key foraging areas such as mature oaks and sheltered edges of deciduous scrub to be retained. Nightjar favour a specific habitat structure for nesting comprising vegetation mostly of 20-60cm, open ground with unrestricted views over >50m and 10-20% bare ground overall with bare patches c. 2m across. The breeding success of nightjar is sensitive to habitat degradation, such as from trampling[76]. Key threats include scrub and conifer encroachment on the heathlands, removal of woodlands/hedgerows and improvement of pastures reducing insect food supplied. A key threat to nightjar's heathland nesting sites is disturbance of birds at the nest by recreational activities (e.g. dog walking, rambling)[77].
Agriculture	Lapwing *Vanellus vanellus* Greater horseshoe bat *Rhinolophus ferrumequinum*	Lapwing numbers have declined steadily since the 1940's. Abandonment of agricultural rotations, the switch from spring to autumn sown crops, increased drainage, and increased use of agrochemicals are all attributed to this. Such changes have resulted in much of the arable land becoming unsuitable for nesting by April because the crop grows too high. Tillage, drainage and pesticides have also caused a reduction in food availability[78]. The greater horseshoe is vulnerable to the loss of insect food supplies due to insecticide use, changing farming practices and the loss of broad-leaved tree-cover, and to the loss or disturbance of underground roost sites[79].
Freshwater	Water vole *Arvicola terrestris*	Key threats to water vole populations include destruction of riparian habitats including removal of well vegetated areas where water vole forages and shelters. In addition, direct predation from feral American mink *Neovison vison* is a key factor linked to water vole decline[80].

[75] Forestry Commission (no date). *Lepidoptera on Forestry Commission Land in England; Conservation Strategy 2007-2010* (on-line): http://www.forestry.gov.uk/england-butterflies (accessed March, 2009).

[76] English Nature (now Natural England) Dorset Team (2001). *Dorset Heaths SAC/SPA: Conservation Objectives for the European Interests features on Hurn Common.* Unpublished.

[77] Langston, R., Drewitt, A. & Liley, D. (2007). Bird conservation and access: coexistence or compromise? *British Wildlife*. 19: 1-9.

[78] RSPB (2009). *Population trends*. (on-line) http://www.rspb.org.uk/wildlife/birdguide/name/l/lapwing/decline_and_conservation.asp (accessed March, 2009).

[79] JNCC (no date). *1304 Greater horseshoe bat Rhinolophus ferrumequinum: Description and ecological characteristics*. (on-line).

[80] Strachan, R. and Moorhouse, T. (2006). Water Vole Conservation Handbook. Wild Cru.

Broad habitat type	Illustrative species	Key threats and trends
Urban areas	Song thrush *Turdus philomelos*	BTO data show a national decline of 57% during 1973-98, though the latest regional data show an increase for the West Midlands of almost 60% between 1994 and 2000*. Reasons for the decline are still only partly understood and may include: – lack of food supply (especially earthworms) and available nest sites as result of changes in farming practice, particularly land drainage and the switch to silage production on grassland and possibly the use of molluscides on crops. – climate change and unfavourable weather conditions, particularly dry soil conditions during the breeding season, which restrict the availability of earthworms and snails. – fewer damp woods with developed shrub layers, hedgerows and wet ditches in which to feed and nest; – predation by domestic pets.

[81] Warwickshire County Council (2003. Species Action Plan: Song Thrush T*urdus philomelos*. (on-line): http://www.warwaickshire.gov.uk/Web/corporate/pages.nsf/Links/664C36352CE8DE8180256E910031C62C/$file/Songthrush.pdf (accessed June, 2009).

CURRENT ISSUES

9.14. Key issues in respect of biodiversity conservation in the Study Area are set out below.

9.15. **Securing appropriate management of nature conservation sites**: Statutory nature conservation sites make-up a relatively large part of the Study Area and there is also a large network of Sites of Nature Conservation Importance (SNCI) which together with SSSIs would form the 'core areas' of a future ecological network. Many such sites are currently in poor condition[82] and require active management to sustain their biodiversity value (for example, see key vulnerabilities set out in **Table 9.1**). Key factors involved in deterioration of site quality are lack of appropriate grazing (for example, on grasslands and heathlands) and cessation of cutting/pollarding in woodland and wood pasture[83].

9.16. **Recreational visitor pressure**: Research has documented the negative effects of excessive recreational pressure on sensitive nature conservation sites in the Study Area[84]. Human activities such as dog walking, horse riding, mountain biking and off-track activities such as orienteering may result in erosion and physical damage to vegetation and lead to disturbance and reduced breeding success of sensitive fauna. Heathland SPA sites are considered to be particularly susceptible to degradation through excessive visitor numbers partly resulting from sensitive ground nesting bird assemblages[85]. Heathland sites are frequently favoured areas for recreational and use of these areas should be expected to increase with future housing growth in the Study Area.

9.17. **Habitat fragmentation**: Much semi-natural habitat in the Study Area is highly fragmented and isolated compared to its historic distribution. However, the ability of species to move across the landscape (its 'permeability') is further impaired if land uses in-between habitats are inhospitable. For example, areas with dense urban settlement and busy road networks or areas of intensive arable land may offer limited opportunities for species to disperse, feed and shelter. This may limit the success of restoration strategies across the study area.

9.18. **Climate change:** In broad terms, climate change may be expected to bring about hotter/drier summers and milder/wetter winters. It has been suggested that the balance between the three dominant heathland communities of acid grassland, heather *Calluna vulgaris* and bracken *Pteridium aquilinum* may shift as changes in climate affect the relative competitive ability/productivity of component species within these community types[86]. The prevalence and impact of wild fires and those caused by arson may also be accentuated with increasing incidence of hot/dry summers.

9.19. **Air pollution**: Being intrinsically nutrient-poor, habitats such as lowland heathland and acid grassland are sensitive to the addition of nutrients from anthropogenic sources. An indirect effect of housing growth in the Study Area may be associated with growth in road traffic and commercial operations emitting nitrogen into the atmosphere. These effects threaten to alter the community composition of valued animal and plant communities.

---

[82] For example, research commissioned by Natural England found that of a random sample of 104 non-SSSI lowland heathland sites, no stand was considered to be in favourable condition - Hewins *et al.* (2007) cited in Natural England (2008). *State of the Natural Environment - Resource Document: Heathland habitats* [on-line] http://www.naturalengland.org.uk/Images/habitatheathlandrd_tcm6-4577.pdf (accessed June, 2009).

[83] Natural England (2008). *State of the Natural Environment*. [on-line]. http://www.naturalengland.org.uk/publications/sone/sections.aspx (accessed March, 2009).

[84] Liley, D., Clarke, R., Tyldesley, D., Underhill-Day, J., and Lowen, J. (2006). *Evidence to support appropriate assessment of development plans and projects in south-east Dorset*. Unpublished report. Footprint Ecology/ Dorset County Council.

[85] Langston, R., Drewitt, A. & Liley, D. (2007). Bird conservation and access: coexistence or compromise? *British Wildlife*. 19: 1-9.

[86] Mitchell *et al.* (2007). *England Biodiversity Strategy - towards adaptation to climate change. Final report to Defra for contract CRO327*. Defra, 177pp.

9.20. **Farming and biodiversity**: The distribution of statutory nature conservation sites and BAP Priority habitats is less dense in areas which are more intensively farmed. Areas of farmland support numerous species of conservation interest and facilitate movement of species between the highest quality habitats in the Study Area. As such, there is a need to enhance the biodiversity value of these areas. The following species, identified by Natural England form particular targets for conservation in the Study Area: farmland birds (e.g. grey partridge *Perdix perdix* and turtle dove *Streptopelia turtur*), brown hare *Lepus europaeus* and scarce arable plants (e.g. see Plantlife's Arable Plants website[87]).

9.21. **Interruption of functional ecosystem processes**: Watercourses in the Study Area are frequently disconnected from their floodplains and/or canalised, severely limiting the natural processes of flooding, erosion and sedimentation and associated wetland habitats (such as wet woodland, reedbeds, flood meadows). Cultivation frequently occurs up to the edge of many water courses in the Study Area, limiting the development of riparian vegetation and wetlands. The biodiversity value of the valleys of Stour, Avon, the Moors River, Frome, Allen and Piddle and numerous winterbournes in the Study Area may be affected in this way. In terms of grasslands, high livestock stocking rates on pasture land prohibits flowering of many grassland herbs and prevents grasslands from establishing a mature sward which is required by many invertebrates, birds, reptiles and small mammals for feeding, sheltering and nesting. The converse is true of heathland where lack of grazing on may lead to a deterioration of floral and faunal diversity as succession to scrub and woodland occur. In terms of woodland, in certain areas high deer numbers may be limiting the capacity of woodlands to regenerate from seed and attain a mature layered structure.

Water vole - South East Dorset is home to a range of habitats and species.

[87] Plantlife (no date). *Arable Plants Website*. [on-line] http://www.arableplants.org.uk/ (accessed June, 2009).

OPPORTUNITIES

9.22. In reviewing opportunities relating to biodiversity, consideration has been given to an expanded range of environmental functions and GI benefits. In particular the following themes:

- key nature conservation sites provide opportunities for recreation, natural play and access to nature;
- green corridors, for example, river corridors provide opportunities for habitat creation/ restoration, promote species movement and act as transport and recreation corridors;
- nature conservation sites offer opportunities for flood attenuation and water resource management;
- restoration and regeneration of new habitat promotes adaptation to climate change, for example, through urban cooling; and
- wildlife rich landscapes may strengthen 'sense of place' and act as a setting for high quality development.
- within the Study Area, the overarching importance of the coastal zone for delivery of numerous multi-functional benefits including biodiversity conservation should be emphasised.

9.23. The overarching GI opportunity in respect of biodiversity conservation is to develop an **ecological network** for SE Dorset. This would consist of the following zones:

- **Core areas**: the most important habitats containing source populations of the rarest and/ or most vulnerable species. For example, the Natura 2000 network, SSSIs, SNCIs and LNRs. These areas should be buffered and protected;
- **Enhancement areas**: land which may be of moderate to low ecological value but which could benefit from enhancement measures, for example, urban parks within the conurbation, and areas of intensive agriculture to the north of the Study Area;
- **Areas for restoration**: land which holds potential for large-scale habitat creation, for example, former quarries, areas of semi-improved pasture, planted ancient woodland, conifer plantations on former heathland, and canalised sections of rivers and streams;
- **Wildlife corridors**: linear habitats and habitat 'stepping stones' which would promote species dispersal across the Study Area.

Create new large areas for people and wildlife:

9.24. The provision of Suitable Alternative Natural Greenspaces (SANGS) is one strategy for reducing recreational pressure on sites with high ecological sensitivities. However, recent research has indicated that simply providing more greenspaces will not fulfil this role if sites are not carefully designed to offer a similar visitor experiences to large extensive semi-natural heathland sites which are much valued by residents in the Study Area[88]. SANGS must also be accompanied by institutional measures such as ranger staff and education outreach work to be effective. Large areas of habitat offer multiple ecological benefits in terms of reducing habitat fragmentation and restoration of functional ecosystem processes (e.g. floodplain connections).

[88] Clarke, R.T., Sharp, J and Liley, D. Access Patterns in South-east Dorset. (2008). *The Dorset Householders Survey: Consequences for Future Housing and Greenspace Provision*. Unpublished report. Footprint Ecology.

9.25. Development of the amenity value of the coastal zone in association with restoration of coastal habitats may offer notable benefits in terms of lessening visitor pressure on sensitive heathland sites within the Study Area. Another key opportunity exists in the Stour Valley, which could form a focus for development of a network of access trails, cycle routes, wildlife viewing hides, water based recreational opportunities and small scale visitor amenities (e.g. information centres, interpretation signs, trail way marking etc.). Other opportunities for large-scale habitat (re)creation are highlighted by the South West Nature Map (see below).

9.26. The 2009 Poole Green Space Audit also identified the planned extension to Upton Country Park as a key opportunity for delivery of SANGs, and this should be investigated in detail at a local level.

Green connections:

9.27. Linear corridors offer opportunities for increasing the amount of semi-natural habitat across the Study Area whilst delivering human benefits such as providing trails and cycle paths. Linear 'corridors' of habitat or habitat 'stepping stones' may also encourage wildlife movement. However, if they are to be effective in this role they must be carefully designed. For many species dispersal may not be facilitated in this way[89]. The Castleman Trailway, a disused railway line which connects Poole with the surrounding countryside and is well used for dog walking and cycling is one such example. In addition, the coastal zone between Poole and Bournemouth may perform this function. If guided by research on recreational patterns, strategic provision of networks of smaller green spaces linked together may perform a wider SANGS function.

Providing access to nature in urban areas:

9.28. Urban habitats support a high diversity of species and offer a range of benefits to urban residents. For example, benefits to a peoples' well being and health and the provision of environmental services such as pollution attenuation and summer cooling. Natural England's promotes the provision of high quality and well maintained 'natural green spaces' close to people's homes; potential sites include private gardens, parks and linear habitats such as railway corridors. In Poole, the entire coastal zone including the network of coastal 'chine' sites provides a model for how habitats of high biodiversity value such as woodland and heathland can be integrated with access trails and coastal viewing spots, providing safe opportunities for local residents to experience nature. Many of these sites are given protection in the planning system through designated as Local Nature Reserves (e.g. Branksome Dene Chine, Poole) or SNCIs (e.g. Canford Cliffs, Poole). Similarly, well managed inner city urban nature reserves such as Hatch Pond (Poole) or Bourne Valley (Poole) perform this function. These models should be extended elsewhere particularly in association with the development of new housing.

9.29. Private gardens can also provide wildlife habitat in urban areas, and are particularly valuable when linked to other adjacent gardens to form a corridor. There is an opportunity to develop neighbourhood or Borough-wide campaigns to develop wildlife-friendly gardens, and to created wildlife corridors by linking private gardens to create wildlife corridors. These measures should be informed by local research on biodiversity, such as the Bournemouth Wildlife Survey.

Environmental stewardship:

9.30. Agri-environmental subsides will be a key mechanism for restoration of habitats outside of urban areas and beyond statutory protected sites. Natural England has identified larger areas of the Study Area as target zones for receipt of Higher Level Stewardship funding. There are two HLS target areas:

[89] Brier, P. and Noss, R.F. Do habitat corridors provide connectivity? *Conservation Biology*. 12: 1241-1252.

- Purbeck & Dorset Heaths[90];
- Dorset Downs and Cranborne Chase[91];

9.31. In general, these target zones focus on buffering, protecting and reconnecting core areas of habitat in the region which are often statutory protected sites. Funding is to be allocated in these zones for biodiversity conservation and landscape enhancement works if it can be demonstrated that these contribute to maintenance/restoration/creation of: lowland heathland; wetlands; species-rich grasslands; acid grassland; coastal habitats; wood-pasture; and woodlands. In addition, provision of habitat for arable birds (e.g. lapwing, grey partridge, yellow wagtail) or wet grassland birds (e.g. lapwing, snipe, redshank) will be funded. Environmental stewardship offers opportunities for reinstating 'functional ecosystem processes', for example, by creating wetland scrapes, reedbeds and flood meadows alongside water courses. It may also act to improve the biodiversity value of farmland by encouraging conservation grazing systems and management techniques benefiting biodiversity such as protection of ancient woodland sites and hedge-laying in the Study Area.

Habitat banking and developer contributions:

9.32. An interim planning framework (due to be replaced by a Development Plan Document in 2009) is already in place for calculating planning obligations on residential development within a 5km radius of Natura 2000 heathland sites[92]. The aim of this approach is to mitigate harm to European protected sites arising from housing growth (e.g. recreational pressure, arson etc.) to provide new alternative SANGS and recreational sites which will contribute to the overall provision for Green Infrastructure. It is possible for land which is to be developed for housing in the Study Area to incorporate other strategic biodiversity goals, for example, by encompassing legally protected species and regional BAP habitats and species. This would require an overarching framework for calculating developer contributions. A system such as this is currently being developed as draft Supplementary Planning Guidance (SPG) for the borough of Brighton and Hove. The Brighton and Hove draft SPG is based on 'nature conservation points' which are calculated on the basis of species and habitats present on site. Developers of new developments must deliver compensation equalling nature conservation points to be lost from a site or otherwise contribute a commuted sum which would allow for ecological restoration off-site. Habitat banking may offer a source of funding to ensure on-going management of existing nature conservation sites. If used strategically, habitat banking could be targeted to deliver large new core areas of habitat to offset the issue of cumulative habitat fragmentation and destruction within the wider Study Area (see issues above).

Site management plans

9.33. Within Bournemouth, management plans have been recognised as an important tool for prioritising and securing appropriate nature conservation management of green spaces. Across the Study Area it may be appropriate to adopt a consistent framework for site management planning. This would enable strategic management priorities to be identified at the sub-regional scale; available resources to be allocated most effectively (e.g. funding, equipment); operational arrangements with those carrying out conservation management to be agreed upon; and monitoring of progress to achieving conservation aims undertaken.

---

[90] Natural England (no date). *HLS Target Area Statement SW18: Purbeck & Dorset Heaths Target Area* [on-line]. http://www.naturalengland.org.uk/images/hlstargeting/Purbeck_&_Dorset_Heaths.pdf (accessed June, 2009).

[91] Natural England (no date). *HLS Target Area Statement SW06: Dorset Downs and Cranborne Chase*. [on-line]. http://www.naturalengland.org.uk/images/hlstargeting/Dorset_Downs_&_Cranborne_Chase.pdf (accessed June, 2009).

[92] The Dorset Heathlands Interim Planning Framework 2006-2009. Borough of Poole, Bournemouth Borough Council, Christchurch Borough Councils, East Dorset and Purbeck District Councils, and Dorset County Council (2007, amended 2008).

Adoption of National Indicator 197

9.34. With the exception of statutory protected sites, Sites of Nature Conservation Importance (SNCI) contain the best examples of semi-natural habitats within the Study Area. Consistent with the need for Site management plans (see above) is the desirability of adopting National Indicator 197 'Improved Local Biodiversity: proportion of Local Sites where active conservation management is being achieved'[93]. NI 197 offers a robust mechanism for securing the appropriate management, enhancement and/or creation of local wildlife sites. NI 197 requires the development of standardised and locally defined criteria for assessing the ecological condition of locally designated nature conservation sites, this information could then be used to monitor the changes in site condition and target restoration work.

Focus on key species

9.35. Certain charismatic species may act as effective 'flagships' to garner public support for habitat restoration work, particularly if this is to be associated with amenity uses of new habitats. Examples in the Study Area may include a relatively large mammal such as otter (for rivers and wetlands), brown hare (for farmland) or a species of wetland bird associated with extensive coastal wetlands such as avocet.

Biodiversity monitoring

9.36. A range of direct and indirect pressures linked to housing growth may affect semi-natural habitats and species in the Study Area. It may not be possible to identify and mitigate for all the possible effects on biodiversity at the outset. Therefore, a common framework for monitoring the condition of certain key habitats and species across the study area will be required so that biodiversity can be managed adaptively. This may include monitoring of the effect of recreational disturbance on breeding success of heathland bird species such as the nightjar *Caprimulgus europaeus* or the effect of air pollution on heathland sites linked to changes in traffic volumes.

Biodiversity opportunity mapping

9.37. The following three initiatives and studies aim to identify the most suitable locations for restoration of key habitats (usually BAP Priority habitats) within the Study Area.

9.38. The aspirational **South West Nature Map**[94] prepared by the South West Biodiversity Partnership identifies broad areas known as **Strategic Nature Areas** (SNAs) within the region. SNAs show the most appropriate areas, based principally on a suite of ecological and geological factors, to maintain and expand terrestrial wildlife habitats at a landscape scale. Within South East Dorset, SNAs are identified for restoration of lowland heathland, woodland, coastal and floodplain grazing marsh and chalk downland (see **Figure 9.4**). The following broad areas would provide opportunities for habitat restoration (corresponding UK BAP Priority habitats are identified in parenthesis, based on the Dorset Biodiversity Strategy[95]):

---

[93] DEFRA (no date). *Local government performance framework: NI 197 - Improved Local Biodiversity – proportion of Local Sites where active conservation management is being achieved*. http://www.defra.gov.uk/environment/localgovindicators/ni197.htm (accessed, May 2009).

[94] South West Biodiversity Partnership (no date). *Nature Map*. [on-line] http://www.biodiversitysouthwest.org.uk/nm_map3dk.html (accessed June, 2009).

[95] Dorset Biodiversity Strategy (2003). *Dorset biodiversity strategy*. [on-line]. http://www.dorsetwildlife.co.uk/the_dorset_biodiversity_strategy.html (accessed June, 2009).

- the most extensive SNAs relate to **lowland heath** (Lowland heathland UK BAP Priority Habitat). Areas identified for restoration are mainly centred on and extend the SACs in the Study Area. Additional, large areas for lowland heath restoration are proposed in and around Wareham Forest north of the Piddle valley; on the Isle of Purbeck, for example, in the large areas of forestry plantation named Wytch Heath, Rempstone Heath and Newton heath; and in the north of the Study Area west of the urban areas at Ferndown and West Moors and around the current Holt Heath SSSI; in addition the area north of Bournemouth Airport where there are several large forestry blocks.

- restoration of **woodland** (mainly UK BAP Priority Habitat type Lowland Mixed Deciduous Woodland but also Wet Woodland and to a lesser extend Lowland Beech and Yew Woodland) in the north east of the Study Area north east of Wimborne Minster and west of Holt Heath and in the south west of the Study Area between Lychett Matravers and Bloxworth north of the B3067;

- restoration of **coastal and floodplain grazing marsh** (UK BAP Priority Habitat type) in the valley of the River Allen as far south as Wimborne Minster; along the valley of the River Avon including Christchurch harbour; and in the valleys of the Piddle and Frome including Poole Harbour;

- restoration of **chalk downland** (calacareous grassland UK BAP Priority Habitat) along high ground in the far south west of the Study Area in the general area between Corfe Castle to Studland incorporating Nine Barrow Down.

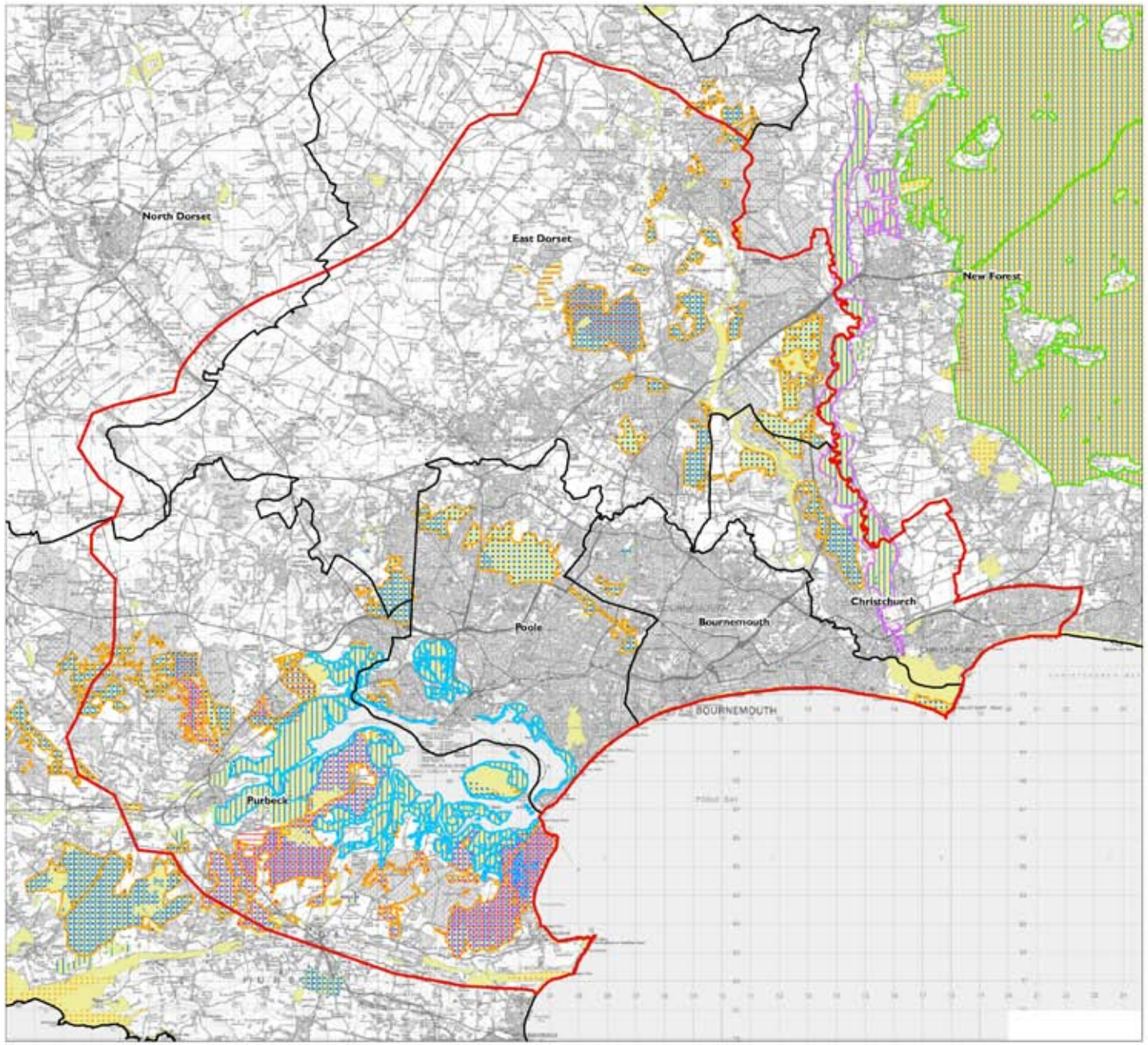
South East Dorset's heaths have international importance, and are under pressure from recreation

9.39. Pre-dating the South West Nature Map, two further studies focus on identifying suitable opportunities for recreation of habitats in the Study Area. The study by Pywell *et al.*[96] focuses specifically on opportunities for heathland recreation focussing on Dorset at the county scale. This study assessed that there were 3,500ha of land classified as having high potential for heathland creation, and these areas were typically coniferous or broadleaved woodland within or adjacent to existing heathland.

9.40. A further study by the RSPB[97] focuses on the area covered by East Dorset, Purbeck and Christchurch and includes three habitat types: heathland and acid grassland mosaic, calcareous grassland and wetlands. A number of detailed maps were produced for the Study Area. In terms of heathland (the most extensive semi-natural habitat type) the RSPB study highlighted the importance of areas of reversion forestry and mineral sites, as well as low grade agricultural land and golf courses (excluding the greens etc) for creation of new heathland habitat.

9.41. It is important to note that each of the above biodiversity opportunity maps is based mainly on ecological, soil, geological and other physiographic variables. However, a wider range of additional variables, for example, social and economic variables must be considered when identifying the most appropriate spatial opportunities for habitat recreation. In addition, in the case of the Pywell *et al*. study, some of the land areas identified as having a high potential for conversion to heathland (eg. deciduous woodland) may already have high nature conservation value and would not therefore be appropriate. The ultimate decision as to where habitats should be created must be based on local considerations.

[96] Pyewell, R., Wadsworth, R., Cooper, J. and Smith, G., (2002). Prioritising heathland re-creation at the landscape scale: a case study of the Dorset Heaths. *Proceedings of the Sixth National Heathland Conference 2001*.
[97] Royal Society for the Protection of Birds (2004). *An Assessment of the Value and Practicality of Habitat Re-creation Opportunity Mapping: A pilot study covering East Dorset, Purbeck and Christchurch*. RSPB, The Lodge, Sandy, Bedfordshire, SG19 2DL



South East Dorset Green Infrastructure Framework

Figure 9.1: Statutory nature conservation sites

Key

- Study area
- Local authority boundaries
- Ramsar site
- National Nature Reserve (NNR)
- Site of Special Scientific Interest (SSSI)

Special Areas of Conservation (SAC)

- Dorset Heaths
- Dorset Heaths (Purbeck & Wareham) & Studland Dunes
- River Avon
- Other SAC (New Forest outside of the study area)

Special Protection Area (SPA)

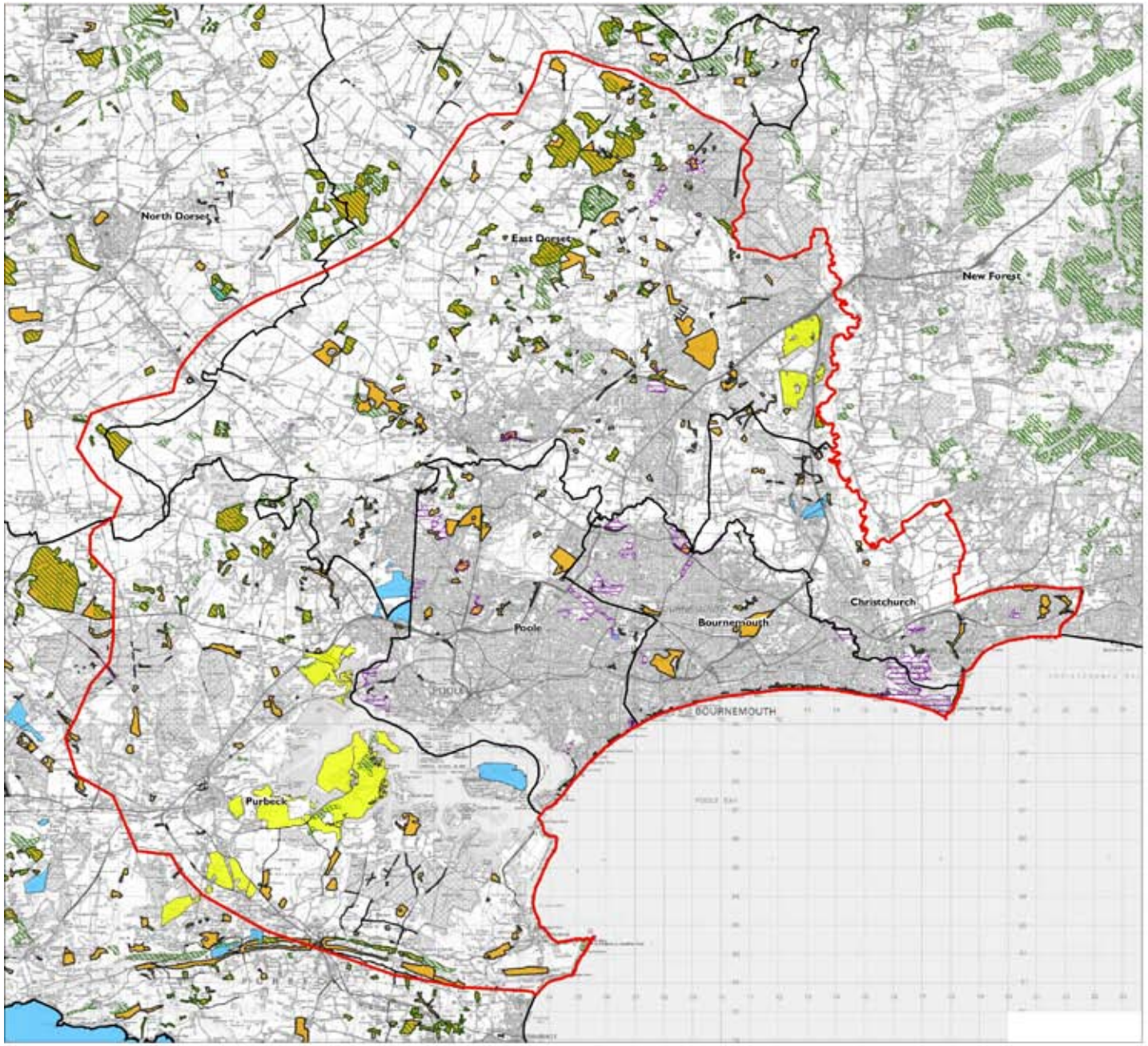
- Avon Valley
- Dorset Heathlands
- Poole Harbour
- Other SPA (New Forest outside of the study area)

N W E S 0 1 2 4 Km

Source: Natural England, Ordnance Survey

Date: 03/12/2009
Revision: D

File: S:\46004641 South East Dorset Green Infrastructure Study\GIS\Themes\ArcGIS\9\4641-01_009_biodiversity_statutorysites_RevD.mxd



South East Dorset Green Infrastructure Framework

Figure 9.2: Non-statutory nature conservation sites

Key

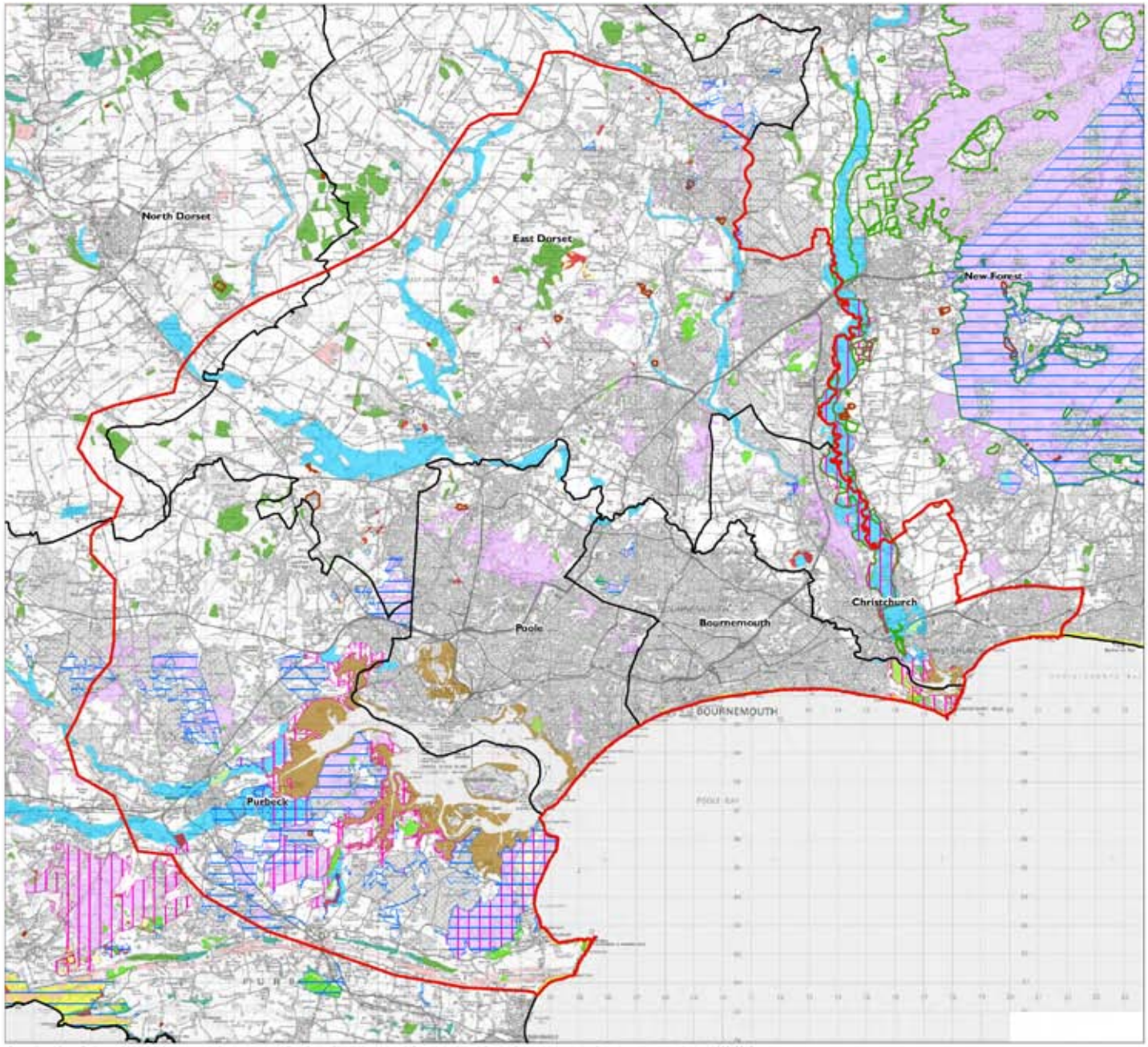
- Study area
- Local authority boundaries
- Local Nature Reserve (LNR)
- Site of Nature Conservation Importance (SNCI)
- Ancient Woodland Inventory site
- Conservation Road Verge
- RSPB reserve
- Dorset Wildlife Trust reserve

N W E S 0 1 2 4 Km

Source: Natural England, Ordnance Survey & Dorset Environmental Records Centre, RSPB

Date: 25/06/2009
Revision: A

File: S:\4600\4641 South East Dorset Green Infrastructure Study\GIS\Themes\ArcGIS\P4641-01_010_biodiversity_localsites_RevA.mxd



South East Dorset Green Infrastructure Framework

Figure 9.3: BAP Priority habitats

Key

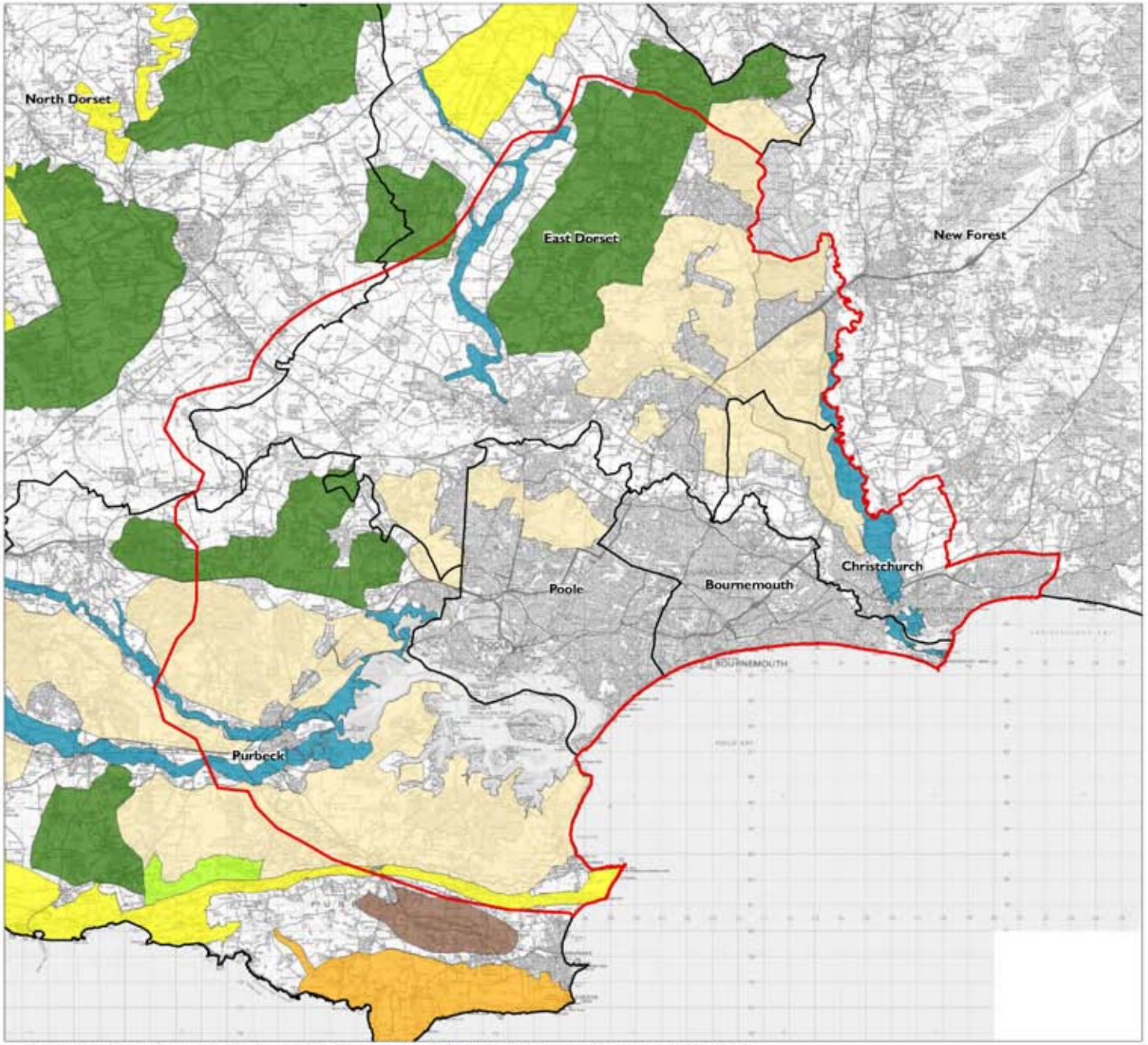
- Study area
- Local authority boundaries
- Fen
- Reedbed
- Undetermined grassland BAP habitat
- Lowland calcareous grassland
- Lowland meadow
- Purple moor-grass and rush pasture
- Lowland raised bog
- Lowland dry acid grassland
- Lowland heathland
- Undetermined woodland BAP habitat
- Lowland mixed deciduous woodland
- Lowland beech and yew woodland
- Saline lagoons
- Maritime cliff and slope
- Coastal and floodplain grazing marsh
- Coastal sand dunes
- Mudflats

N W E S 0 1 2 4 Km

Source: Natural England, Ordnance Survey

Date: 01/07/2009
Revision: A

File: S:\4460\4641 South East Dorset Green Infrastructure Study\GIS\Themes\ArcGIS\4641-01_046_BAP_Habitats_A3_RevA.mxd



South East Dorset Green Infrastructure Framework

Figure 9.4: South West Nature Map

Key

- Study area
- Local authority boundaries

Strategic Nature Areas (SNA's*)

- Woodland
- Chalk Downland
- Limestone Grassland
- Neutral Grassland
- Lowland Heath
- Coastal and Floodplain Grazing Marsh
- Mosaic of Habitats

* SNA's are identified as the best areas to maintain and expand terrestrial wildlife habitats at a landscape scale

N W E S 0 1 2 4 Km

Source: Ordnance Survey & Biodiversity South West

Date: 26/06/2009
Revision: A

File: S:\4600\4641 South East Dorset Green Infrastructure Study\GIS\Themes\ArcGIS\4641-01_047_Dorset_Nature_Map_RevA.mxd

10. CULTURAL HERITAGE

OVERVIEW

10.1. South East Dorset displays evidence of human settlement from as early 10,000BC, with indications of busy ports, hill forts, and manor houses from antiquity to the more recent past. Specific features still visible within the landscape provide important historic landmarks for residents and visitors, helping to shape the particular identity of the area, and contributing to a thriving tourism industry. **Figure 10.1** illustrates the broad heritage features of the sub-region.

KEY FEATURES

Natural Heritage

10.2. Heathland is an ancient man-made landscape dating over 4,000 years, a result of Bronze-age (3,000-600BC) farmers clearing the natural woodland. Over subsequent millennia the heathlands were used for grazing and fuel gathering[98], which resisted reclamation of the habitat by scrub or woodland. Since 1800, however, the majority of heathland has been lost largely due to agricultural, woodland planting, and built development, particularly the urban expansion of Bournemouth and Poole[99]. Traditional grazing of heathland has more recently been re-initiated in locations across Dorset as part of a heathland habitat restoration programme.

10.3. There are pockets of ancient woodland across East Dorset and the northern reaches of Purbeck, providing important sites of natural and cultural heritage. Holt Forest in East Dorset, for example, laid down in approximately the 13th century, has been the subject and venue for community theatre productions exploring the stories, legend, and history of the forest[100].

10.4. The Dorset and East Devon Coast UNESCO World Heritage Site lies just outside the study area, bordering Studland in Purbeck, and is designated for its almost continuous sequence of rock formations spanning some 185 million years of the earth's history.

Monuments, Buildings and Townscape

10.5. There are 262 Scheduled Ancient Monuments in the study area, scattered mostly beyond the Poole, Bournemouth and Christchurch conurbation. A few of the larger sites are described here:

- Hengistbury Head in Bournemouth is an internationally important archaeological site, with evidence of an Upper Palaeolithic (12,000BC) camp, and ongoing human occupation through Mesolithic, Neolithic, Bronze and Iron Ages. Its setting adjacent to Christchurch harbour is unique and important.
- Badbury Rings in East Dorset is an Iron Age hill fort approximately 2,500 years old characterised by three concentric circular ditches surrounding a settlement.
- The Royal Naval Cordite Factory in Purbeck was built during the First World War at the direction of Winston Churchill, and supplied the Royal Navy until its closure in 1959.

[98] *Dorset Heaths – Cultural Background*. Dorset County Council website.
http://www.dorsetforyou.com/index.jsp?articleid=339547
[99] *Tomorrow's Heathland Heritage Programme*. Natural England website.
http://www.naturalengland.org.uk/ourwork/conservation/biodiversity/protectandmanage/thhprogramme.aspx
[100] Performances by the Wimborne Community Theatre. Further information visit the Local Heritage Initiative website:
http://www.lhi.org.uk/projects_directory/projects_by_region/south_west/ dorset/holt_forest_project/holt_forest_play.html

10.6. There is a diverse range of listed and other important buildings in South East Dorset. The Dorset thatched cottage is a recognised image of the area, while large country and manor houses, both private and open to the public, provide important landscapes, architecture, and art collections. The great churches of Christchurch Priory and Wimborne Minster are of national significance, while hundreds of town and village churches provide valuable local examples of Saxon to Victorian styles, as well as early 20th century church architecture[101].

Many centuries of human influence are visible in South East Dorset's landscape

National Trust Properties

10.7. There are five National Trust properties within the study area.

- Brownsea Island (Purbeck)
- Holt Heath and Forest (East Dorset)
- Kingston Lacy Estate (East Dorset)
- Middlebere and Hartland (Purbeck)
- Studland (Purbeck)

10.8. The Kingston Lacy Estate, near Wimborne Minster, is the largest heritage site in the study area. The estate includes the beech-lined avenue along the B3082, planted in 1835 and now reaching the end of its natural life. It also includes the Iron-age Badbury Rings hill fort, a Schedule Ancient Monument.

[101] para.5.1.5, Dorset Heritage Strategy. Dorset County Council.

10.9. The Dorset Historic Towns Project is undertaking surveys of the archaeology, topography and historic buildings in a number of historically significant settlements across the County[102]. A technique called characterisation is being used to identify, analyse and understand the diverse range of features and factors which combine to give each town its local distinctiveness. The project is looking at 5 towns in the study area; Poole, Bournemouth, Christchurch, Wimborne, Wareham and Cranborne, on the northern fringes of the study area. Cranborne is recognised for its medieval town pattern, which survives virtually intact, and its manor house and gardens are of national historic and architectural significance[103].

Landscapes, Parks & Gardens

10.10. There are ten parks and gardens of historic interest in the study area. These include:

- Poole Park, 45ha of regionally-significant recreational space near Poole's town centre. It is one of only two Victorian parks in the town, opened in 1890 and now designated a conservation area. It includes two large lakes, open parkland, and extensive views across Poole Harbour.
- Upton County Park, with Upton House a Grade II* listed building set within gardens and parkland on the edge of Poole Harbour.
- St. Giles House Park in East Dorset is a Grade II park of national significance, established around a manor house built in 1650.
- The Upper, Central and Lower Pleasure Gardens in Bournemouth Town Centre are registered as special historic interest, being listed as Grade II*.

10.11. Work is currently underway by Dorset County Council to characterise the County's historic landscapes.[104]

CURRENT ISSUES

10.12. A number of current issues were identified in relation to cultural heritage:

- Development pressure can put locally-important but undesignated sites or features at risk, such as mature trees or established gardens.
- The need for restoration or repair of designated or locally important sites may often be unmet due to cost constraints. Currently, the condition of several listed parks and gardens is very poor (as rated by English Heritage).
- Historic heathlands are under considerable pressure from urban settlements (such as development, trampling, fire), and from lack of management as the historic uses that ensured the continued management of heathland have declined.
- Removal of conifer plantations in appropriate locations would reveal important heritage features in the landscape, as well as contributing to an enhanced sense of place.
- The management of Scheduled Ancient Monuments and other archaeological remains and the general effects of ploughing on these.

[102] Dorset Historic Town Survey. http://www.dorsetforyou.com/index.jsp?articleid=390076
[103] p.2, Cranborne Historic Urban Characterisation. Draft for initial consultation. Dorset County Council (March 2009).
[104] Phone conversation, Claire Pinder, Dorset County Council. 15th May 2009.

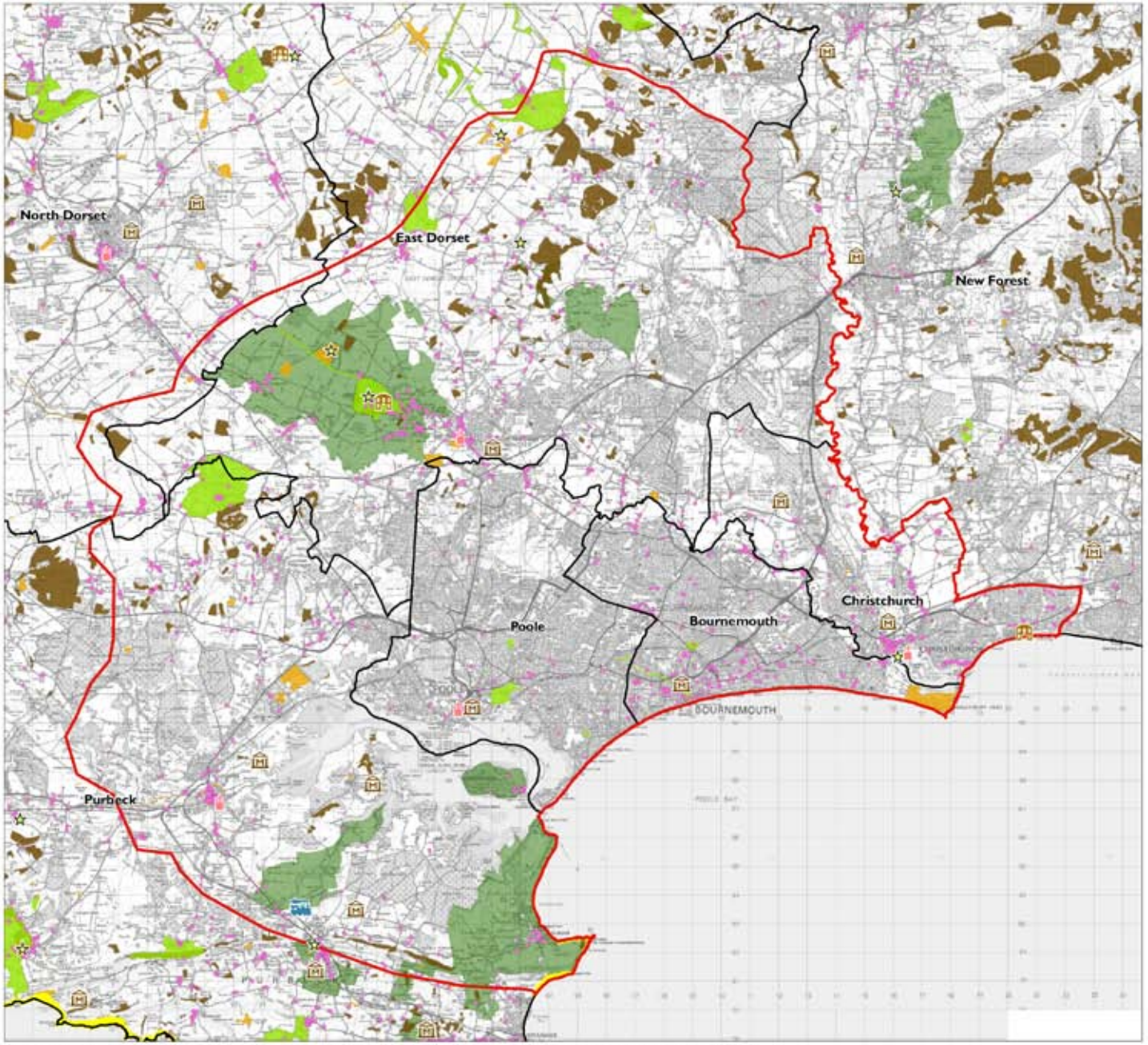
OPPORTUNITIES

10.13. Key opportunities to improve South East Dorset's heritage assets essentially concern three issues:

- Protecting and improving the quality of existing assets
- The proper ongoing management of Scheduled Ancient Monuments and other archaeological sites.
- Enhancing the interpretation and educational offer of these assets

10.14. These issues should be the focus of enhancing cultural heritage in the sub-region, and of incorporating a heritage dimension into green infrastructure. Other opportunities include:

- Interpretation of heritage assets can be passive, such as plaques and info-boards, or more active, such as guided tours, events, or visitor facilities.
- Traditional land management could be restored. There are existing heathland grazing initiatives, such as the RSPB Dorset Heathland Project and Hardy's Egdon Heath Project, which could be supported, as well as coppicing of woodland and management of marshland. Working partnerships, such as the Urban Heaths Partnership, will be an important part of re-implementing and raising awareness of traditional management practices.
- There is potential for the Dorset Urban Heaths Grazing Partnership to be involved in management of Upton Country Park. The Council owned farm surrounding the park offers the opportunity to provide additional recreational facilities and grazing land compatible within the green belt.
- Heritage-based recreational trails, such as the 7.5 mile Poole Heritage Cycle Route, could be replicated and expanded throughout the sub-area. The Dorset Inland Heritage Trail lies outside of the study area, but could be linked to or replicated within South East Dorset.
- The maintenance of listed buildings and parks and gardens should be managed, with an aim to restore all designated sites to good quality (according to English Heritage's assessment).
- The broader setting of listed and other important buildings provides an opportunity for landscape enhancement, which can contribute to restoring the condition of the building/site itself and improve the draw of the site for visitors, while providing a green infrastructure resource.
- Improving access, while ensuring sensitive sites are not adversely impacted from recreational use, would enhance the heritage offering of the sub-region. Such measures would be most effective if coupled with awareness/education measures, whether passive or more active.



South East Dorset Green Infrastructure Framework

Figure 10.1: Cultural heritage

Key

- Priory/Minster/Churches (open to the public)
- Historic house (open to the public)
- Landmark/antiquity
- Museum (open to the public)
- Swanage railway
- Study area
- Local authority boundaries
- Listed Buildings
- Scheduled Ancient Monuments
- Registered Parks and Gardens
- Dorset and East Devon Coast World Heritage Site
- Ancient Woodland
- National Trust land

N W E S 0 1 2 4 Km

Source: Ordnance Survey, English Heritage, Natural England, Christchurch BC

Date: 03/12/2009
Revision: C

File: S:\46004641 South East Dorset Green Infrastructure Study\GIS\Themes\ArcGIS\P46411-01_015_Cultural_heritage_RevC.mxd

February 2010

PART 2:
ANALYSIS AND GI FRAMEWORK

11. INFORMATION ANALYSIS AND CONSULTATION

INTRODUCTION

11.1. This section provides details of the analysis which was undertaken to inform our green infrastructure opportunity maps. This includes GIS analysis of existing green space provision, in order to develop a provision standard for green space throughout the sub-region, and a consultation workshop with local stakeholders and experts, in order to inform the provision standard, and general GI opportunities.

OPEN SPACE PROVISION STANDARDS

11.2. Open space provision standards provide a threshold or target for provision of open space within a specific geographical area. Standards are commonly developed at a local level, as recommended by Planning Policy Guidance Note 17 (PPG17) Planning for Open Space, Sport and Recreation. National standards have also been developed however, and these are sometimes specific to a certain type of open space. Examples include Natural England's Accessible Natural Greenspace Standards (ANGSt) and the Town and Country Planning Association's (TCPA) open space standards. Open space standards have two key roles in planning:

- To provide an aspiration for provision of open space across an existing area
- To place a requirement on developers in delivering new residential development.

11.3. Open space provision standards tend to have three elements; accessibility, quantity and quality. For the purpose of this study, an accessibility (distance) deficiency standard has been developed. The development of a quality standard was outside the scope of this study, and a sub-regional quality standard is not considered appropriate, as quality is best assessed at a local level.

11.4. Open space standards are frequently employed as an evidence base to help secure developer contributions. There is potential for South East Dorset to utilise this approach. A quantifiable standard should be applied in combination with design principles, in order to ensure that open space also serves to provide other green infrastructure functions. Consideration was given to mapping both distance and quantity standards across South East Dorset. However, due to the nature of the open space data available, which has been derived from a range of different sources (which creates overlaps in the data), it was not possible accurately to map quantity of provision across the sub-region. We have therefore focussed on mapping accessibility deficiency standards, which are the most useful way of spatially targeting areas for future green space investment.

11.5. The approach employed to develop an open space deficiency standard for South East Dorset is provided below. The method has been iterative and involved an initial set of draft maps for discussion followed by a set of revised maps informed by stakeholder consultation.

Initial proposed method for discussion

Define accessible green space coverage within South East Dorset

11.6. Data on open space was received in multiple formats from a range of data sources. In order to create a comprehensive layer of accessible natural greenspace, a number of broad assumptions have had to be made. The following steps were taken to create this layer:

- Assign a typology to each of the Local Authority open space data sets;
- Where no information on accessibility is provided, assume that the site is accessible;
- Remove sites smaller than 2ha; and
- Remove sites of unsuitable typology (outdoor sports facilities, civic spaces, institutional land, operational land and children and young people).

11.7. As the Local Authority data does not cover the entire spectrum of open spaces, a further layer of 'other nature conservation designations' was created to supplement the Local Authority data including all SAC, SPA, Ramsar, SSSI, NNR, RSPB, LNR sites.

Review and map existing standards

11.8. A range of open space standards was reviewed, including those developed at a local level through local PPG17 open space studies, and nationally promoted standards such as Natural England's ANGSt standards and the Town and Country Planning Associations open space standards. A summary of relevant distance standards identified is provided in **Table 11.1** below.

Table 11.1: Existing open space standards

Type of open space	Bournemouth and Poole	Christchurch and East Dorset	Purbeck	National
Accessible natural green space	N/A	450m from a small site 600m from a large site	600m (15 min walk)	Natural England's ANGSt: 2ha site within 300m 20ha site within 2km 100ha site within 5km 500ha site within 10km
Parks and gardens	N/A	450m	-	Town and Country Planning Association 2ha = 300m 20ha = 1.2km 60ha = 3.2km
Amenity green space	N/A	450m	-	-

Map existing standards

11.9. The local and national distance thresholds were applied to the newly created 'accessible natural greenspace' map layer and illustrated as shaded distance buffers on the maps. Coloured buffers were used to indicate the areas which are accessible at each level of the hierarchy. These maps were presented to stakeholders at the stakeholder workshop, to inform discussion on an appropriate standard for South East Dorset.

11.10. It is important to highlight existing reliance on the Dorset heathlands as a recreational resource, despite its sensitivity to recreational pressure. As such, the open space deficiency analysis includes mapping of provision with the Dorset Heaths, and also where they have been excluded from the accessible natural green space layer. This has allowed the areas of South East Dorset which are currently reliant on the Dorset Heaths for access to nature to be highlighted. The areas which are reliant on these areas should be prioritised for future creation of new accessible natural greenspace, or enhancement of existing sites to provide this function.

Consult local stakeholders

11.11. At the Green Infrastructure stakeholder consultation workshop, LUC presented the benefits of, and approach to, developing an open space standard for the sub-region. Stakeholders were then divided into groups to discuss and comment on the accuracy of the mapped open space information, and the relevance of the mapped national (ANGSt) and local standards to real GI deficiency in the sub-region. Some useful feedback was provided by stakeholders, which then informed revisions to the open space deficiency maps. A summary of key changes suggested at the workshop follows:

- Whilst a range of views were expressed on the provision standard, there was broad consensus that the 400m standard which has been applied in relation to the Dorset Heaths Interim Planning Framework was more suitable for South East Dorset than the 300m standard outlined by ANGSt.
- For larger open spaces, there was general consensus that the ANGSt standards provided a suitable distance provision standard.
- It was recommended that where there are several connected small sites, these should be merged where possible to provide a more accurate reflection of the total area of open space provided.
- Natural and man-made barriers to access, such as major roads, rail and estuaries should be mapped and incorporated into the deficiency analysis where possible, in order to provide a more accurate reflection of open space provision.
- The importance of the coast as a strategic open space resource was highlighted, and it was agreed that a provision buffer would be applied to the coastal zone, to represent this important open space destination.
- Other nature conservation designations should not be included due to restricted accessibility, but the New Forest National Park should be included as a publicly accessible site.

Revising the accessible open space layer and creating accessibility maps informed by the stakeholder workshop

11.12. In order to refine the sites included in the accessible greenspace layer, extra data was incorporated for land in 'other ownership' which included Woodland Trust Woodlands for People, Forestry Commission data provided by the Steering Group, National Trust land, Open Access Land and Registered Common Land. It has not been possible to establish the level of accessibility of these sites (with the exception of some of the National Trust sites). Where accessibility is unknown, it is important to highlight the catchments of these sites in another colour on the maps rather than exclude them altogether.

11.13. **Table 11.2** below illustrates the types of sites that have been drawn upon to create the revised comprehensive layer of accessible natural greenspace. Due to the coarseness of some of the datasets provided for this study, this dataset should only be used as a guide until more information is known about some of the sites.

Table 11.2: Data sources reviewed to create accessible natural greenspace layer

Data source	Assumptions	Included in the accessible natural greenspace layer?
Land in 'other ownership'		
Woodland Trust Woodlands for people	Sites cannot be assumed to be publicly accessible	Yes (if size >2ha)
Forestry Commission sites	Sites cannot be assumed to be publicly accessible	Yes (if size >2ha)
National Trust owned land	Accessibility has been assessed through some consultation and research on the National trust website	Yes (if publicly accessible and size >2ha)
Open Access Land	Sites cannot be assumed to be publicly accessible	Yes (if size >2ha)
Registered Common Land	Sites cannot be assumed to be publicly accessible	Yes (if size >2ha)
Beach	The beachfront is accessible and allows users access to nature	Yes (but only at the lowest two levels of the hierarchy i.e. 450m and 2km buffers)
Nature conservation sites (SAC, SPA, Ramsar, NNR, LNR, RSPB)	Only New Forest is accessible	No (except New Forest)
Open space data (provided by Local Authorities)		
Parks and gardens	Publicly accessible sites mapped in a different colour to sites where accessibility is unknown	Yes (if size >2ha)
Natural and semi-natural greenspaces	Publicly accessible sites mapped in a different colour to sites where accessibility is unknown	Yes (if size >2ha)
Green corridors	Publicly accessible sites mapped in a different colour to sites where accessibility is unknown	Yes (if size >2ha)
Outdoor sports facilities	Not a suitable typology	No
Informal recreation	Publicly accessible sites mapped in a different colour to sites where accessibility is unknown	Yes (if size >2ha)
Amenity greenspace	Publicly accessible sites mapped in a different colour to sites where accessibility is unknown	Yes (if size >2ha)
Private greenspace	Publicly accessible sites mapped in a different colour to sites where accessibility is unknown In this case, 'private' refers to the ownership and not the accessibility	Yes (if size >2ha)
Allotments and community gardens	Not a suitable typology	No
Cemeteries and churchyards	Publicly accessible sites mapped in a different colour to sites where accessibility is unknown	Yes (if size >2ha)
Civic spaces	Not a suitable typology	No

Data source	Assumptions	Included in the accessible natural greenspace layer?
Countryside	Publicly accessible sites mapped in a different colour to sites where accessibility is unknown	Yes (if size >2ha)
Community, leisure or educational facilities	Not a suitable typology	No
Children and young people	Not a suitable typology	No
Unknown typology	Assume that these sites are suitable. Publicly accessible sites mapped in a different colour to sites where accessibility is unknown	Yes (if size >2ha)

11.14. Nature conservation designations were discussed at the stakeholder workshop in terms of their accessibility, and it was decided that in general, these sites are not accessible or severely limited in access and would not be included in the accessible open space layer.

11.15. A certain amount of data cleansing has been undertaken in order to amalgamate clusters of open space that are adjacent into larger spaces (in GIS, where possible, sites with identical names or reference codes were merged). Limitations in the data meant that this was not possible in all cases.

11.16. Although it is acknowledged that there are some significant barriers to access within the study area including rivers with limited bridging points, railways, the harbour and MOD land, it has not been possible to adjust the distance buffers to reflect these barriers as GIS data (for barriers) at an appropriate scale has not been made available and it would require significant amounts of manual editing of the buffers in GIS which is not possible within the scope of this study.

South East Dorset Open Space Provision Standards and revised deficiency mapping

11.17. The suite of distance provision standards proposed for application across South East Dorset are outlined in **Table 11.3**.

Table 11.3: South East Dorset Open Space Provision Standards

Size of open space	Distance provision standard
2 – 20ha	400m
20 – 100ha	2km
100 - 500ha	5km
> 500ha	10km

11.18. The 400m distance standard to open space sites of 2-20ha is based on an analysis of visitor survey data from a sample of 18 heathland sites within and bordering the Poole, Bournemouth, and Christchurch conurbation, which found that 46% of all visitors lived within 400m of the site measured as a straight line distance between their property and the site visited[105]. This 400m_distance has been well tested at appeal hearings where it has been found to represent a pragmatic approach to defining areas that are readily accessed by local people.

[105] Rose, R.J. and Clarke, R.T. 2005. Urban impacts on Dorset Heathlands: Analysis of the heathland visitor questionnaire survey and heathland fires incidence data sets. English Nature Research Report No. 624. English Nature, Peterborough

11.19. Existing open space provision and deficiency are shown in **Figures 11.1 – 11.3.** Areas which are accessible at each level of the hierarchy have been shaded in green , areas which arewithin the catchment of a site with unknown accessibility have been mapped in purple and those areas which are outside of these buffers on the maps can be considered deficient in access to natural greenspace and have been shaded in orange. Potential barriers to access, although they have not been taken into consideration in the mapping, have been illustrated on the maps to highlight their locations.

11.20. Removing the Dorset Heaths from the open space layers in GIS is a complex task due to the number of different data sources drawn upon to create the composite layer. The process of removing the sites can in some cases leave some linear areas around the SPA boundary where the data sets are not coincident and an attempt to remove these areas has been made. The process also has the effect of fragmenting the larger spaces into smaller clusters of adjacent sites, and it has not been possible to reconstruct the larger sites due to the quality/attributes of the original data. This may have the effect of reducing larger sites to clusters of smaller sites which subsequently receive smaller buffers. These maps should therefore be seen as indicative.

Open space provision in South East Dorset

Access to strategic green spaces

11.21. As explained in paragraph 11.10, it was agreed that it would be useful to map deficiency in access to strategic open space with Dorset Heaths SPA included as open space, and also to map deficiency excluding the Dorset Heaths SPA. This highlights those areas which are dependent on the Dorset Heaths for recreation.As illustrated in **Figure 11.1**, when the deficiency standards are applied inclusive of the Dorset Heaths, provision of strategic accessible greenspace across most of the study area is good. The exceptions to this are the Poole – Bournemouth border in the urban area, which is deficient in access to sites of 100ha or above within 5km, and an area of east Bournemouth, including Boscombe, and Oakley and southern parts of Wimborne Minster, which lack an accessible green space of 500ha or more within 10km.

11.22. This issue needs to be considered in light of surrounding land uses however, and in reality whilst Wimborne may not have a 500ha accessible natural greenspace within 10km, it does have good access to the wider countryside. This 'reality check' means that future provision of a large accessible natural green space should be sited to serve the populations of the urban conurbation primarily, as they have less opportunity to access the countryside. Overall, deficiency in strategic accessible green space is low when the Dorset Heaths are included in calculations.

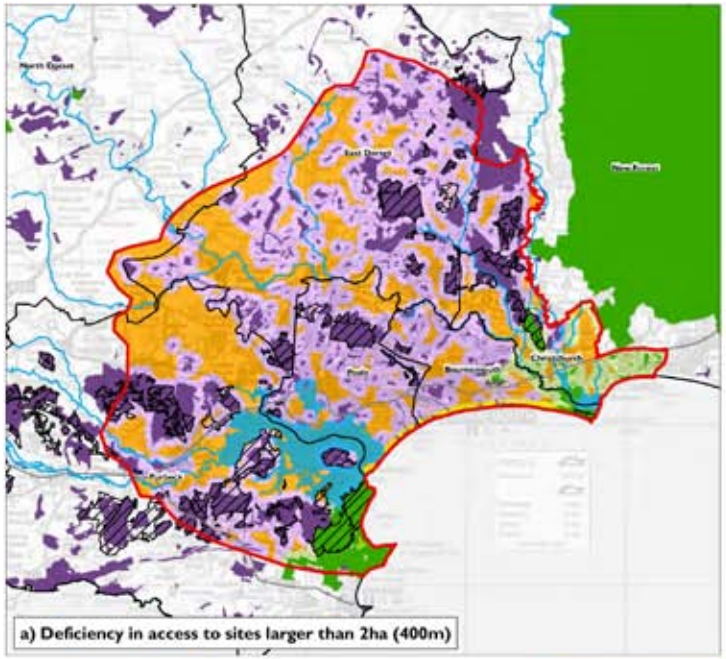
11.23. This changes considerably when the Dorset Heaths are excluded from the accessible green space areas, as illustrated in **Figure 11.2**. This reveals that most of the urban conurbation is deficient in access to a site of at least 100ha within 5km, and that residents of Poole, Bournemouth and Wimborne Minster lack a 500ha site within 10km of their homes.

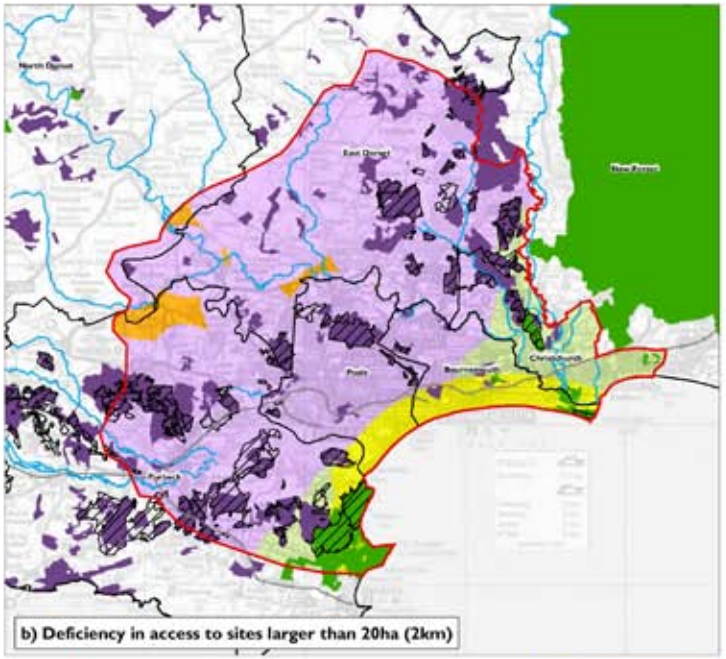
11.24. The locations which are either deficient in access to strategic green space, or are currently dependent on the Dorset Heaths sites for provision of access to nature, should be prioritised for investment in enhancing existing open space so that it provides access to nature, or creating new green space which performs this function. Areas of the conurbation which have good access to the coast should be treated as less of a priority for action, as the coast provides many, although not all, of the functions of accessible natural green space.

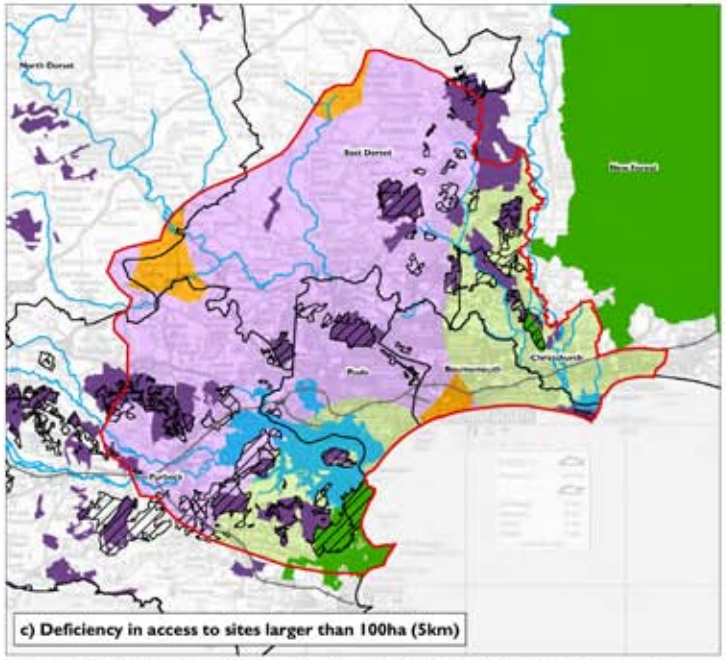
- Who might be responsible for delivering these opportunities?

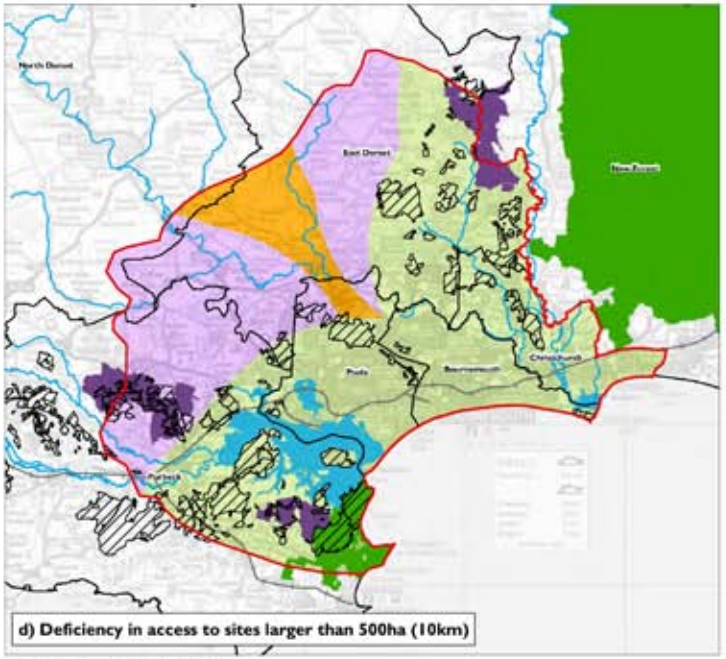
11.30. The second session involved discussion of the draft open space deficiency standards, as detailed above. Attendees were asked to review the mapped open space deficiency standards, and respond to the following questions:

- Is the mapped open space data accurate? (Note: this data was provided by local authorities)
- Which distance standard(s) best reflect real open space deficiency in the sub-region?
- Are there any major physical barriers to open space access that my affect the provision of open space in the sub-region?
- How would you like to see these standards applied or adopted in the future?









South East Dorset Green Infrastructure Framework

Figure 11.1: Deficiencies in access to natural greenspace (including the Dorset Heaths)

Key

- Study area
- Local authority boundaries
- Dorset Heaths SPA
- Publicly accessible greenspace
- Greenspace with unknown accessibility
- Access to the coast
- Not within an area of deficiency
- Within the catchment of natural greenspace site with unknown accessibility
- Area deficient in access to natural greenspace in the study area

Potential barriers to access

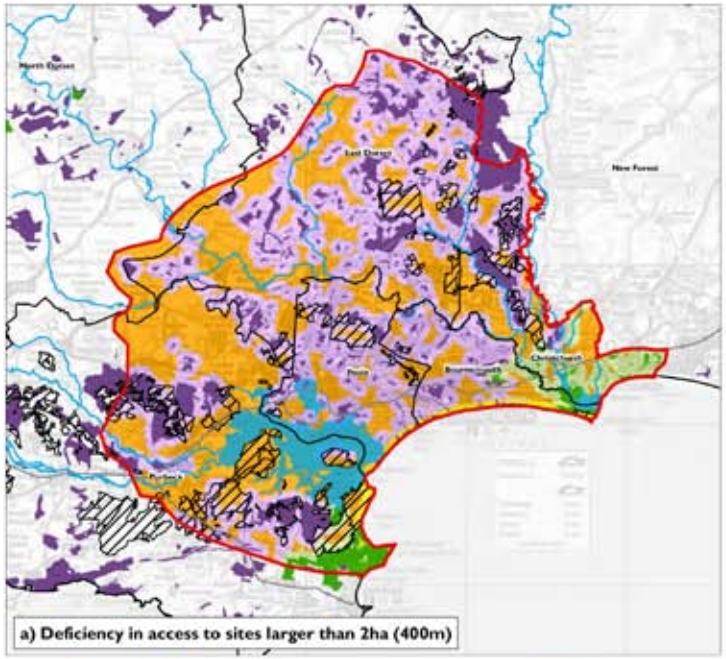
- Railway
- River
- Harbour region

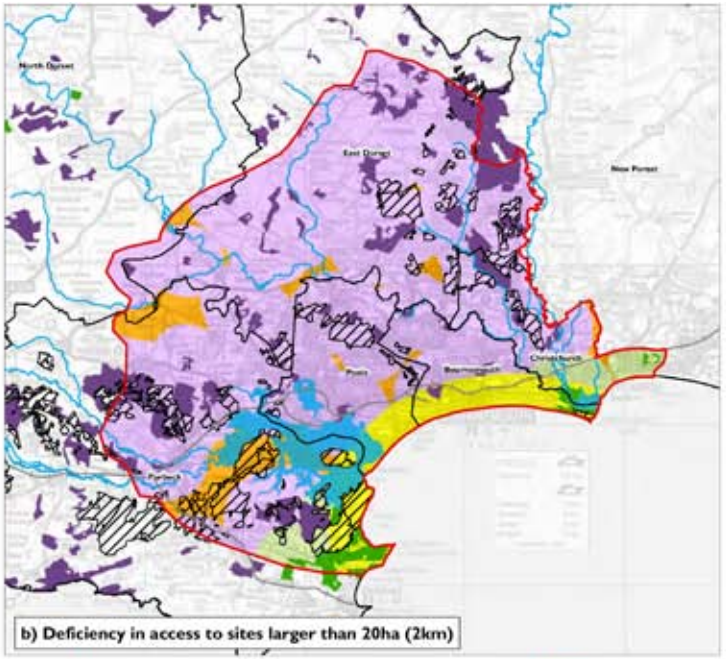
N W E S 0 2 4 8 12 Km

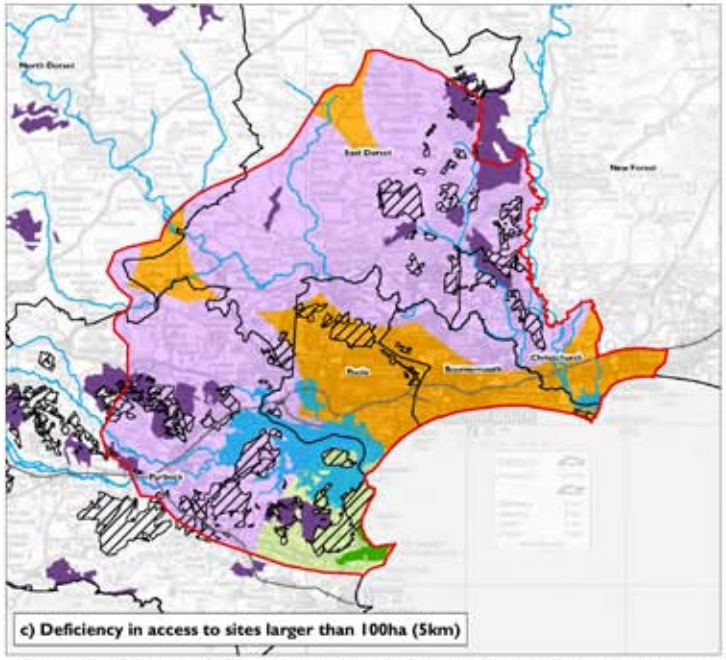
Source: East Dorset, North Dorset, Purbeck, Christchurch, Bournemouth, Poole, Woodland Trust, National Trust, Natural England, Forestry Commission, Ordnance Survey, Environment Agency

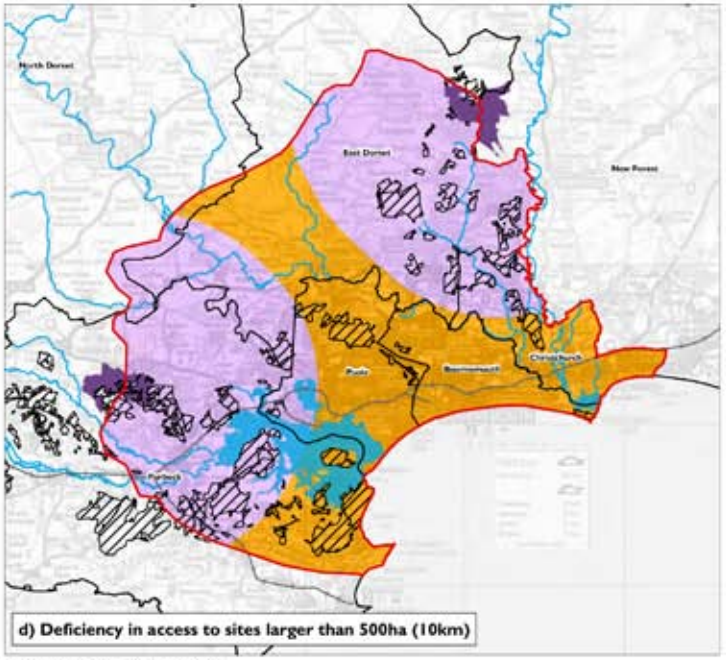
Date: 17/08/2009
Revision: B

File: S:\4600\4641 South East Dorset Green Infrastructure Study\GIS\Themes\ArcGIS\9\4641-01_041_ANGST_RevB.mxd









South East Dorset Green Infrastructure Framework

Figure 11.2: Deficiencies in access to natural greenspace (excluding the Dorset Heaths and the New Forest)

Key

- Study area
- Local authority boundaries
- Dorset Heaths SPA
- Publicly accessible greenspace
- Greenspace with unknown accessibility
- Access to the coast
- Not within an area of deficiency
- Within the catchment of a natural greenspace with unknown accessibility
- Area deficient in access to natural greenspace in the study area

Potential barriers to access

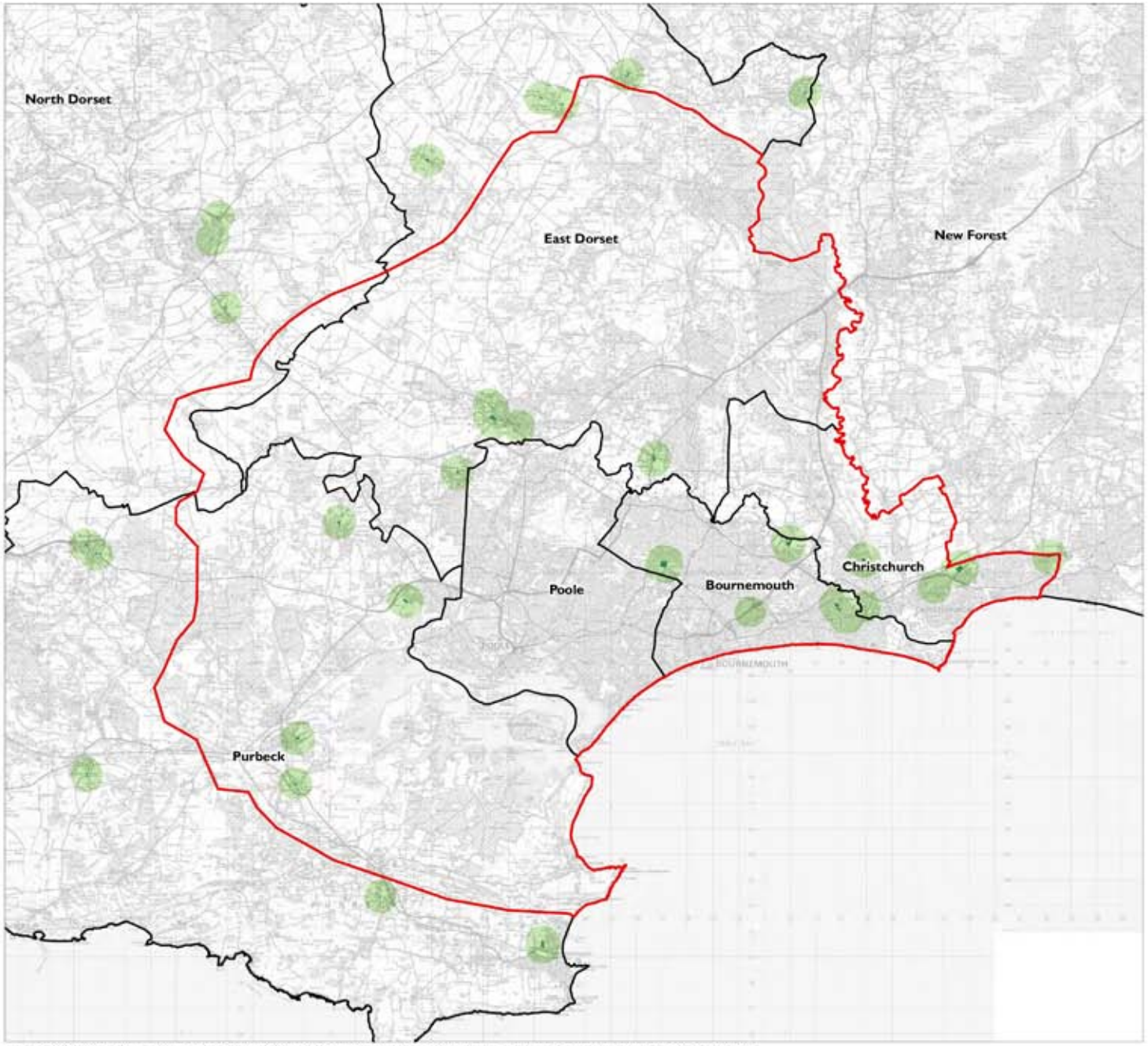
- Railway
- River
- Harbour region

N W E S 0 2 4 8 12 Km

Source: East Dorset, North Dorset, Purbeck, Christchurch, Bournemouth, Poole, Woodland Trust, National Trust, Natural England, Forestry Commission, Ordnance Survey, Environment Agency

Date: 15/02/2010
Revision: C

File: S:\46004641 South East Dorset Green Infrastructure Study\GIS\Themes\ArcGIS\P46441-01_043_ANGST_No_DHeaths_RevC_NO_NForest.mxd



South East Dorset Green Infrastructure Framework

Figure 11.3: Other access considerations

Key

- Study area
- Local authority boundaries
- Allotments and community gardens
- Within 600m of allotments and community gardens

N
W E
S

0 1 2 4 Km

Source: East Dorset, North Dorset, Purbeck, Christchurch, Bournemouth, Poole,

Date: 17/08/2009
Revision: B

File: S:\4600\4641 South East Dorset Green Infrastructure Study\GIS\Themes\ArcGIS\P4641-01_026_Allotments_RevB.mxd

Access to local green spaces

11.25. Many parts of the study area are deficient in access to a site of 2ha or more within 400m of their home. This is the case regardless of whether the Dorset Heaths are included in green space provision maps or not, but this trend is exacerbated when the Dorset Heaths are excluded. Areas of notable deficiency include: West Parley, Pokesdown, Wick, Winton, Moordown and parts of the town centre in Bournemouth; Parkstone and Branksome Park in Poole; Jumpers Common in Christchurch and western areas of Wimborne Minster. Smaller towns and villages which are deficient in access to local green space include Lynchett Matravers and Sturminster Marshall. Local authorities should work at a local level to identify sites where there is the potential to create new green space, or existing green space which has the potential to provide a better quality of green space provision.

Access to allotments

11.26. The Christchurch and East Dorset PPG17 Open Space, Sport & Recreation Strategy recommends an allotment distance provision standard of 600m, and this is applied to allotments across the sub-region in **Figure 11.3.** Application of this recommended standard indicates that most areas of the sub-region are deficient in access to a local allotment. There is widespread deficiency in access to an allotment or community garden across Poole and in northern and western areas of Bournemouth, as well as in Ferndown, West Moors and Verwood.

Approach to consultation workshop

11.27. In June 2009, a stakeholder workshop was held in Bournemouth to inform the development of the South East Dorset Green Infrastructure Framework. The workshop was run by LUC alongside members of the project steering group, and attended by approximately 40 people. The purpose of the workshop was to share and validate LUC's research on the sub-region's existing environmental and green infrastructure assets, and gather any missing information and recommendations from stakeholders. Comments received have been reviewed and reflected in the GI opportunities where appropriate. A full summary of comments received is provided as **Appendix 3.**

11.28. The workshop consisted of two discussion sessions where the attendees were split into smaller discussion groups. The first session focussed on the identification of key issues and opportunities across the range of themes:

- Sustainable economic development and tourism
- Water management and climate adaptation
- Health and well-being, recreation and access
- Landscape character and cultural heritage
- Ecology and biodiversity

11.29. Attendees were asked to discuss the following questions in relation to the themes:

- What do you perceive are the key issues in relation to (theme)?
- Are you aware of any existing or planned initiatives relevant to (theme)?
- Where do key opportunities lie in relation to (theme?)

12. GI FRAMEWORK

12.1. A number of opportunities have been identified within South East Dorset, and these opportunities have been mapped as a GI Framework for the sub-region. This framework aims to reflect the priorities for delivery of GI functions, through identification of spatial zones for enhancement. The overall aspiration is to deliver a range of green infrastructure functions across the sub-region, to reflect the range of GI objectives. This aspiration should be delivered through the sub-regional GI strategy, via interpretation of the GI objectives into principles for the planning, design and management of green infrastructure.

12.2. **Figure 12.1** illustrates broad opportunities for green infrastructure across South East Dorset.

URBAN GREENING ZONE

12.3. Opportunities for GI investment in the conurbation are focused on two priorities:

- creating a sustainable travel network, which promotes cycling and walking over less sustainable transport modes; and
- enhancing semi-natural habitats and integrating micro green infrastructure (such as green walls, tree planting, sustainable drainage systems) within existing and new development.

Green walls need not be expensive to create, and can provide climate cooling functions in urban areas

Sustainable, healthy travel zone

12.4. Attractive routes and infrastructure for cyclists and pedestrians should be improved to enhance the sustainable transport network. These improvements to the urban environment will have both environmental and health benefits. This is considered a vital measure to improving the quality of life and environment in the sub-region. Access to recreational assets beyond the urban conurbation has been identified as a key issue by stakeholders. Opportunities to provide for leisure and commuter access by bicycle across the urban rural fringe should be a priority. This network should utilise existing rights of way in the first instance, but may also include some investment in new links and use of roads where necessary.

12.5. The relevant Highways departments in local authorities should work together, with support from Sustrans to develop, signpost, and publicise recreational and commuter/utility cycle routes throughout the sub-region, and to:

- Provide efficient routes between transport nodes and service/employment centres for commuters.
- Provide safe and pleasant routes between recreational sites and service centres for residents and visitors.
- Support Sustrans 'Safe Route to Schools' initiative[106] and local schools to develop, signpost, and publicise *Bike to School* routes.
- Direct routes into/out of the urban conurbation may encourage a portion of suburban/ rural commuters to travel by bicycle (see Improved Cycle Commuting Infrastructure, below).
- Off-road routes linking to recreational trails, such as the Castleman Trailway or the Stour Valley Way, could encourage urban residents/visitors to access recreational or leisure assets by bicycle.
- Promote healthy travel in areas with moderate to high levels of health deprivation. For example, Pokesdown Station could be targeted for promotion of sustainable travel, to help address the health deprivation in Boscombe.
- Undertake a cycle network appraisal using GIS to assess the relative value of routes in relation to a range of criteria including trip generators, directness, safety and attractiveness. This would help to prioritise routes for future investment based on where greatest benefit of investment would be accrued.

[106] Sustrans 'Safe Link to Schools' initiative: http://www.sustrans.org.uk/what-we-do/safe-routes-to-schools

Well-signed off road access routes can encourage people to leave their car at home

12.6. There is a need to provide safe, direct, and attractive pedestrian crossings at roundabouts and over barriers (such as arterial roads). Within service centres, improving the public realm to encourage pedestrian use should be a priority, by providing sufficient, well-defined pedestrian areas with appropriate and well maintained planting and street furniture to encourage their use. The opportunities to incorporate green infrastructure into these elements are extensive. Pedestrian areas will comprise the pavement in particular, but also squares, promenades, traffic-free roads, intersections, larger roundabouts, and smaller laneways.

Improved Cycle Commuting Infrastructure

12.7. Infrastructure to encourage cycling as a mode of transport should be provided along well-used commuter routes as a priority. The sub-region's main employment centres have been identified, and the priority zones for improving cycle commuting infrastructure have been defined based on these employment centres.

Environmental enhancements

12.8. To provide access to nature and improve environmental quality and ecological connectivity, **enhance semi-natural habitats** throughout the conurbation. This should be achieved by planting more street trees, creating urban woods where feasible, promoting green roofs and walls in new and existing development, requiring the use of sustainable drainage systems (incorporating habitat features such as ponds, reedbeds and wetland vegetation types) in new development, encouraging more appropriate mowing regime to foster development of meadow grasslands in green spaces, native species planting, and many other measures.

- Consult local ecology experts and grounds maintenance staff for guidance on how best to encourage semi-natural habitats in the urban conurbation.

- Areas which current suffer from poor quality living environment, and where residents have less access to gardens should be prioritised for investment.

- Launch a wild gardens scheme to provide education on and encourage local communities to provide wildlife-friendly gardens (such as drought resistant planting, mixed hedgerows, and using mulch).

- Consider providing detailed guidance on habitat and biodiversity opportunities in new development, e.g.: advising on appropriate plant species, nesting boxes, swift nest bricks, etc. Such guidance could be incorporated in an SPD or as an appendix to more general guidance (e.g. the Bournemouth Residential Design Guide).

GREEN SPACE CREATION AND ENHANCEMENT

12.9. There is a need to address the open space deficiency and health deprivation identified within the Poole/Bournemouth/Christchurch conurbation by seeking opportunities to create new multi-functional and attractive green space within the urban area. At a strategic level, the proposed Stour Valley proposal and the planned extension to Upton Country Park will address much of the existing deficiency. There is also potential to enhance existing provision along the coast, to maximise the role of the coast in providing open space and access to nature. There is also potential to increase the number of visitors to Wareham Forest, and the creation of the Upton to Wareham Cycle Route will support this.

Locals enjoy access to nature in Upton Country Park, Poole

12.10. At a local level, authorities should aim to identify sites within the conurbation where there is potential to create new green space. It may not always be feasible to deliver green spaces within the urban area which are 2ha or more in size, but urban green space should certainly meet local quality standards.

COASTAL ENHANCEMENT

12.11. There is an opportunity to better celebrate South East Dorset's special and valued coastline. The seafront area is already is a major tourist draw in high season, however there is potential to promote the wider coast to local residents as a year-round location for recreation and access to nature. Effective promotion of this opportunity could contribute to reducing recreational pressure on the Dorset Heaths.

- Improve the public realm and environmental quality along the coast, to support the vital tourism sector and to improve the quality of life for residents.
- The seafront area receives millions of visits every year, and there is potential for the promenade and surrounding area to be a platform for the promotion low-carbon lifestyles. This could include features such as high quality cycle access and facilities, incorporation of green infrastructure features in built development, such as green roofs, green walls and sustainable drainage systems, and small-scale community food-growing demonstrations, as well as renewable energy and low energy infrastructure. These features should be supported by educational interpretation.
- Provide seafront interpretation of the natural environment. The coastal zone contains a range of BAP habitats including heath, maritime cliff and slope and woodland. Attempts to utilise these areas as wildlife attractions, for example, by the RSPB at Arne and the Dorset Wildlife Trust at Brownsea Island could be replicated on a smaller scale elsewhere along the coastal zone.
- The coastal zone is also an area for promotion of the diverse geological heritage of the area including several geological SSSIs such as Poole Bay Cliffs SSSI and Studland Cliffs SSSI.

12.12. Measures to protect and enhance the coast should take a long-term approach, to ensure the provision of high quality facilities for residents and visitors alike, and for future generations.

Dorset's unique coastal character should be celebrated through future green infrastructure investment

GATEWAYS TO THE DORSET COAST

12.13. Provide sustainable transport links to the coast, supported by high quality interpretation and art installations where appropriate to enable residents and visitors to enjoy the seafront without using their car.

- Provide highly visible and attractive signposting from rail stations to coastal public access points, enabling visitors to walk or bike easily to the seafront.
- Enhance and join up the existing network of attractive walking and cycle routes, with signposting and interpretation, joining up urban areas with the coast.

WOODLAND RESTORATION

12.14. The woodland restoration zone identified on **Figure 12.1** corresponds largely with the Strategic Nature Area for woodland restoration identified on the South West Nature Map. Opportunities to expand woodland across this area, should be sought in association with opportunities for strengthening and restoring historic landscape character and protection of key woodland BAP species.

- Protect ancient woodland (shown in **Figures 3.2** and **10.1**), and aim to link currently fragmented sites with additional woodland planting or possibly natural regeneration where appropriate.
- Woodland restoration should promote a range of woodland habitats including closed canopy, wood pasture and parkland. This might be combined with low intensity conservation grazing system using traditional breed cattle, for example, on low grade agricultural land, and in conjunction with HLS funding
- Investigate the economic and environmental viability of actively managing some of the sub-region's woodland for sustainable timber or wood fuel harvesting.

LOWLAND HEATH AND CHALK DOWNLAND RESTORATION

12.15. Based upon the Strategic Nature Areas identified by Biodiversity South West, broad opportunities for the restoration of natural habitats have been identified in South East Dorset.

- Support the landscape-scale enhancement of lowland heath and chalk downland habitats as identified by South West Nature Map
- Utilise uptake of HLS funding to further protect, buffer and extend core areas of lowland heathland and chalk grassland.
- Remain engaged with local stakeholders to protect designated heathland and to investigate the feasibility of restoring historic heathland sites.

FLOODPLAIN HABITAT RESTORATION

12.16. The river valleys that characterise the Study Area (for example, the Frome, Piddle, Avon, Allen and Stour) offer opportunities for expansion and enhancement of a wide range of wetland habitats. The following opportunities have been informed by Strategic Nature Areas from the South West Nature Map:

- The primary opportunity identified by the South West Nature Map is for enhancement of coastal and floodplain grazing marsh along the River Valleys of the Frome, Piddle, the Allen, and Avon valleys. The conservation of this habitat type in large part determined by the availability of suitable conservation grazing systems. Opportunities for restoration of this habitat need to be developed in association with appropriate funding mechanisms to facilitate this, such as HLS funding or through partnership funding such as the Dorset Urban Heaths Grazing Partnership funded by local authorities, Natural England and lottery sources.

- *Coastal and Floodplain Grazing Marsh* is a primary habitat identified by the South West Nature Map for restoration and enhancement in South East Dorset. However, stretches of river valley provide opportunities for restoration and enhancement of a full range of wetland habitat types. The South West Nature Map also identifies the habitat types in the sub-region: fen, wet woodland, purple moor-grass and rush pasture and river corridor habitats such as gravel bars, sand banks, cut-off meanders and river backwaters etc. Opportunities for enhancement of these habitats will be guided by the availability of funding and appropriate management.

- There is also a need to protect and expand reedbeds in the Poole Harbour fringe, to provide increased coastal flood attenuation. The sub-regional partners should work with the Environment Agency to identify suitable areas of natural flood defence and managed realignment.

FLOOD ATTENUATION

12.17. **Figure 12.1** identifies opportunities for flood attenuation in the Avon and along Stour valleys, to reduce the risk of flooding to the urban conurbation downstream. Measures to support flood attenuation include:

- Bank-side flood attenuation storage as promoted by the Environment Agency to be considered as a supplement during low flow periods.

- Investigate the flood risk management opportunities related to floodplain woodland planting. Re-establish broadleaved woodland adjoining water courses to improve recharge of the aquifer

- Restoration of habitat for waterfowl and waders associated with floodplain habitats is a key biodiversity objective for the sub-region and is targeted both by HLS funding and the Dorset BAP. Flood attenuation schemes should consider the need to maintain appropriate water levels (for example, on floodplain grazing marshes) at key times of year to not only benefit these species but also local fish populations and fishery interests.

12.18. In addition to these important opportunities for flood attenuation, there are opportunities to mitigate flood risk in urban areas through the use of sustainable drainage systems (discussed under 'Urban Greening Zone', above).

HERITAGE OPPORTUNITIES

12.19. The landscape setting of historic features may also provide GI functions, such as recreation, flood attenuation, or biodiversity.

- Work with heritage stakeholders and landowners (such as the National Trust) to incorporate multiple functions into landscape settings, where suitable.

- Aim to link strategic heritage assets, such as the Kingston Lacy estate or Hengistbury Head, with walking and cycling routes. This could be promoted though recreational routes providing information on the surrounding landscape. Innovative methods of disseminating route information and interpretation, such as internet download, could be considered.

THE STOUR VALLEY

12.20. The Stour Valley offers an opportunity to develop a flagship project, which would energise and publicise the unique natural beauty of the area, encourage access to nature and act as an exemplar of sustainable land management. The Stour Valley would act as a regional recreational resource. **Figure 12.2** illustrates proposed opportunities to create a coherent regional park along the Stour Valley. The opportunities identified in the Stour Valley centre on three key issues:

- Provide attractive, sustainable access to and along the Stour, supported by visitor facilities, such as toilets, interpretation and bicycle parking;
- Enhance the biodiversity and landscape of the river valley;
- Promote sustainable land use including traditional grazing, natural flood attenuation and sustainable food production.

12.21. A detailed description of opportunities and recommended priorities is set out below.

Access

12.22. Sustainable access to the Stour Valley, especially from the conurbation, should be a top priority. Investment should be sought for the design and management of viable public transport, bicycle, and pedestrian routes to gateway points along the Stour Valley. Given existing car usage, expected growth, and environmental aspirations, the opportunity to reduce car dependency should be prioritised.

12.23. The distance from the beachfront at Bournemouth to the River Stour at West Parley, using main roads, is approximately 4 miles, which would take approximately 25 minutes travel time by bicycle (depending on fitness level, traffic lights, etc.). The provision of an efficient cycle route from the urban conurbation to the Stour Valley, therefore, would provide a feasible option for some people. It would also have the added benefit of linking central Poole/Bournemouth with outer urban areas.

12.24. However, the majority of the population is not likely to travel to the Stour by such a route (due to mobility, safety, or fitness, for example). Therefore, affordable and efficient bus transport is crucial in providing sustainable transport options to the Stour Valley.

Access to the Stour

12.25. The aspiration to draw more visitors to the Stour Valley could have adverse impacts on sub-regional traffic congestion if measures are not taken to provide viable and attractive sustainable routes to the Valley.

- Discussions should be held between local Highways departments and other transport stakeholders to explore the estimated cost and preferred route for an efficient (on or off-road) cycle route from the urban conurbation to gateway points along the Stour.
- Existing public rights of way and publicly accessibly trails should be linked to the urban and rural road network surrounding the Stour.

- The issue of car parking at the Dorset Heaths sites and the River Stour should be addressed in tandem, as car parking at the Heaths will need to be reduced or discouraged in parallel to car access to the Stour being enhanced in order to attract residents to the Stour Valley.

12.26. Consideration should be given to how users of the Stour Valley would be able to cross some of the major roads that dissect it, e.g.: New Road, Ringwood Road, Stour Road, and the A338 Spur Road.

- Opportunities for additional cycle and pedestrian routes across the Stour are worth pursuing. The private bridge to the east of Pig Shoot Lane may provide an opportunity for access, for example.
- There are existing proposals for a cycle lane alongside the A338 Spur Road across the Stour at Blackwater.
- Consideration is being given to the provision of Park and Ride facilities near New Road, probably adjacent to the sewage works; on the Castle Lane relief road; and at Riverside.[107]

Access along the Stour

12.27. There is scope and support for providing continuous off-road pedestrian and bicycle access along the Stour Valley Way, through upgrading the route from footpath to a multi-user route or bridleway. This will provide a regional-scale recreational asset, valued for its length, its tranquillity, and its journey through countryside, riparian, and coastal landscapes. Importantly, however, it will also help to develop a more powerful image for the Stour Valley, broadening people's perceptions to imagine a special and coherent riverside parkway rather than segments of footpaths along the river.

The Stour Valley offers an attractive, peaceful environment for a range of recreational pursuits.

[107] Emerging proposals as discussed with Bournemouth Borough Council, in its capacity as a member of the SED GI Steering Group.

Gateways to the Stour

12.28. **Figure 12.2** illustrates five proposed gateways to the Stour Valley. The gateways are envisaged to provide better defined and more visible and accessible entry to the park, and to act as focal points for activity and engagement.

12.29. All gateways should provide bicycle parking and interpretation signage. Where feasible, some gateways should also provide visitors centres (whether small or large) with educational attractions, toilets, and a food/drink kiosk. Gateways could also provide educational resources, bicycle or boat hire, boat mooring, fishing equipment, picnic tables, etc, and could act as meeting points for walking or touring groups. Ideally, bus services should be encouraged to stop at gateways, or if not then a bus stop should be in existence a short walk (300-400 metres) away. Gateways could also be start/finish points for circular routes, attractive to dog walkers, for example.

Gateway 1 – Christchurch

12.30. The mouth of the Stour River will act as an important gateway to and destination within the Stour Valley. A gateway in this area may be best suited to signage and interpretation rather than built facilities, given the many existing resources in this vibrant area, and potential constraints of land ownership. Nonetheless, the gateway has the opportunity to be a landmark along the Stour Valley Way, and should provide a clearly identifiable and celebratory entry point. An important element of the Christchurch gateway should be a connection to Hengistbury Head, which provides a coastal endpoint to the Stour and is a major tourist attraction in its own right. There is an existing foot passenger ferry service linking the Stour (at Tuckton Tea Gardens and at Wick Lane) to Hengistbury Head. Opportunities to improve pedestrian and cycle access from Christchurch rail station to the Stour should be prioritised. Ideally, a gateway at Christchurch would be located within walking distance of Christchurch rail station. The gateway could also be sited to make use of existing ferry docks and bridge crossings, to support multi-modal access.

Gateways 2 & 3 – Throop / Hurn

12.31 Throop has an existing public access point and small parking lot, the disused Throop Flour Mill, a river crossing, and intersects the Stour Valley Way. The site also offers some leisure ground suitable for picnicking, for example, and is adjacent to a proposed Open Area (see Recreation, below). Access and parking at this gateway should be managed so as not to impact the tranquillity of the site. The disused mill provides an opportunity to develop a visitor centre and other facilities. Nearby Throop, there are proposals by Bournemouth Borough Council to establish a demonstration farm (Hick's Farm, Throop) an Education Centre at Stour Acres Barn off of Muscliffe Lane, and to provide an additional crossing of the Stour at Pig Shoot Lane (near Hurn), both of which would complement objectives for the Stour Valley Park. The delivery of this gateway should be linked to the Dorset County Council/Sustrans Connect2 project focussing on access to Bournemouth Airport.

Gateway 4 – Muscliffe

12.32 Bournemouth Borough Council has plans to develop an Education Centre at Stour Acres Barn, off Muscliffe Lane, which will be linked to the proposed demonstration farm nearby at Throop. This site would act as a Gateway to the Stour, with an interpretation centre and staff on site to provide guidance and information. The Council are also planning to provide a café at this site, which will form an important entrance point for visitors coming from the conurbation to the south of the Stour.

Gateway 5 – Longham

12.33. Longham is well placed to provide strategic access to the Stour for neighbouring urban communities north and south of the river (West Parley and Bear Cross/Kinson), and could be a key access point for much of Poole and Bournemouth. Longham also has an important wetland habitat and bird-watching opportunities, and has been proposed for open water and wetland mosaic habitat restoration. Priorities include improving access to the Stour Valley Way, to provide landscape screening along this route, and to develop an open area for informal recreation / picnicking have been proposed to support the development of a high quality access point to this central area of the Stour Valley.

Gateway 6 – Wimborne Minster

12.34. Wimborne Minster is well placed to provide high quality cultural and leisure facilities along the Stour Valley. Within Wimborne, access to the Stour Valley Way is subtly signposted and entry points are not always visible; a gateway would need to significantly improve upon the visibility of access to the river pathway. As a larger settlement, improving public transport access to this gateway may be more viable than remoter locations, while an existing pay-parking lot could serve Stour Valley visitors. Wimborne may also be attractive as an accommodation stop-over for long distance walkers. Additionally, the RSS Proposed Changes identifies an urban extension 'area of search' at Wimborne[108], which suggests the potential for an increased user base at this gateway.

Other Gateway Opportunities

In addition to these proposed gateways, there are several other opportunities for gateways along the Stour. For example, while just outside the study boundary, Blandford Forum offers a logical gateway to the Stour Valley, being one of the larger settlements in the area, and providing existing leisure and recreational resources and partners with which to work. The Stour Valley Canoe Club is based in Blandford, for example, and makes regular use of the Stour for their expeditions.

Habitat enhancement and biodiversity

12.35. The South West Nature Map does not identify specific habitats for restoration along this section of the Stour Valley. However, based on expert input and our understanding of the local ecology, targets for habitat restoration should include floodplain grazing marsh, reedbeds, wet woodland and in-stream river corridor habitats. Flagship species to increase the visitor appeal and promote conservation might include otter *Lutra lutra*, water vole *Arvicola terrestris*, kingfisher *Alcedo atthis* or possibly lapwing *Vanellus vanellus*.

Potential of Stour Valley as a Suitable Alternative Natural Greenspace (SANGS)

12.36. If the Stour Valley is to perform an eventual SANGS function, consideration should be given to creative conservation approaches and creating a landscape offering a similar natural and wild feel to the large heathland sites which are currently favoured for recreation sites. For example, this could be achieved using a 'landscape scale' or re-wilding[109] approach, where large grazing animals are used to manage a mosaic of woodland, semi-improved grassland, scrub and grazing marsh habitats complete with small scale wetland habitat features such as wetland scrapes and ponds. This approach may be appropriate if large enough tracks of land and buy-in from neighbouring land owners could be secured.

---

[108] p.102, Draft Revised Regional Spatial Strategy for the South West Incorporating the Secretary of State's Proposed Changes. Government Office for the South West (July 2008).

[109] The Wildlife Trusts (2007). *A living landscape: A call to restore the UK's battered ecosystems, for wildlife and people*. TWT

Interpretation

12.37. The provision of interpretation facilities and signage along the Stour will be a key element in enhancing the river as a well-recognised recreational resource.

- Provide visible, graphically-coherent informational signage at all the gateways and at other points of interest along the Stour, such as special habitats, viewpoints, or heritage assets.
- Investigate the feasibility of providing an environmentally sensitive visitor facility along the Stour, such as at Throop, to provide educational interpretation for adults and children.
- Look into technological solutions to on-site interpretation, including internet downloads and mobile audio information handsets.
- Consider opportunities to work with the development of the proposed demonstration farm and countryside visitor centre at Hick's Farm, Throop to include interpretation of the Stour Valley. For example, the farm could act as a meeting point for guided walks of the Stour.
- Collaborate with emerging plans to develop an interpretation centre and café in the Council-owned Muscliffe Barn along the Stour
- Collaborate with measures underway to develop the Council-owned barn at Hengistbury Head into an interpretation centre – the Hengistbury Head Centre. Bournemouth Borough Council have secured Heritage Lottery Funding in place for its development.
- In consultation with existing users, provide access links to and interpretation of Longham Lakes, a bird-watching wetland south of Ferndown.

Recreation

12.38. A major impetus in developing the Stour Valley as a recreational resource is to relieve pressure on the environmentally sensitive Dorset Heaths. As such, the Stour Valley must aim to provide extensive, high quality recreational opportunities along its length to provide an attractive alternative to the Heaths.

- Secure a continuous off-road route for walkers and cyclists along the length of the Stour within the sub-region.
- Provide bike parking at numerous and strategic locations along the Stour.
- Create a number of circular walking/cycle routes, especially starting from Gateway points, suitable for one or two hour excursions.
- Investigate opportunities to provide open areas along the Stour suitable for picnicking, etc. Open areas near Stour Valley Gateways may be particularly suitable.
- Provide access links to Longham Lakes, south of Ferndown, for bird watching opportunities.
- Provide increased angling opportunity on the River Stour through associated habitat enhancement works and increased access to the riverbank and associated lakes.

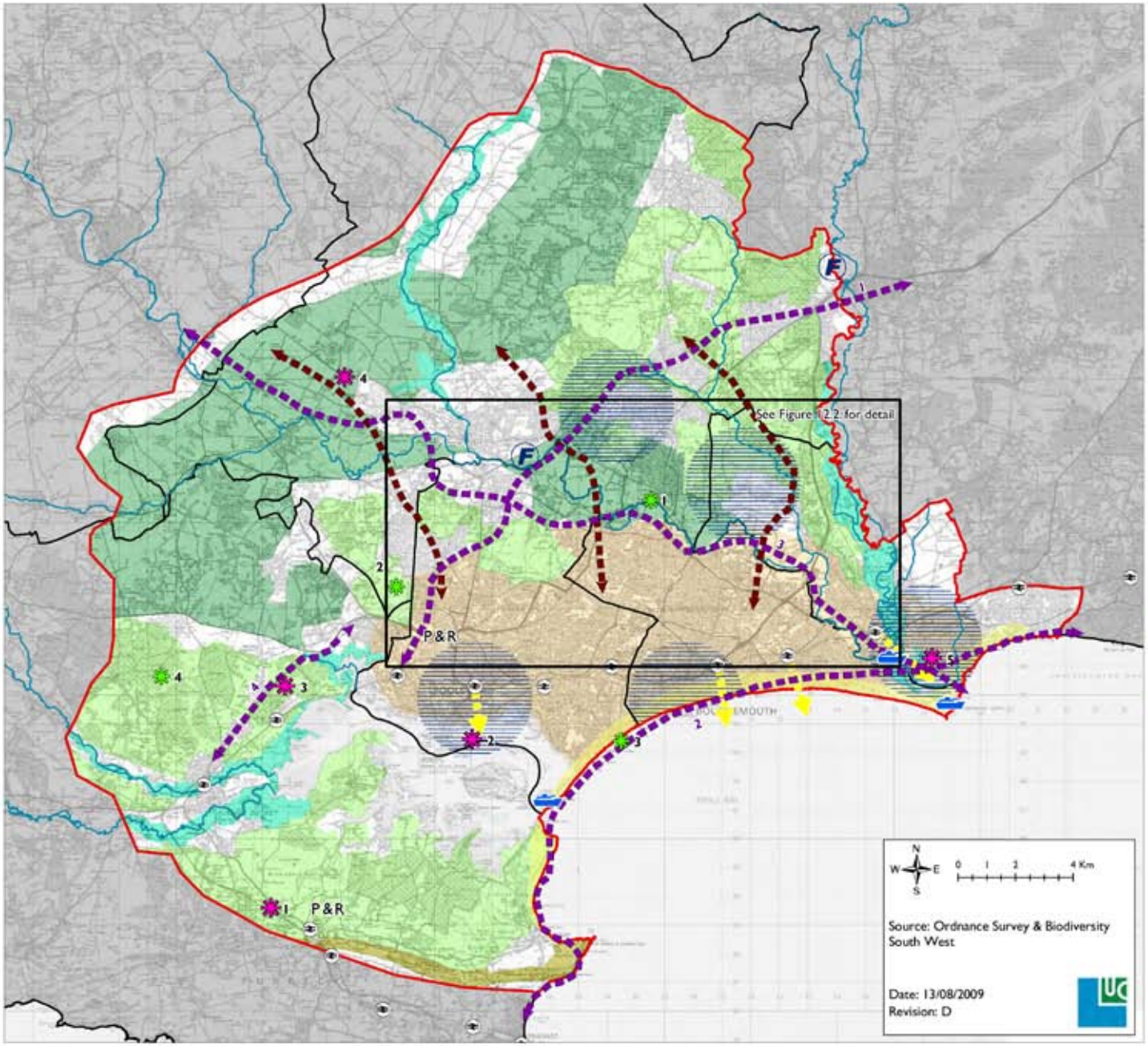
12.39. Promote environmentally sensitive water sports along the river.

- Enable wild swim spots along the river. Work with partners such as Natural England who are promoting 'blue gyms' in Dorset.

- Consult with local stakeholders, such as local Angling Clubs and the Stour Valley Canoe Club, to ensure their needs will be met (such as the provision of facilities for fishing, boat mooring, etc.)
- Support proposals for commercial water sports vendors near to the river, such as boat hire or fishing expeditions.

12.40. Investigate the feasibility of providing a built visitor facility along the Stour, providing educational and recreational resources.

- Consult with local recreational and environmental stakeholders to incorporate their input into the design of such a facility.
- A visitor facility could provide maps, educational events geared to both adults and children, demonstrations (such as water quality monitoring), and other interpretation facilities.
- A visitor facility should provide washrooms if feasible. It could also include covered bike parking, a food/drink kiosk, and could hire out boating or fishing equipment, etc.



South East Dorset Green Infrastructure Framework

Figure 12.1: Green infrastructure opportunities

Key

- Study area
- Local authority boundaries
- Rivers
- Potential flood attenuation area
- Healthy sustainable travel and Urban Greening Zone
- Improved Cycle Commuting Infrastructure
- Coastal Enhancement Zone

Existing transport infrastructure

- Ferry
- P&R Park and Ride
- Railway station

Ecology & Biodiversity

- Woodland Restoration Zone
- Lowland Heath Restoration Zone
- Coastal and Floodplain Grazing Marsh Restoration Zone
- Chalk Downland Restoration Zone

Strategic access routes

- 1. Castleman Trailway
- 2. Dorset Coast
- 3. Stour Valley
- 4. Wareham to Upton Cycleway
- Enhance off road links between urban and rural areas
- Gateway to the Dorset Coast

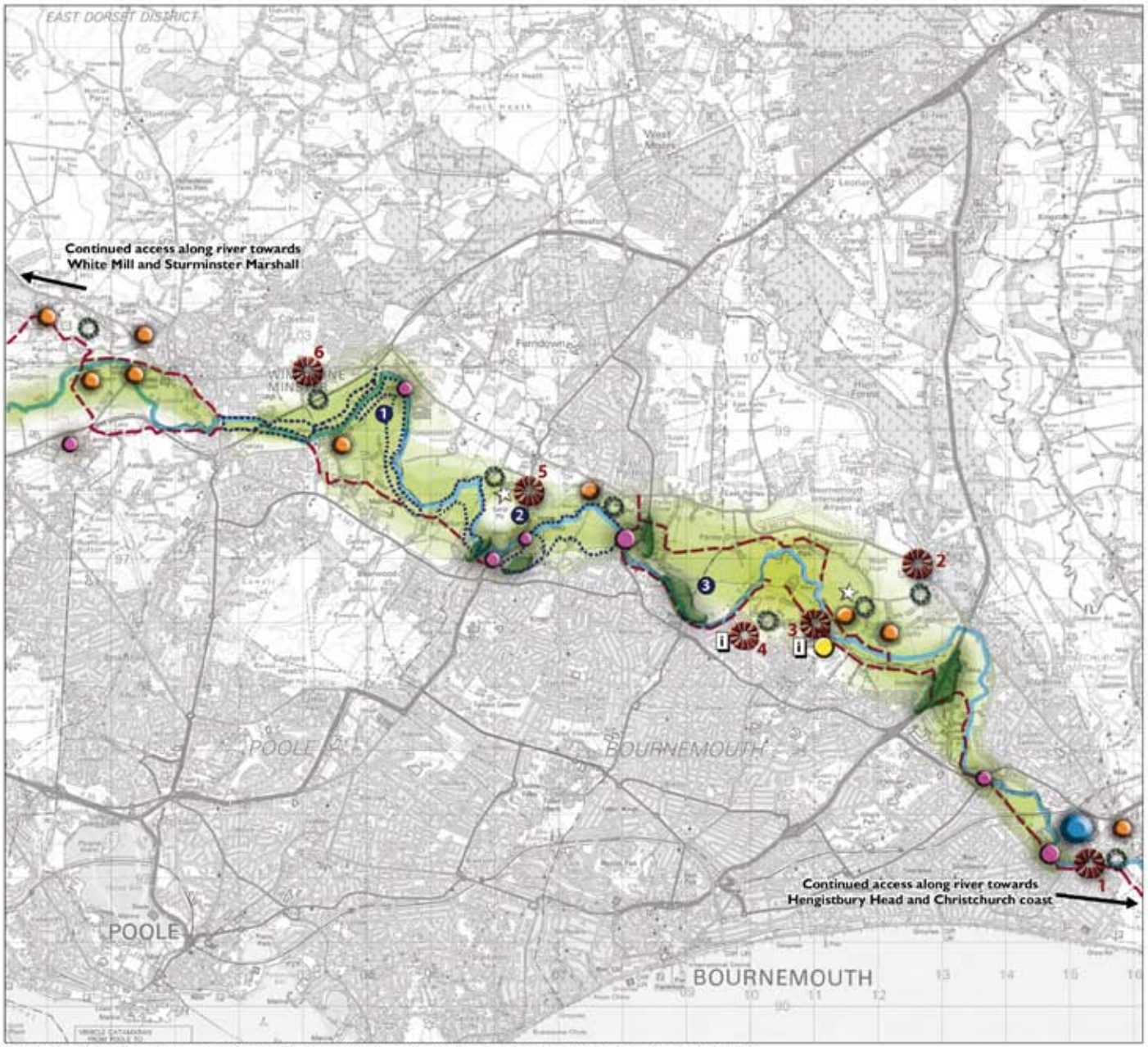
Heritage Opportunities

- 1. Swanage Railway
- 2. Poole Harbour
- 3. Holton Heath
- 4. Badbury Rings and Kingston Lacy
- 5. Christchurch & Hengistbury Head

Strategic Greenspace Creation & Enhancement

- 1. Stour Valley Regional Park
- 2. Upton Country Park
- 3. Seafront and Chines
- 4. Wareham Forest

File: S:\1460\14641 South East Dorset Green Infrastructure Study\GIS\Themes\ArcGIS\14641-01_049_GI_Map_A3_RevD.mxd



South East Dorset Green Infrastructure Framework

Figure 12.2: Stour Valley Regional Park

Key

- Opportunity area for Stour Valley Park
- Landscape enhancement/ screening
- Opportunity for Watersports (Christchurch)
- Priority for access improvements on 'Stour Valley Way'
- Key heritage features
- Rural education centre at Hick's Farm
- Signposting and interpretation
- Gateways into the Stour Valley
- Informal picnic area
- Information centre
- River Stour
- Cycle access (Stour Valley Way)
- Footpaths

Biodiversity Enhancement

1. Woodland creation
2. Open water and wetland mosaic
3. Floodplain woodland and wetland

N W E S 0 0.5 1 2 Km

Source: Ordnance Survey

Date: 20/08/2009
Revision: B

File: S:\4600\4641 South East Dorset Green Infrastructure Study\GIS\Themes\ArcGIS\4641-01_057_Stour_Valley_GI.mxd

13. RECOMMENDATIONS FOR NEXT STEPS

INTRODUCTION

13.1. Effective interpretation of the objectives and aspirations for South East Dorset's green infrastructure will be fundamental to ensuring successful delivery. In this section we provide recommendations on how green infrastructure should be incorporated into policy by the partner authorities.

A GI STRATEGY FOR SOUTH EAST DORSET

13.2. To build on the GI Framework, a GI Strategy should be developed to outline the prioritisation of investment and delivery of GI opportunities. Detailed recommendations on the structure and scope of the GI Strategy are outside the scope of this study, however, some key areas for further consideration include:

- Prioritise GI opportunities for delivery
- Identify key delivery partners for each priority
- Consider funding options, including both capital and revenue funding
- Define GI Tariff
- Agree approach to governance to sustain partnership-led implementation
- Develop a timeframe to ensure GI projects are planned and delivered alongside development
- The strategy should be supported by an action plan, which prioritises cross-boundary projects for investment with timescales and key delivery partners.

13.3. During the Visioning Workshop with the project steering group (May 2009), CABE Space raised the importance of being proactive in providing positive information on progress and inputs to the project. The need for further consultation with a broader range of stakeholders was also raised – notably, those affected by but less engaged with GI issues. Therefore, the GI Strategy should be developed alongside consultation with a broad range of stakeholders and local communities. Further consultation exercises should build on the helpful input already provided by stakeholders during the June 2009 workshop; a list of organisations represented at this workshop is provided in **Appendix 4**.

LOCAL DEVELOPMENT FRAMEWORKS

Core Strategy

13.4. It will be important to interpret the sub-regional GI strategy into the various relevant Local Development Frameworks (Bournemouth, Christchurch, East Dorset, Poole and Purbeck). Green Infrastructure should be referenced in the Core Strategy through a bespoke green infrastructure policy. This policy should reflect the key objectives of the strategy, which reflect the functions and benefits of green infrastructure. It would be beneficial to refer to the spatial GI opportunities map and areas of deficiency in this policy. The policy should also make reference to the Green Infrastructure Tariff, if one is introduced, as discussed further below.

13.5. The Core Strategy policy might make reference to the GI opportunity areas identified through this framework study (such as the Stour Valley), or the local authority may wish to produce a detailed framework, building on the broad opportunities identified at the sub-regional level. The role of GI in delivering other policy priorities should also be incorporated into relevant policies, such as nature conservation, health and climate change, and reference should be made to the GI opportunities map and deficiency areas as appropriate.

13.6. The RSS Proposed Changes states that GI provision must be based on a sound understanding of GI assets, including location, size, functions, accessibility, user groups, and intensity of use[110]. The South East Dorset GI Framework has helped to identify the location and size of existing assets, as well as to identify existing issues and specific functional and spatial opportunities. Information on the accessibility and use of existing sites may be sourced from local authority open space studies. There may be a need for additional research at a local level in relation to GI functions of existing sites, and priorities for investment to deliver a greater range of green infrastructure functions.

Development Plan Documents

13.7. Where a LDF document allocates land, it should be adopted as a DPD. The GI Strategy and/or local authority studies which take forward the strategy will allocate specific areas of land for green infrastructure provision. These areas should inform the Site Allocations DPD, which will allocate land for a range of uses. An example of this may be defining land which will be managed as the Stour Valley . It is not necessary to adopt a green infrastructure plan as a DPD, as the plan tends to identify opportunity areas and principles for management of land, rather than specific site allocations. This GI Study will form part of the evidence base to inform DPDs.

EXAMPLES OF GI POLICY

An example of GI policy within a Core Strategy (Preferred Options) is provided below:

Luton and South Bedfordshire Green Infrastructure Policy

To maintain, enhance and deliver new green infrastructure, including green open space at appropriate scales throughout the Growth Area by:

- Seeking a net gain in Green Infrastructure and Green Space through the protection and enhancement of existing and the provision of new green infrastructure assets as set out in the GI Plans and Green Space Strategy across the Growth Area in particular Dunstable, Leighton Linslade and in the preferred emerging sustainable urban extensions;
- Taking forward the priority areas identified in the Bedfordshire and Luton Strategic GI Plan for the enhancement and provision of green infrastructure in the Ouzel River Corridor, Chalk Arc Corridor, Leighton Linslade to Dunstable Corridor and Upper Lea River Valley Corridor; and
- Requiring new development, in particular the preferred emerging sustainable urban extensions, to contribute towards the delivery of new green infrastructure and the management of a connected network of new and enhanced open spaces and corridors in accordance with the Green Space Strategy standards.

Supplementary Planning Documents

13.8. To support the GI policy in the core strategy, and the GI sites identified in the Site Allocations DPD, an SPD on green infrastructure can be adopted. The purpose of the SPD should be to inform the planning, design and management of green infrastructure, by outlining the key principles which should be followed. Detailed information on the approach to developer contributions or the Green Infrastructure Tariff should also be included in the SPD.

[110] para.6.2.18, *Draft Revised Regional Spatial Strategy for the South West Incorporating the Secretary of State's Proposed Changed – for public consultation July 2008.*

PPS 12 requires that SPDs must be consistent with national and regional planning policies as well as the policies set out in the DPDs, and conform to the statement of community involvement; however, they are not subject to the Test of Soundness.

Within South East Dorset, it may be appropriate to produce such a document in partnership, and adopt it as a joint SPD. This SPD could build on the opportunities identified in this GI Framework.

GREEN INFRASTRUCTURE TARIFF

13.9. The steering group will need to explore a variety of delivery mechanisms for GI. The scope for a tariff or contribution to fund deficiencies in provision, which could be adopted by partner local authorities, will be assessed. It is recommended that any tariff is referenced in the Core Strategy policy, and that the SPD provides guidance e.g. on how contributions are calculated and where the funding will be invested. It may also be useful to outline what scale developments will be expected to incorporate green infrastructure within the development footprint, how much GI will be required (reflecting the open space provision standards), and what other green infrastructure should support the development, such as SuDS, food growing areas or climate management elements. Depending on the preference of the local authorities, it may be more appropriate to have a bespoke GI tariff, or for contributions to be gathered through a Community Infrastructure Levy approach, where the amount of GI funding would be calculated to inform the CIL.

SOUTH EAST DORSET MULTI-AREA AGREEMENT

13.10. The South East Dorset local authorities have already been proactive in developing a Multi Area Agreement (MAA) for the sub-region. The South East Dorset MAA goes some way to recognising the potential of GI in the region. In particular, it notes the need for "strategic green infrastructure to accommodate the demand for recreation arising from the Regional Spatial Strategy proposals to focus housing growth". GI has potential to contribute to achieving a range of targets set out in the MAA. The Board of the MAA has agreed that the concept of the 'Green Knowledge Economy' is endorsed as a key driver of the work for the MAA. The concept of Green Knowledge Economy suggests that the environment should be a driver of economic development in the sub-region. The next stage of developing the concept is the production of a strategy and action plan which recognises the potential of the Stour Valley and green infrastructure generally to contribute to a sustainable local economy. The South East Dorset partners should engage with the Local Strategic Partnerships to promote the numerous benefits of green infrastructure, in order to secure increased investment.

Land Use Consultants, February 2010

APPENDIX I

Local policies relevant to the green infrastructure

Appendix 1: Adopted and emerging local GI policies. Emerging plans are shaded in gray.

Borough/ District	Plan	Policy	Description
East Dorset	Local Plan (January 2002)	Policy HODEV2	Retain existing green spaces and recreational open spaces in new housing development.
		Policy RCDEV2	New housing must provide children's play and outdoor sport facilities according to standards set out in the Plan.
		Policy RCDEV3	Sets out the requirements for off-site provision of open space or compensatory sum from developers.
		Appendix C	Specifies standards for open space provision.
Joint	Christchurch and East Dorset Core Strategy Issues and Options (March 2008)	Theme 13: Improving sport and leisure facilities	Sets out three issues for discussion: • Is it preferable for developers to provide financial contributions to improve existing facilities, or to provide further land? • How can policy ensure children can play close to their home without increasing noise disturbance to neighbours? • Management of open spaces can be costly for local communities.
Christchurch	Christchurch Local Plan (2001) – saved policies.	Policies L1-L3	Resist the loss of public and open spaces, playing fields, and private sports grounds.
		Policies L17	Protect public access to undeveloped riversides.
		Policy L20	Sets out requirement for 2.4ha recreational open space provision per 1,000 population in new housing developments.
		Policy CF6	Resists the loss of allotment sites.
		Various	Several policies in the Leisure and Community Needs section designate specific land for open spaces, or secure the open character and accessibility of existing open spaces.
Bournemouth	District Wide Local Plan (Feb 2002) – saved policies	Policy 7.10	Support for the development or expansion of indoor and outdoor recreational facilities.
		Policy 7.14	Commitment to create a continuous Stour Valley footpath.
		Policy 7.15	Promotes the establishment of a Country Park at Kinson, in the Stour Valley.
		Policy 7.17 and 7.19	Resist development resulting in the loss of public or private open spaces, or school playing fields.
		Policy 7.20	Opposes development on allotment sites.
		Policy 7.21	Requirements for provision of open space in new residential development, and local provision standards.

Borough/ District	Plan	Policy	Description
Joint	Bournemouth, Dorset & Poole Structure Plan (2001) – saved policies	Com. Facilities Policy A	Directs development of major sport and recreation facilities to the Bournemouth-Poole conurbation and main towns.
		Com. Facilities Policy B	Supports the retention and improvement of existing sport and recreation facilities.
		Com. Facilities Policy C	Support for the development of countryside recreational facilities compatible with rural character, and to relive recreational and tourism pressure on sensitive sites.
Poole	Local Plan (2004) – saved policies *These will variously be replaced by Site Specific Allocations and the Dorset Heathlands DPD.*	NE30	Requires development to respect the network of urban green space and open spaces and the links between them, and encourages development proposals to include measures to expand this network.
		L1, L2, L5	Resists the loss of public open space, urban green space, and playing fields.
		L9	Supports the development of new public or private recreational facilities.
		L10	Requires development sites with a harbour frontage to allow for public access to the shore.
		L14	Requires development proposals to include public footpath/cycleways/bridalway links where these would provide improved access and links to open spaces and extensions to the countryside routes.
		L17	Sets out the Council's open space standards.
	Core Strategy (May 2009)	PCS23, PCS26	Aims to protect local distinctiveness, including by the retention of trees and woodlands, and ensuring development does not have a detrimental impact upon the character of parks or other open spaces.
		PCS28	Establishes a 5km buffer around the Dorset Heaths, within which development is expect to avoid or mitigate adverse impacts on the site's integrity, including by providing open space and recreational facilities to deflect pressure from heathlands.

Borough/ District	Plan	Policy	Description
Purbeck	Local Plan: Final Edition	QL 3a	Permits development in the heathland zone, provided it includes measures to extend existing heathlands or link fragments of heathland, and is in accordance with other heathland-related policies.
		QL 27, MN 13	Resists the loss of amenity open space within settlements, and important areas of recreational open space.
		QL 31	Encourages the retention of on-site features of nature conservation or amenity value.
		MN 14	Sets out the Council's open space provision standards.
		MN 15	Resists the loss of allotments.
	Core Strategy Preferred Options (Sep 2006)	PO25	Requires residential development to be supported by an adequate quantity, quality, and accessibility of open space and recreation facilities.
		PO 69	Sets out intention of Council to use planning obligations to secure on-site open space and recreational facilities, or a financial contribution to such facilities.

APPENDIX 2

Framework Methodology

SOUTH EAST DORSET FRAMEWORK METHODOLOGY

13.12. The methodology used in developing the South East Dorset Green Infrastructure Framework centred on a three-stage process, summarized in the table below.

Tasks	Outputs /meetings
Stage 1: Data Review and Characterisation	
Task 1: Review existing and emerging green space audits, and other relevant plans	
Task 2: Define environmental character of South East Dorset, including identification of location of potential major developments	
Task 3: Targeted consultation with local experts and stakeholders	Project Meeting
Stage 2: Identify sub-regional GI deficiency standard and map GI deficiency	
Task 4: Review local PPG17 studies and define deficiency standard	
Task 5: Identify areas of potential future need considering new development and sensitivity of existing green spaces	
Stage 3: GI Options Development	
Task 6: Undertake targeted site surveys to identify potential SANGs	Site survey sheet and findings
Task 7: Develop, map and refine GI options	Mapped GI Network Options
Task 8: Prepare Report to Steering Group	Draft Report
	Project Meeting
Task 9: Finalise report incorporating comments from Steering Group	Final Report

STAGE 1: CHARACTERISATION OF THE STUDY AREA

Task 1: Review existing and emerging green space audits, and other relevant plans

13.13. The consultants undertook a desk-based review of current regional and local planning policy to understand the context in which the study would sit. This included a review of the following:

- South West RSS Proposed Changes and accompanying Sustainability Appraisal;
- The Habitat Regulations Assessment of the RSS Proposed Changes;
- South West Regional Flood Risk Assessment, plus any local assessments available;
- Local Plans and emerging LDFs, and any completed Appropriate Assessment work;
- The Dorset Heathland Interim Planning Framework and emerging Joint DPD;
- Evidence to support Appropriate Assessment of development plans and projects in South East Dorset (Footprint Ecology et al 2008);
- Relevant PPG17 studies and the Poole Growth Point Green Space Audit (LUC, 2009).

13.14. This review aimed to ensure that the study fully addressed the range of challenges and opportunities posed by the significant levels of proposed growth in the sub-region, and also identified the following type of information:

- The approach to green infrastructure as set out in current policy;
- Any standards for green infrastructure provision e.g. per head of population, or objectives for delivery of other green infrastructure functions e.g. restoration of functional flood plain;
- Existing green infrastructure projects and initiatives (especially potential links to initiatives in adjoining areas);
- Development proposed within emerging Local Development Frameworks, which will provide an understanding of pressures on green infrastructure and areas that may require additional green infrastructure;
- Stakeholders involved in delivery of green infrastructure in the region;
- Review function of existing green spaces in the sub-region.

Task 2: Define environmental character of South East Dorset, including identification of location of potential major developments

13.15. Using mapped data provided by the Steering Group, plus the documents listed above, a study was undertaken to define the character of the environment within South East Dorset. Data was presented on current green infrastructure provision, and the character of the area was presented in the form of a collection of themed maps that addressed the following elements:

- Ecology (e.g. protected sites, BAP habitats);
- Landscape character;
- Historic and cultural character (e.g. HLC, Scheduled Monuments, Listed Buildings, and conservation areas);
- Socio-economic factors (e.g. population density and distribution, Index of Multiple Deprivation, priority ranking of regeneration areas, health deprivation ranking, mortality rates for circulatory diseases, IMD ranking of living environment;
- Functional ecosystems character and flood risk (e.g. flood plain, river systems and catchments);
- Leisure and employment sites.

13.16. In order to understand where there is potential for provision of future green infrastructure (or green infrastructure enhancements), data was also collated on:

- Areas of derelict /disused land, local authority owned land and agricultural land.

13.17. This data did not automatically dictate where green infrastructure investment should take place, but was used to inform potential GI opportunities.

13.18. The significant levels of recommended growth in the sub-region mean that maximising the benefits of green infrastructure to the growing population is key to the success of a GI Strategy. Existing sites that have been allocated or identified for development and likely future options for development and urban extensions were also be reviewed, using data provided by the steering group. The uncertainty as to which sites will actually be taken forward and developed was taken into consideration when developing options.

Task 3: Targeted consultation with local experts and stakeholders

13.19. A stakeholder workshop was held in Bournemouth on June 11th 2009 to receive feedback and comments on the work to date, and to inform the creation of open space provision standards. Stakeholder's comments were included throughout the report, informed opportunities proposed in the GI Frameowork, and were summarised as an appendix to the report.

STAGE 2: IDENTIFY SUB-REGIONAL GI DEFICIENCY STANDARD AND MAP GI DEFICIENCY

Task 4: Review local PPG17 studies and define deficiency standard

13.20. This task involved a review of the local-derived PPG17 standards, alongside established national standards such as ANGSt and the TCPA green space standards. Consideration was also given to the effect of different standards on the future recreational use of the sensitive sites which comprise the Dorset Heaths. The need to discount the Natura 2000 sites in considering existing provision of accessible natural green space was taken into account in developing provision standards.

13.21. A range of standards was used to form a useful guideline for GI deficiency mapping, including Natural England's Accessible Natural Green Space Standards (ANGSt), and the Fields in Trust's (formerly the National Playing Fields Association) Six Acre Standard.

13.22. A combination of these established standards and stakeholder input was used to develop a provision standard for South East Dorset, recognising the importance of reflecting local need and the specific opportunities and constraints presented by individual sites, as well as taking into account population trajectories and proximity to existing green infrastructure.

Task 5: Identify areas of potential future need

13.23. The identified open space provision standard was applied to identify areas of deficiency in access to green space, both by including the sensitive Dorset Heaths sites and excluding these sites, to illustrate the varying deficiency in each case.

STAGE 3: GI OPTIONS DEVELOPMENT

Task 6: Undertake targeted site surveys to identify potential SANGs

13.24. In order to inform the identification of suitable GI opportunities, site visits were undertaken to inform the characterisation, deficiency analysis and expert consultation. The Stour Valley was a focus for site visits, given its recognised potential to provide new strategic accessible GI.

13.25. The heathland mitigation proposals identified in relevant strategies were recognised and used to inform sites with the potential to act as SANGs. LUC is familiar with strategies employed to mitigate the effect of housing growth on heathland Natura 2000 sites through research work for Natural England on the Thames Basin Heaths, Poole Growth Point Green Space Audit, ecological study of the proposed expansion at Bournemouth Airport and Cannock Chase Green Infrastructure Strategy.

13.26. In order to identify suitable mitigation projects to provide SANGs, potential sites were appraised against a set of bespoke criteria, including:

- Ownership

- Distance from Natura 2000 site
- Whether in area of green space deficiency
- Wildlife value
- Access potential
- Car parks
- Character of site
- Recreation potential

Task 7: Develop, map and refine GI options

13.27. The characterisation and deficiency analysis work was used to inform the development of options for the GI network. These options were mapped in terms of key existing green space, potential and need for new green spaces, the appropriate function of the new green spaces, and potential for enhanced or new multi-user paths to link these sites.

Task 8: Prepare Report to Steering Group

13.28. This draft report has been prepared for circulated to the project Steering Group for comments. The report outlines:

- Findings of the characterisation of South East Dorset, with supporting maps;
- The justification of the selected GI standard, its application and conclusions on deficiency across the sub-region (supported by maps);
- The mapped green infrastructure options, with some analysis of the strengths of the options in relation to the sensitive Natura 2000 sites.

13.29. The draft will be circulated to the Steering Group for comments.

Task 9: Finalise report incorporating comments from Steering Group

13.30. Steering group comments on the draft GI report will be incorporated as appropriate, and a final version of the report will be submitted.

APPENDIX 3

Summary of Comments from Stakeholder Workshop

COMMENTS RECEIVED DURING THE STAKEHOLDER CONSULTATION WORKSHOP

FIRST SESSION: GI OPPORTUNITIES

1. The purpose of the first discussion session was to encourage attendees to identify green infrastructure issues and opportunities in relation to the given theme. A summary of comments provided by each group is provided below.

Sustainable economic development and tourism

- The beach and sea should be considered an opportunity
- Movement across the urban conurbation to attract business and provide port links
- Attractive settings are important for new businesses
- An opportunity to link the coast and countryside
- Greenway spurs within the urban conurbation to urban extensions and employment sites
- Promote South East Dorset as a unique place both for tourism and business
- Provide green links to Purbeck for tourism – currently isolated.

Water management and climate adaptation

- In addition to the Catchment Flood Management Plans, Catchment Abstraction Management Plans should also be reviewed.
- Poole Housing Partnership is piloting a woodchip boiler at a housing estate, and there is potential to incorporate this into more housing development and existing residential buildings across the study area. If demand for wood fuel is created in the area, then private businesses will be encouraged to rent and manage forests sustainably to provide a supply. This has good potential for job creation in rural areas.
- Bank-side storage is one option for flood attenuation and storage, as recently delivered along the River Stour at Longham.
- Local authorities should retrofit SuDS in urban areas, as well as requiring their integration in new developments.
- Abstraction is affecting fisheries in the sub-region, and this should be addressed through more flood water storage to reduce abstraction pressure on groundwater. Bank-side storage would allow abstraction rates to be reduced.
- The Dorset Multi-Area Agreement Environment Programme provides a good opportunity to deliver GI opportunities, especially 'Green Recovery' (i.e. sustainable green technology benefiting economic recovery).
- A levy should be placed on new development in regard to flood attenuation and water management infrastructure.
- S.E. Dorset should develop a GI spatial framework and Masterplan to influence new development.

- Radical responses will be required to ensure sustainable future for S. E. Dorset.
- Desalination is not a sustainable option.
- Grey-water systems should be required in new development and retrofitted into existing development where possible.

Health and well-being, recreation and access

2. A top priority raised by this break-out group was to improve access to existing assets. This includes information and access infrastructure:

- Signposting and marketing/tourism information
- Better/extended paths, improved cycle/pedestrian access, and facilities such as refreshments and toilets.

3. Particular issues raised by this group include:

- Physical barriers: limited access across main roads and the Stour River
- Develop a bicycle borrow/hire network (similar to those in London, Paris and Toronto[111])
- There is incomplete information about access networks
- An older population in SED: poor public transport, car dependant
- Urban areas are not currently bike-friendly.
- There are financial constraints for investment in infrastructure
- Information needs to reflect the diversity of cultures, respond to wider inclusion
- There is a need for another large country park, similar to the Moors Valley model

4. Opportunities raised by the health and recreation group include:

- Provide guided walks/tours/event to build confidence of residents/visitors to use existing sites.
- Provide more/improved information about destinations & experiences.
- Improve links between existing public rights of way to generate a functional network.
- Enhance the Stour Valley and Castleman Trail as links to places, while also providing circular routes along them.
- Promote use of the coast, including for locals outside of peak tourist season
- Improve the 'welcome' and arrival to existing sites: signposting & facilities
- Improve the cycling culture in schools, provide safe routes to schools
- SusTrans is working on mapping access routes to open spaces; opportunity to use this information and/or collaborate with SusTrans.
- Link destinations with multi-modal transport hubs: facilitate access by bus, train, bicycle.

[111] Community bike lending program in Toronto: http://www.tc.gc.ca/Programs/Environment/utsp/bikeshare.htm

- Create voluntary/subsidised bus schemes to improve non-car access to remoter sites
- Golf courses in Poole & Bournemouth represent a huge land area catering to a small population. Scope to make these spaces more multi-functional.
- Improve the potential of existing open spaces by enhancing their multi-functions.
- The National Trust has dedicated some of its land near Wareham to the creation of allotments.

Landscape character and cultural heritage

5. The following issues were raised by the landscape and heritage group:

- Existing landscape & heritage assets are generally in good condition.
- Conifer plantations currently cover original heathland
- Fragmentation of townscape and landscape (wood/farmland/river/heath) is an issue. Fragmented of ancient and other woodlands was particularly drawn out.
- There are poor connections and access to cultural heritage assets
- Agricultural management of the rural landscape is an issue
- Loss of traditional landscape and townscape features such as hedgerows, trees, small copses and pasture in rural areas, and gardens in urban areas.
- Development pressure has led to loss of public open space, private gardens, and trees.
- Lack of views from public open space.
- The local authority structure has an impact on a coordinated approach to GI
- Poor quality of existing public open spaces
- The distance to spaces is key
- Sustainable access should be provided for: bike, foot, train, bus.
- Quality is important, not just quantity. Would be helpful to have a measure of quality.
- The size of sites is important: small sites are vital in accessible locations
- Landscape and green infrastructure could be marketed as a cultural asset

6. The following opportunities were identified by the landscape and heritage group:

- Remove conifers: this will help to uncover and manage Scheduled Ancient Monuments and views.
- Restore heathlands
- Plant woodland to decrease fragmentation
- Landscape-scale restoration and marketing; e.g.: Purbeck
- Restore landscape features, such as hedges, tress, copses

- Keep farmers farming: sustainable methods, grazing pastures, grazing stock, agri-environment initiatives
- Pursue holistic river corridor management
- Develop new home zones, public open space, trees
- Coordinated funding for GI
- Production of biofuels and renewable energy
- Be aware of range of CABE initiative, which have potential to inform approach in South East Dorset.
- Promote a sense of place
- Provide quality designed and well managed GI

Ecology and biodiversity

- Need new mixed woodland in the right place, such as the Stour Valley
- Provide/protect intimate-scale countryside – meadows, hedges, veteran trees – north of Wimborne.
- Identify chines as feature on map – provide permeability to coast.
- Enhance chines/cliffs along coast for biodiversity and public enjoyment
- Forestry opportunities to link heathlands, create sympathetic adjacent management
- Improve amount of wildlife-friendly gardens and allotments
- Development in South East Dorset may require mitigation for New Forest European sites (re: HRA).
- Extend and enhance multifunctional, permeable green routes in urban areas
- Back gardens are important: need to keep land open for biodiversity, water infiltration in existing developed areas
- Street trees need to be enhanced and encouraged
- Wareham Forest and Ringwood Forests identified as major enhancement zones
- Highlight all wooded areas within 10km of urban areas as sustainable forestry opportunity zones
- Issues with crossing roads that have recently become increasingly busy, including near Wareham Forest.
- Use NatureMap[112] to define BAP Habitat Creation Zones and Landscape & Biodiversity Enhancement Zones on the GI opportunities map
- The Coastal Eco-tourism Opportunity Zone on the GI opportunities map should be sensitive to statutory nature conservation sites.

[112] *Nature Map* can be accessed from Biodiversity South West's website: http://www.biodiversitysouthwest.org.uk/nm_map3dk.html

SECOND SESSION: OPEN SPACE STANDARDS

7. The purpose of the second session was to gather comments on the accuracy of the mapped open space data, and the relevance of the mapped national (ANGSt) and local standards to real GI deficiency in the sub-region. A summary of feedback from all five groups is provided below.

Is the mapped open space data accurate?

- Ringwood Forest is severed by study boundary, should be bigger - source accurate data.
- Remove the sites that are not freely accessible by the public (coloured purple on the maps as they are confusing.
- Suggest the coast, public rights of way and riverside access is mapped somehow, using different colour buffers to indicate different provision.
- Beaches and seafront should be identified, recognising that this is a different type of GI.
- The value of smaller open spaces particularly in the urban areas needs to be acknowledged and if possible mapped.
- Heaths should not be included in the mapped 'accessible' land but the analysis should look at how deficiencies might be addressed in the areas immediately surrounding them (the heaths might usefully need to be presented on the maps in a different colour so you can see where they are and potentially 400m buffers applied around them to see what provision or alternative green space falls within this zone).
- Woodland Trust has Accessible Open Woodland data which should be incorporated.
- Permissive access of agri-environmental schemes should be identified.
- Forestry Commission land should be identified.
- Harbourside should also be identified. Poole Harbour is a barrier: parts of the harbour may fall within an accessible buffer, but in practice people cannot easily access sites across it.
- Playable space – very small, local, informal sites in urban and rural areas.
- More detail should be provided at the local level. Perhaps more survey work is required?

Which distance standard(s) best reflects real open space deficiency in the sub-region?

- 450m distance standard is better reflection than 300m standard. Suggest adopt across S.E. Dorset. No objection to ANGSt for larger sites.
- The 400m distance standard has been used locally in the Interim Planning Framework, and that it would make sense to use this.
- It was noted that the much smaller 600m distance buffer for 20ha sites used by Christchurch (compared to the 2km buffer used for 20ha sites by NE) may be representative of the older population in this areas, which has greater mobility difficulties and may not be able to drive.
- Reference was made to CABE guidance which steers towards a 400m distance catchment for the smaller 2ha sites. It was felt that this was more realistic/representative of the situation in SE Dorset than the ANGSt 300m distance.

- It was felt it would be useful to run an additional access standard applying a 5km buffer to sites of 40ha or over (including and excluding the Dorset Heaths). Recent work shows that 80% of heath visitors travel this distance and that dog walkers amongst these visitors would need a 2km (ideally circular) walk to draw them to another site (a 40ha site would be needed to accommodate such a walk).
- The buffers around the 500ha+ sites misrepresent how the area is actually used; people wanting to feel they are in a large scale landscape are much more likely to do a coastal/ countryside circular walk on rights of way rather than visit the one forest site identified as the largest accessible open space. Need to reflect the 'draw' of areas which have good landscape and networks of paths e.g. Stour Valley way, rural coast.
- Transport networks vary in the area with some poorly connected areas or dense traffic areas which can be a barrier and so travel time should be taken into account with the access buffers (this perhaps points towards it not being appropriate to use the same buffer in the rural and urban areas for the larger sites?).
- Ideally access points to sites would also be considered in the way buffers are mapped, although the group appreciated that this study does not look at this level of detail for individual sites nor is this information comprehensively mapped across the sub-region.
- The deficiency mapping needs to consider access between sites in terms of Rights of Way, cycle routes etc as some sites will be better connected than others.
- The solutions to deficiencies likely to be different in the built-up areas to the rural areas.

Are there any major physical barriers to open space access that may affect the provision of open space in the sub-region?

- Congestion and travel times are barriers to use of open spaces.
- The Stour Valley should be actively promoted and made more accessible from Sturminster Marshall down to Christchurch Harbour.
- Small urban open spaces are often bland and unappealing, and must be better managed.
- Priorities for investment should be the creation and enhancement of small open spaces in the urban conurbation, and the enhancement of the Stour Valley as a strategic open space.
- It is important that barriers to access are identified and reflected in revised buffers including:
    - The sea (e.g. around Brownsea island)
    - Poole & Christchurch harbours
    - Rivers (e.g. Stour Valley has limited bridging points)
    - Railway
    - MOD land
- Need to consider public transport routes for those without cars etc (as well as ensuring there is an aim to enhance these).
- Roads, rivers, development, and public transport all create barriers.

How would you like to see these standards applied or adopted in the future?

- Areas where there is no open space, coastal access, or PROW/riverside access should be prioritised first. Open space delivery should be provided alongside initiatives to encourage use and enjoyment of the space, particularly by deprived communities.
- Communities must be involved in management of their local open space, to ensure it is recognised and valued.
- Having an accessibility standard is useful for assessing current deficiencies and therefore pointing to where future provision might best be located, but they did not see that it would be necessary/useful to adopt the distance standards as part of planning process unless the analysis showed there are major issues to be addressed and these are common across a number of areas of the sub-region. The group debated what the consequences might be of having an adopted standard and whether it would actually help secure new provision, some suggested that you cannot 'tax' a developer for a pre-existing deficiency.
- In terms of presentation, it would be useful to provide a table/spreadsheet of standards and targets.
- It might be useful to agree and adopt a quantity standard to help inform the quantity of new provision needed in association with proposed development. (It was noted that the population changes seasonally as a result of tourism and so any quantity standard would need to consider this.) It might be useful to assess population density versus open space provision to see if there are large populations which only have access to very small sites (combination of applying quantity and accessibility standard).
- Apply the standard through the Local Development Framework, including the Core Strategy and Site Specific Allocations DPDs
- Somehow the GI study needs to capture some kind of measure of connectivity, the network for biodiversity benefits and other GI functions.
- Quality and good design must be delivered.
- Connectivity of public rights of way is more useful than as-the-crow-flies routes.
- There is a need to look at quality and capacity of green space as well as quantity.
- Provision must meet the needs of different populations in urban and rural areas
- There is a need to take account of population densities
- Proximity standard is just one element of GI

Priorities for investment

8. The Landscape character and cultural heritage workshop group suggested the following priorities for investment in GI:

- Invest in small sites, including managing existing sites and creating new ones. The quality of these small sites is of high importance.
- Create linkages to/between new and existing sites.
- Beach, harbour, waterfront, and river corridors.

- A large strategic site, promoted through a flagship project, which would give the principles of GI a public profile.
- Creating linkages with existing open space and GI-relevant initiatives.
- Community ownership and input
- Areas of deprivation and deficiency should be targeted first as benefits here could be achieved more immediately and a broader range of targets or benefits could be realised.

APPENDIX 4

Attendees at Stakeholder Workshop

South East Dorset Green Infrastructure Framework Stakeholder Workshop
List of Attendees

Fiona	Atkins	Land Use Consultants
Mark	Axford	Bournemouth Borough Council - Planning Policy
Steve	Bone	Government Office for the South West - Environment, Transport & Climate Team
Adam	Bows	Dorset County Council - Transport Planning
Nikki	Brunt	Dorset Wildlife Trust
Hilary R	Chittenden	Environment Theme Group, East Dorset Community
Stuart	Clarke	Bournemouth Borough Council - Countryside Policy Manager
Polly	Cooper	British Horse Society
Imogen	Davenport	Dorset Wildlife Trust
Sara	Day	Dorset County Council - Minerals & Waste Planning Policy
Emma	Deen	Land Use Consultants
Rob	Doyle	Wimborne & District Angling Club
Steve	Dring	Purbeck District Council
Lizzie	Dunn	Land Use Consultants
Kate	Evans	Christchurch Borough Council
Tony	Harris	Dorset County Council - Senior Landscape Officer
Helen	Harris	Borough of Poole
Nigel	Jacobs	Borough of Poole
Paul	Jones	Dorset County Council - Countryside Ranger
Sally	Knott	East Dorset District Council
Wendy	Lax	Bournemouth & Poole PCT
Warren	Lever	Borough of Poole
Malcolm	Lewis	Dorset County Council - Spatial Planning
Robert	Lofthouse	Savills
Justin	Milward	Woodland Trust
Amy	Paterson	Dorset PCT
Pat	Pryor	Dorset County Council - Culture & Community Planning
Andy	Ramsbottom	Poole Harbour Commissioners
Brian	Richards	Environment Agency
Bruce	Rothnie	Forestry Commission
Joanna	Sharp	Footprint Ecology
Clive	Sinden	Christchurch Borough Council - Countryside & Open Spaces Manager
Tony	Spence	New Forest National Park Authority
Nick	Squirrell	Natural England
Phil	Sterling	Dorset County Council - Natural Environment Team Manager
Barbara	Talbott	Dorset County Council - Transport Planning
Heather	Tidball	Urban Heaths Partnership
Alison	Turnock	Natural Heritage / Dorset AONB Officer (Biodiversity)
William	Wallace	East Dorset District Council
Pete	West	Dorset County Council - Renewable Energy
Gemma	Yardley	Dorset County Council - Spatial Planning
Steve		Wimborne & District Angling Club