# Towards a Green Infrastructure Strategy for South Hampshire:

## Advice to PUSH

**July 2008**

## Executive summary

Green infrastructure describes the network of greenspaces, landscapes and natural elements that intersperse and connect our cities, towns and villages. More than this, it is a holistic approach to viewing the natural environment which acknowledges the multiple benefits and vital functions it provides for the economy, wildlife, local people and communities alike – including local climate and air quality amelioration, floodplain management, and coastal sea defence.

This document follows on from the Research Report commissioned by the Partnership for Urban South Hampshire (PUSH) and produced by TEP in September 2007. It contains advice and recommendations on protecting, enhancing and expanding green infrastructure in the South Hampshire sub region.

TEP's work sets out principles and a vision for Green Infrastructure in South Hampshire, identifying broad areas of opportunity and providing an indication of priorities. It recommends further work needed, identifies potential sources of funding, and gives examples of good practice. Together, these help provide Authorities with strategic information needed to underpin decisions about future change within the sub-region.

### *Scale, multifunctionality, public benefit*

Green infrastructure is equally relevant to urban and rural areas, and is important at different geographic scales. National, regional, county and local policies all promote green infrastructure, both in terms of its functions and also as an organising concept for delivering sustainable growth – as described in Section 1.

Green Infrastructure planning is therefore about helping local authorities and their partners to identify the different and important functions of our landscapes, townscapes and individual assets, recognise where different functions may be conflicting, and help to find ways of resolving these conflicts to deliver benefits for people and wildlife alike.

### *Methodology*

This document is the culmination of a period of detailed research examining the geography and demography of the area, future changes predicted from growth and climate change, coupled with a reflective analysis on the priorities for green infrastructure. It sets out the vision for green infrastructure in the sub region, its functions and possible approaches for maximising these functions, a spatial framework showing the broad geographical areas where green infrastructure investment is most needed, and delivery priorities

The approach taken involved several workstreams, described in Section 2:

- Understanding the green infrastructure resource – including landscape character assessment, environmental condition assessment, and a quantitative audit of green infrastructure resources including biodiversity and community attributes;
- Identifying green infrastructure assets and gap analysis
- Identifying the need for green infrastructure and its key functions in South Hampshire
- Analysis of threats, pressures, trends and priorities;
- Public benefit assessment; and
- Identifying good practice.

Throughout, this work has drawn on extensive stakeholder consultation on issues, functions, vision and aspirations, and current and future projects.

The information gathered through this process is presented in Section 3: the Evidence Base.

### *Green Infrastructure functions & a vision for South Hampshire*

Nine green infrastructure aspirations or functions - each delivering many public benefits - were identified as critical in South Hampshire:

- Recreation and health
- Biodiversity and natural resources
- Landscapes
- Coast and water
- Climate change
- Cultural and historic environment

- Economic development
- Social inclusion
- Productive environments

The Green Infrastructure Vision encompasses these nine objectives and is for:

> *A sustainable, prosperous and attractive South Hampshire, proud and protective of its many natural resources – coast and countryside, landscapes and heritage – and its green and biodiverse built environments and public spaces that together bring a high quality of life and distinctive sense of place.*

Section 5 of the report provides spatial analyses of green infrastructure needs for the sub-region across 8 suggested implementation programmes (drawn from the nine green infrastructure aspirations above):

- Biodiversity;
- Climate Change Adaptation;
- Coast and Water;
- Green Access and Movement;
- Parks for the Future;
- Working Landscapes;
- Landscapes, Culture and Heritage; and
- Supporting Economic Growth.

Each provides an outline of the challenges faced in the sub-region, a spatial plan, and strategic recommendations to PUSH including possible projects, policy support required, partnership working opportunities and further work needed.

Section 6 provides an overall Green Infrastructure Concept diagram and a Green Network diagram, and sets out 15 green infrastructure goals based on the functional analyses which PUSH may wish to adopt to meet its objectives and achieve the Green Infrastructure Vision.

*Implementation and delivery recommendations*

The challenge of implementation and delivery is examined in Section 7. The key challenges for PUSH are that:

- Many of the recommendations involve enhancing and managing existing assets, so a relatively high proportion of funding needed will be revenue: this will be a particular challenge in a time of intense financial pressure on non-statutory services.
- PUSH is a 'young' partnership, and green infrastructure is easier to talk about than deliver – requiring cross-boundary collaboration and sharing of resources.
- Returns on green infrastructure investment take extended periods of time, and needs to be provided ahead of growth

In response to this 'implementation challenge', several overall recommendations for PUSH to consider are suggested:

- Building on the work to date, a follow-up strategy is needed setting out what PUSH will deliver and how they intend to deliver it.
- "Business as usual" is not an option for PUSH if they want to meet their own objectives, as well as national and regional policy standards.
- Policy support alone is not enough to deliver green infrastructure objectives and meet the needs of the area in the future.
- PUSH will need to win the hearts and minds of decision-makers, funding agencies and the community in order to convince all players within the sub-region that green infrastructure is important.
- Partnership working and willingness to understand the remit of other agencies is essential.

A series of more specific recommendations are also presented across 5 implementation areas:

- *The planning process*
- *Corporate and community governance*
- *Co-provision*
- *Funding*
- *Capacity building*

# TOWARDS A GREEN INFRASTRUCTURE STRATEGY FOR SOUTH HAMPSHIRE – CONTENTS

## Acknowledgements

This document has been produced by environmental consultants TEP, guided by PUSH's Green Infrastructure Steering Group and informed by a wide range of stakeholders from across the sub-region. TEP and the Steering Group acknowledge this considerable effort made by many stakeholders in providing information and inspiration throughout this process.

A full list of stakeholder names is found at Appendix 1.


## Foreword: Creating Sustainable Communities in South Hampshire - A 20 Year Vision for Green Infrastructure

The Partnership for Urban South Hampshire (PUSH) has a vision for South Hampshire to be a better place for everyone who lives, works and spends their leisure time here.

The recommendations in this document emerge from the findings of a previous research phase and use the natural strengths of the area to create a planned network of multifunctional greenspaces, landscapes, natural elements in our towns, and the links between them. The recommendations will be considered and form the basis of a future Green Infrastructure Strategy for South Hampshire that is placed firmly within the context of growth, both economic and social, and the desire to make South Hampshire a more prosperous, attractive and sustainable place.

All of the recommendations are based on this vision for green infrastructure in South Hampshire, developed by stakeholders for:

*A sustainable, prosperous and attractive South Hampshire, proud and protective of its many natural resources – coast and countryside, landscapes and heritage – and its green and biodiverse built environments and public spaces that together bring a high quality of life and distinctive sense of place.*

This vision encompasses PUSH's nine objectives:

A green infrastructure which supports **a buoyant and diverse economy** through creating an attractive setting for growth and a culturally rich South Hampshire with a distinct sense of place.

**Reducing inequalities and developing skills** by acknowledging how attractive green-spaces can raise quality of life, targeting communities with greatest need, and improving unequal access to 'environmental services' such as access to free outdoor recreational spaces, tranquil spaces and access to nature.

**Securing sustainable communities** by ensuring that green infrastructure is built into regeneration plans for existing towns and cities, and into plans for new settlements and urban extensions.

**Safeguarding a quality environment** by protecting existing assets, while enhancing and linking the green infrastructure resource. This will create robust habitat networks with the capacity to absorb population growth and climate change.

**Providing quality housing for all** by recognising the importance of attractive multi-functional green infrastructure in health and quality of life, providing environmental services and retaining high land values.

**Improving accessibility** to green infrastructure by improving off-road links so people can move easily between our green infrastructure assets and between town and countryside, by foot, by bike, or by horse.

**Providing quality cultural, recreational and leisure facilities** by ensuring that heritage assets are protected, celebrated and managed appropriately and by ensuring that green spaces are valued as important community assets.

**Improving health** through providing access to free, attractive, well designed green spaces and helping people to use them

Maintaining the separation of settlements whilst ensuring that the land within and between communities is valued and - where possible - multifunctional, making the best use of land and providing a range of valued environmental services.

The document acknowledges that there are issues in South Hampshire that green infrastructure can help to address, such as social exclusion and inequalities, education and skills, transport, and poor quality neighbourhoods. It also highlights South Hampshire's high quality natural environment and many natural assets:

- The close proximity of the New Forest National Park and South Downs Area of Outstanding Natural Beauty (and proposed National Park; our rivers and streams, harbours, varied coastline and seascapes;
- Our important habitats – heathlands, chalk streams, mudflats, salt marshes, woodlands – and the wealth of biodiversity they support;
- Our range of landscapes and townscapes, from the rural Forest of Bere to our towns, suburbs and the maritime cities of Southampton and Portsmouth complete with busy ports, shops, and industry;
- Our urban parks, our country parks, our rights of way network, easy access to the water and a range of water-sports;
- Our fascinating layers of history, from the ancient to the modern: Roman settlements, medieval deer parks, agricultural change, iron-making, shipbuilding, naval and military connections, cruise-ships; and now a modern world-class waterfront.

Above all, the document and its recommendations are a first step towards better joint working, understanding and improving the interconnections between the urban and the rural, making better use of the land in the face of many pressures, and valuing the many functions that South Hampshire's green infrastructure provides – not least ensuring that our economic growth is sustainable.

# Section 1

# What is Green Infrastructure, and why is it Important for South Hampshire?

## Background

South Hampshire has a distinctive landscape and enjoys a rich diversity of woodlands, farmlands, rivers and a unique coastal ecosystem. Its cities and towns are rich in built heritage, and the sub region has a growing economy with good links to Southern England and to Europe.

South Hampshire's population reaches over 1 million, concentrated in the cities of Southampton and Portsmouth and the towns of Eastleigh, Fareham, Gosport, Havant and Waterlooville. Southeast England as a whole is experiencing sustained economic and population growth, and as a New Growth Point, South Hampshire will experience significant housing growth and creation of major employment opportunities.

Figure 1.1 - Location Plan


Over the next 50 years, the area will change greatly. As people live longer and more people settle in the area, communities will become more diverse and urban areas will become more densely populated.

The economy will grow and South Hampshire will be part of a global knowledge-based system. Social issues such as poor health, limited skills and areas of limited mobility will hopefully be addressed – although research points to "ticking time bombs" of obesity and mental stress that will be major public health problems.

The weather is likely to become warmer, wetter and wilder, with some of South Hampshire's valuable coastline habitats facing loss due to rising seas and some ancient woods, venerable trees and distinctive heritage may succumb to heat stresses. Communities will also be more exposed to environmental stresses from heat and flooding.

Failure to invest in sustaining the existing green infrastructure will place already-stressed environments under a greater burden and will reduce the quality of life for future generations.

This era of rapid growth and transformation offers a unique opportunity to invest. The past decades have taught us that economic and social growth cannot be sustained without looking after the environment, both globally and locally. We depend on the land around us: greenspaces for physical health, sport and mental refreshment; farmland and forests for food and fuel; marshland for flood defences and biodiversity; urban greenery for shade and wildlife; and attractive landscapes for tourism and a thriving economy; all part of the "green infrastructure" on which we depend.

Investing in green infrastructure is a positive, forward-looking and economically-attractive strategy: increasing environmental capital will enable smart growth. It is also a response to the low-carbon challenge. Making towns and cities more liveable will attract more people to urban lifestyles which are inherently less carbon-emitting than suburban or rural lifestyles.

***"In the 21st Century, cities will compete on the value they provide in terms of their physical and service offer, their heritage, their ambitions and their character.***
***What can be created that is so valuable that the city's businesses, institutions and residents want to remain, that will attract investors, visitors and talent, and that will make commentators and influencers recommend the city?"***
**From "City Branding" – www.placebrands.net (2006)**

## Purpose of this work

The Partnership for Urban South Hampshire (PUSH) is committed to "smart growth" - where economic and social growth is coupled with environmental improvement and protection of irreplaceable natural assets.

The Department for Communities and Local Government (CLG) placed certain conditions on PUSH designed to ensure that, as growth proposals within the region develop, they remain "sustainable, acceptable environmentally and are realistic in terms of infrastructure". In relation to Green Infrastructure, the following was requested:

> "Produce a Strategy, based on rigorous assessment of potential impacts on Green Infrastructure assets in the sub-region (especially international and national designated sites) and associated biodiversity. The Strategy should ensure:
>
> i. that additional pressures from growth (including increased recreational pressures) are minimised;
> ii. that robust mitigation packages are identified and implemented as appropriate;
> iii. that opportunities to enhance green assets in the sub-region are maximised.

In line with these requirements, and recognising the value of work undertaken at the Local Authority level, PUSH's leadership panel established a steering group who were charged with developing the green infrastructure agenda in South Hampshire, taking input from local specialists in the environmental, social and economic sectors.

This document is the first step in moving towards a green infrastructure strategy for the sub region. Together with the extensive evidence base (see Section 3) collected under the previous research phase, the recommendations set out in this document aim to:

1. Establish the extent and nature of existing green infrastructure provision;
2. Set out a common vision for green infrastructure across the sub-region;
3. Provide the information needed to underpin decisions about future change;
4. Identify issues, opportunities and threats to existing green infrastructure assets arising at a sub-regional level as a result of the housing provisions outlined in the South East Plan;
5. Identify measures to enhance existing green infrastructure assets;
6. Identify broad areas of potential new green infrastructure;
7. Supplement relevant work being undertaken by individual authorities or organisations (e.g. PPG 17 open space strategies) by showing what the inter-linkages are between urban and countryside areas and across Local Authority boundaries;
8. Help deliver on sustainability policies and visions outlined in key documents such as the South East Plan and The Countryside In and Around Towns[1];

[1] "The Countryside In and Around Towns – a vision for connecting town and country in the pursuit of sustainable development" – Countryside Agency & Groundwork (2005)

9. Provide a focus for cohesive partnership working across a range of disciplines and sectors.

This document suggests priorities for green infrastructure investment and interventions that respond to PUSH-wide needs, demands and opportunities, addressing quality of life issues such as community health, access, biodiversity, sense of place, economic growth and climate change.

> ***"Starting now, our green infrastructure will be sustained and strengthened by a few big actions and a thousand and one small changes"***
> **Adapted from "The Green City" Low, 2005**

It provides a foundation for the future development of a PUSH-wide green infrastructure strategy acting as a common framework for local authorities that can be translated and developed further in individual Local Development Frameworks (LDFs), from which each Local Authority, landowner, land manager and initiative can work out its own locally specific response.

## Definitions

Green infrastructure describes the network of greenspaces, landscapes and natural elements that intersperse and connect our cities, towns and villages. More than this, it is a holistic approach to viewing the natural environment which acknowledges the *multiple benefits* and *vital functions* it provides for the economy, wildlife, local people and communities – including local climate and air quality amelioration, floodplain management, coastal sea defence and quality of life. Green infrastructure is considered in five parallel ways:

### Green Infrastructure Resource

The **Resource** is the collective area of all landscapes, green and open spaces, natural elements, rivers and coasts; and the corridors between such places.

### Green Infrastructure Assets

**Assets** are areas which, by virtue of their location, their use or their management, serve one or more functions of social, economic or environmental public benefit. Assets can be defined sites, or equally can be landscapes or other broader environmental features.

**Green Infrastructure Functions** are roles that land can play if managed in an appropriate way, and numerous environmental or socio-economic functions are possible (e.g. biodiversity, local distinctiveness, public health, sport and recreation, flood management, climate change adaptation and many others).

Green infrastructure can be 'multifunctional' where different functions or activities occur on the same piece of land. The Countryside In & Around Towns approach recognises that – alongside the protection, management and appreciation of wildlife and geological features as characteristic elements of the natural and cultural environment - sustainable, multifunctional landscapes are visually pleasing, environmentally vibrant, functionally productive and socially useful and accessible.

This approach is particularly apt in South Hampshire, where intensive pressures can arise from urban expansion, coastal squeeze, agriculture and forestry, nature conservation priorities and land and water based recreation.

### The multiple benefits of Green Infrastructure

This is about the roles and functions that land can have if managed in an appropriate way. In areas such as South Hampshire there is immense pressure on our land –for housing, industry, transport, agriculture and forestry, nature conservation, recreation and clean water provision and storage. It is therefore important that our land delivers many different **public benefits.** Green Infrastructure helps us to demand more from our land in a sustainable way. It helps to identify where our land could be providing multiple benefits. Examples of Green Infrastructure functions include biodiversity, protection of cultural heritage, landscape, water storage, clean water, food production, forestry, sport and recreation provision, and renewable energy production.

As an example, Queen Elizabeth Country Park in Hampshire is 570ha in area and therefore an important strategic Accessible Natural Greenspace for the people of both South and East Hampshire. It contains parts of Butser Hill National Nature Reserve and Special Area of Conservation. Management of the site therefore has to balance the needs of people and wildlife. The park is also an important education resource, with a dedicated education officer. Timber harvested on site from the extensive forest and woodland blocks provide a renewable energy resource as it is used to supply heat for the visitor centre via a woodfuel boiler.

Another example is Southampton Common: a large 148ha area of open space in the heart of the city. It is a very popular site with residents and visitors, and people use the site for a range of activities such as walking, sunbathing, picnicking, jogging, cycling, angling, sport and playing games. The site was also designated in 1987 as a site of special scientific interest based on the variety and quality of habitats (woodland, scrub, heathland, wet and dry meadows, rough and amenity grassland, ponds, streams and ditches) and the large population of the internationally endangered Great Crested Newt. The Hawthorns Urban Wildlife Centre provides visitor information and facilities, and runs schools education services for Southampton and Hampshire schools, colleges and other learning groups. The site is managed by the local authority, which has prepared detailed management plans for the site to ensure that it continues to meet the needs of both people and wildlife.

Green Infrastructure planning should therefore be about helping local authorities and their partners to identify the different and important functions of our landscapes, townscapes and individual assets, increasing multifunctionality where appropriate but also recognising where different functions may be conflicting, and help to find ways of resolving these conflicts.

## Public Benefit

Green infrastructure is set firmly in a context of **public benefit** (sometimes expressed as "ecosystem services" and/or "social policy outcomes"). Public benefit is defined in relation to social, economic and environmental goals appropriately acting in combination (i.e. sustainability goals), and it has a spatial dimension, responding to the needs and aspirations specific to an area.

## Green Infrastructure Scales

Green infrastructure is equally relevant to urban and rural areas: in urban situations it complements and balances the built environment whilst in rural settings it sustains economies and biodiversity. It also links town and country and interconnects wider environmental processes, helping regenerate deprived communities, sustain prospering and growing settlements and the quality of life of a diversifying and ageing population.

Thus green infrastructure is important at different scales: small sites serving a large population are just as valuable as a protected landscape or habitat is at the city-regional scale. Green infrastructure interventions must consider "catchments" of users or beneficiaries to deliver policy and management responses to sustain green infrastructure at these different scales:

- neighbourhood
- town/city

- city-region
- strategic

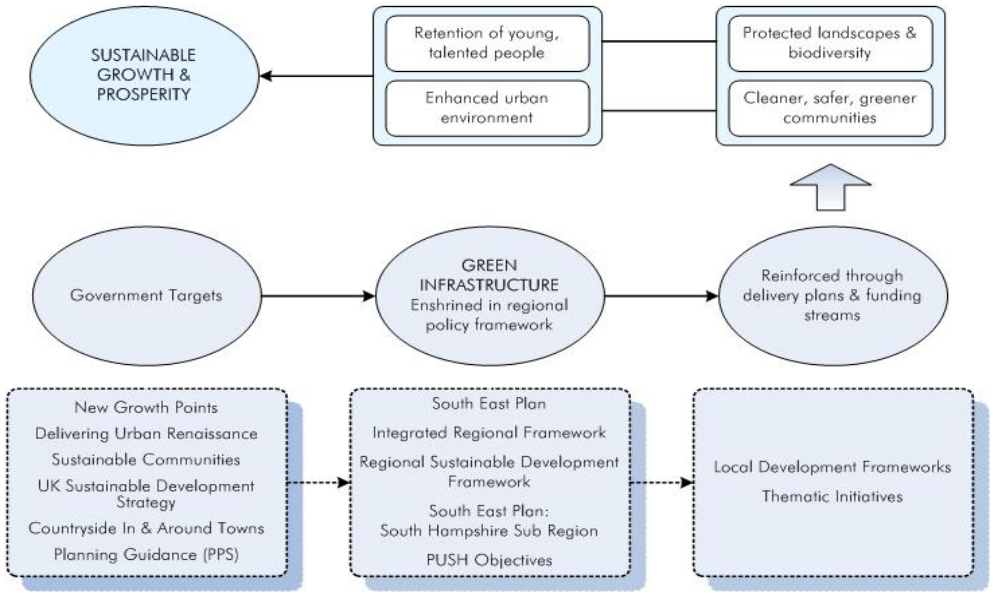
The illustration at the end of this Section demonstrates how green infrastructure operates at different scales, and the type of assets that are valuable in different situations.

This document for South Hampshire considers green infrastructure at a city regional scale, but includes recommendations for green infrastructure planning and delivery at neighbourhood and district scales.

## Statutory and Policy Drivers

National, regional, county and local policies all promote green infrastructure, both in terms of its functions and also as an organising concept for delivering sustainable growth. It is also recognised as means of sustaining environments and ecosystems in line with statutory requirements of the Habitats and Environmental Assessment Regulations.

Policy Context for Green Infrastructure




### National Policy Context

Although the policy framework is still evolving, green infrastructure has quickly risen up the national political agenda to be referenced in many policy documents, including:

*Our Towns and Cities: The Future - Delivering an Urban Renaissance, 2000 (The Urban White Paper)*
*Sustainable Communities Plan, 2003*
*Sustainable Communities: People, Places and Prosperity, 2005*
*Countryside In and Around Towns, 2005*
*Securing the Future: The UK Sustainable Development Strategy 2005*

In 2006 and 2007, Communities and Local Government announced a programme of New Growth Points and EcoTowns. Prospectuses for these cite the need for green infrastructure to be considered at the outset of settlement planning.

Planning guidance requires the protection (and building) of environmental capital as a co-product of development and land management. The most relevant policy guidance is PPS1 (delivering sustainable development); PPS6 (planning for town centres); PPS7 (rural areas); PPS9 (biodiversity and geological conservation); PPS11 (Regional Spatial Strategies); PPS12 (Local Development Frameworks); PPS25 (flood risk).

### Regional & Sub-Regional Policy Context

#### The South East Plan

The (draft) South East Plan has a vision for sustained improvement in quality of life, measured by the well being of its citizens, the vitality of its economy, the wealth of its environment and the prudent use of natural resources. The South Hampshire sub regional expression of the Plan recognises that a high quality environment is a considerable advantage in achieving the vision for South Hampshire to improve its sustainable economic performance; where South Hampshire is a place where businesses want to invest and people want to live.

However, the Plan's provisions for an additional 80,000 homes in South Hampshire between 2006 and 2026 have raised concerns that its valuable natural landscapes such as the New Forest and internationally and nationally important ecosystems including Natura protected sites will come under unsustainable pressure from development and demands from a rapidly growing and prospering population. Such potential negative impacts are recognised in the statutory assessments of the South East Plan; discussed below.

The *Appropriate Assessment* (AA – see below) of the Draft South East Plan[2] and its implementation plan[3] specifically analyse growth-related impacts that on the Natura sites in and around the PUSH area. This assessment suggests there may be a role for green infrastructure in addressing such concerns, specifically in relation to water resource difficulties and water quality, air quality, recreational pressures, urbanisation, coastal squeeze, aircraft disturbance, dredging and increased shipping.

With its broader remit, the South East Plan's *Sustainability Appraisal*[4] (SA) identified tensions between the Plan's objectives of promoting economic growth, improving social conditions, protecting environmental assets and promoting environmental sustainability. The SA for the SE Plan's Implementation Plan[5] suggests that clear actions are needed to address, enhance and create new biodiversity assets as an integral component of the regional and South Hampshire sub-regional Implementation Plans. This specifically includes green infrastructure.

### Integrated Regional Framework (2004)

This outlines the key issues that need to be addressed to reduce negative effects of economic growth, identifying 4 main objectives, 2 of which green infrastructure relates directly to:

i. Social progress which recognises the needs of all
ii. *Effective protection of the environment*
iii. *Prudent use of natural resources*
iv. Maintaining increased and stable levels of economic growth and employment

These also represent the 4 themes for sustainable development in the South East region, as described in the Regional Sustainable Development Framework.

### Sub Regional Policy Context

### The South East Plan: South Hampshire Sub region

A high quality environment is recognised as a considerable advantage for achieving the vision for South Hampshire: to improve (its) sustainable economic performance, where South Hampshire is a place where businesses want to invest and people want to live. Two policies in particular reflect the importance of GI: enhancing urban areas so that they increasingly become places where people wish to live, work and spend their leisure time (policy SH1), and joining development to the natural environment through linked and accessible open spaces that promote both recreational opportunities and high biodiversity (policy SH14).

### Partnership for Urban South Hampshire Objectives

Maximising the potential of local green space to help absorb pressures on landscapes and the natural environment is recognised by PUSH as essential to delivering the required development that will support the economic aspirations of the sub-region. PUSH recognises that ensuring a high level of protection for existing green space and biodiversity is a "quid pro quo for further development" (*PUSH Environmental Policy 2006*).

PUSH's review[6] of infrastructural needs identified green infrastructure as a critical factor (alongside transport, water supplies, power supplies, etc) necessary to support major development in the sub region and to meet multiple social objectives, including biodiversity, and to respond to climate change. PUSH's response to the South East Plan's Examination in Public (EiP) outlines their intentions to develop a green infrastructure strategy.

[2] Scott Wilson / Levett-Therivel (October 2006), on behalf of SEERA
[3] Scott Wilson / Levett-Therivel (November 2006), on behalf of SEERA
[4] ERM (March 2006), on behalf of SEERA
[5] ERM (October 2006), on behalf of SEERA

[6] "South Hampshire Sub Regional Strategy: Background Document 4 – critical other infrastructure requirements" PUSH, December 2005

## Appropriate Assessment of the South East Plan

Appropriate Assessment is a requirement of the European Habitats Directive and the Habitats Regulations (the piece of legislation which translates this into UK law). Its purpose is to assess the impacts of plans and projects on internationally designated nature conservation sites - Special Protection Areas (SPAs) and Special Areas for Conservation (SACs), collectively referred to in this report as Natura sites. Where it is not possible to demonstrate that there are no adverse impacts on site integrity, options need to be explored to avoid any risk of damaging effects to the sites, and where avoidance is not possible mitigation measures need to be explored.

The Appropriate Assessment of the South East Plan was undertaken in October 2006[7]. It identified that there is likely to be an impact on protected sites and areas from increased recreation by a rising population: many of South Hampshire's Natura sites are already heavily used and form important recreational resources, and future recreational pressure from South Hampshire will affect these sites (as well as the protected landscapes of the New Forest, South Downs and Chichester Harbour). Coastal biodiversity and recreational assets are also under further pressures from sea level rise.

The Green Infrastructure Research Report and this document contribute to the evidence base via the:

- Collation of datasets;
- Analysis of land use at a strategic scale;
- Distribution of EU sites, national and local sites, habitats;
- Environmental assessment of the area at a landscape scale and identification of environmental assets;
- Analysis of green infrastructure in relation to air quality;
- Further information on climate change.

[7] http://www.southeast-ra.gov.uk/southeastplan/key/app_assess/appropriate_assessment-nov06.pdf

The analyses of green space deficits against recognised standards (such as Natural England's Accessible Natural Greenspace Standards ANGSt) also contribute by showing where alternative greenspace is lacking and particular pressure points among the Natura sites.

However, a PUSH commissioned report[8] identifies that there are some information gaps for the assessment of impacts within the sub-region, including the potential for recreational disturbance. It set out a number of proposals to fill the identified data gaps which are needed to complete a sound appropriate assessment of the 'core strategy', including:

i. Water abstraction and consumption
ii. Waste water and water quality
iii. Air quality
iv. Loss of supporting habitats
v. Climate change
vi. Recreational disturbance

Considering the results of both projects, TEP's recommendations are:

- That PUSH should undertake work to fill in information gaps, and ensure that this feeds into green infrastructure planning;
- That any Appropriate Assessment / Habitat Regulations Assessment work should be undertaken alongside GI planning / considerations to ensure that the future GI Strategy can adequately address the results;
- That local authorities use both this work and the findings of the Tesserae report to understand and appropriately act to address the sub-regional impacts of the South East Plan;
- That projects which will help to avoid damage and disturbance to sites, or which include mitigation measures if required are established as a priority;
- That the GI recommendations laid out in this paper are interpreted with caution, recognizing that there will need to be assessment work undertaken at a local level when considering projects.

[8] PUSH Habitats Regulations Assessment Framework: the Next Steps (2007) Tesserae Environmental Consultants

### Implementation Policy

### Local Development Frameworks

The draft *PPS12*, published in November 2007, sets out government policy on Local Development Frameworks (LDFs): a 'portfolio' of local development documents which present the spatial strategy for an area. The guidance notes that LDFs must create a strong relationship between service delivery and planning for the built and natural environment in order to create strong and prosperous communities – a role for green infrastructure that is explored throughout this strategy.

### Thematic Initiatives

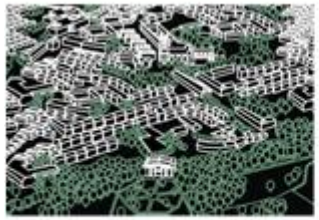
The multifunctional nature of green infrastructure is such that it also has relevance to a number of thematic plans and projects, such as the South East Climate Change Strategy, Local Authority Sustainable Communities Strategies and the Regional Forestry Framework (among others).


In 2006, the Mayor challenged New Yorkers to generate 10 ideas for the sustainable future of the city. The result is a sweeping plan to enhance the urban environment. Focusing on issues of land, air, water, energy and transportation, the plan has 10 initiatives several of which relate to green infrastructure functions. The plan explicitly seeks to build homes, create clean and safe greenspaces and waterways to help attract 1 million more people into the city. This strategy will result in a net reduction of 30% in citywide carbon emissions, by enabling more sustainable lifestyles.

## Green Infrastructure: from Neighbourhood to Town & City through to City-Regional and Strategic Scales

### Neighbourhood Scale

A network of local green spaces addresses many user needs especially in light of urban densification, demographic changes, social inclusion; and helps to move towards a low carbon economy



- Street Trees / Home Zones
- Roof Gardens & Green Roofs
- Pocket Parks
- Gardens
- Urban Plazas
- Village Greens

- Local Rights of Way
- Dedicated Gardens / Cemeteries
- Institutional Open Spaces
- Ponds & Small Woodlands
- Play Areas
- Local Nature Reserves

### Town / City Scale

District scale green infrastructure contributes to an area's distinctiveness and biodiversity, allowing a wide range of user groups to share the same space.

- City Parks
- Urban Canals & Waterways
- Green Networks
- Multi-user routes
- Urban Commons
- Forest Parks

- Country Parks / Estates
- Continuous waterfront
- Municipal / Cathedral Plazas
- Lakes
- Major recreational spaces
- Landmarks & Vistas & Gateways

### City Regional Scale

Including major sites and landscape tracts, as well as smaller interconnected neighbourhood and district assets, this scale of green infrastructure provision can deliver multiple ecosystem services and public benefits, such as biodiversity, landscape enhancement, recreation, health and climate change adaptation

- Regional Parks
- Rivers & floodplains
- Shoreline & Waterfront
- Strategic & Long-distance Trails
- Major (>100ha?) woodlands
- Community Forests
- Open Access Sites
- Landmarks & Vistas
- Reservoirs
- Environmental Management Initiatives
- Strategic Corridors & Gateways

### Strategic Scale

- Coastline Management Planning
- Cross-boundary green networks (e.g. South Downs – New Forest linkages)
- Regional Environmental Frameworks for Biodiversity, Landscape, Heritage
- Strategic River Catchment Plans
- National Trails & Destinations
- Strategic Infrastructure corridors
- Behavioural & Societal Change

# Section 2

## Methodology

## Scope of the work

This document is the second of a two stage process in moving towards a green infrastructure strategy for South Hampshire. The first stage involved intensive research to identify and analyse the green infrastructure resources, assets, issues, functions and benefits in South Hampshire, the results of which form the basis of the recommendations put forward in this document. This Section summarises the various methods undertaken in that research phase.

The scope of this work was informed by the brief set by PUSH authorities, who wanted a strategic analysis of Green Infrastructure to help local authorities to see what the inter-linkages are between urban and countryside areas and across Local Authority boundaries. The analysis of mapping information therefore focused on green infrastructure at the neighbourhood and city-regional scales (as described at the end of this Section). It included recommendations for planning and delivery of green infrastructure at neighbourhood and district scales where appropriate, but further work will need to be undertaken by PUSH Local Authorities themselves if they require a greater level of detail on particular aspects of Green Infrastructure.

Rather than undertaking any new research, the objective was instead to collate existing work and highlight any key information gaps. A report detailing the findings of the research is available at [reference], with key information re-presented in this document as the evidence base in Section 3.

## Methods and developing the approach

### Understanding the green infrastructure resource

Several methods were used to audit and describe the green infrastructure resource, including:

- Collation of many separate Green Infrastructure datasets provided by local authorities and other key stakeholders.
- Audit and mapping of these datasets using Geographical Information Systems (GIS)
- Landscape Character Assessment, considering:
    a. land use and infrastructure
    b. physical attributes;
    c. biodiversity character;
    d. current landscape character; and
    e. historic character.

  3x visits to the area were also made to verify landscape character in the field
- An assessment of environmental condition was undertaken where possible, using GIS datasets such as air and water quality, tranquillity, and the condition of natural and historical assets.
- Quantitative audit of the Green Infrastructure resource, using the Generalised Land Use Database to identify overall quantity of greenspaces, waterbodies, gardens etc.
- An assessment of biodiversity assets, including:
    - Coarse assessment of biodiversity abundance (the extent of priority habitats within 100m of any given point) to broadly identify areas where there is a deficit of semi-natural habitats
    - Collation of HCC habitat potential mapping.
- Audit and mapping of community attributes, such as urban density, access and rights of way, indices of multiple deprivation, demography. Including mapping of:
    - Income deprivation;
    - Education deprivation;
    - Existing access networks;
    - Accessible open space of a strategic nature;
    - Greenspace deficits;
    - Population density, catchments and pressures (modelling existing and future populations).

### Identifying green infrastructure assets

Figure 2.1 gives an indication of where green infrastructure assets of 'more than local' significance and existing green infrastructure initiatives are located in South Hampshire. These were identified through stakeholder consultation according to the following criteria:

- Sites which are part of, or contribute towards, nationally or internationally important ecological networks;
- Open spaces considered to be of district value for amenity and greenspace functions;
- Networks of smaller sites which together form an asset of district significance particularly where these serve a large (and sometimes needy) population;
- Major accessible or publicly-owned sites e.g. accessible woodlands, commons and country parks over 5 hectares;
- Settlements of very high distinctiveness where the natural environment is crucial to the setting;
- Other sites or features identified as important assets within South Hampshire by stakeholders.

Assets include promenades, plazas, country parks, ancient monuments, nature reserves, central parks, trails, rivers, harbours, marinas, woodlands, estates and some areas of farmland, with full details of the assets described in Appendix 1.

It should be noted that the map may not present a complete picture, drawn as it was from stakeholder consultation, and should not be considered as a 'final version'.

A gap analysis was also undertaken to suggest how a green infrastructure strategy might address gaps in delivery or promotion of green infrastructure, and how it might help resolve conflicts between other initiatives and the delivery of good green infrastructure.

### Identify need for green infrastructure, and key functions in South Hampshire

A policy review was undertaken to identify whether sub-regional policies currently support green infrastructure planning, alongside an evaluation of whether the assets and resources currently meet the needs of local communities.

A GIS based mapping technique, the "Public Benefit Recording System", considers social, economic and environmental indicators in combination to present areas where green infrastructure can deliver the greatest public benefits by analysing needs and opportunities in relation to:

- Enjoying and protecting the special qualities of the environment;
- Safeguarding or restoring environments which are degraded, are in decline or are at risk;
- Community needs and aspirations;
- Economic prosperity.

The public benefit assessment highlighted some key issues in relation to what green infrastructure can and should deliver in South Hampshire, and starts to inform approaches to green infrastructure planning that are appropriate to the sub-region's needs and aspirations.

### Analysis: threats, pressures, trends and priorities

Several green infrastructure 'themes' had been provisionally identified by the PUSH partners, then reviewed and verified by stakeholders. To identify the impacts of housing growth and other drivers for change, opportunities, and priority locations for intervention, research and analysis was carried out for each theme, considering:

- Analysis of trends and issues by green infrastructure theme;

- Assessment of priority areas for recreation and health - where improved Green Infrastructure could improve the health and wellbeing of vulnerable communities;
- Assessment of where Green infrastructure can deliver against social inclusion needs – mapping of local scale Accessible Natural Greenspace deficits against health, skills, and mobility deprivation;
- Assessment of the current levels of functionality of each landscape character area.

### Identifying good practice

Case studies from around the world were identified to show how the creation, enhancement and management of green infrastructure has worked elsewhere. They were reviewed to consider how green infrastructure is planned, designed and managed, policy and partnership foundations for green infrastructure provision, and standards adopted for green infrastructure provision in relation to population or housing growth.

## Stakeholder Consultation

PUSH recognised that, as green infrastructure is a multi-layered concept, it is essential to seek and incorporate the views of a broad group of interested parties, from the landowning, economic, social, environmental, public, voluntary and private sectors.

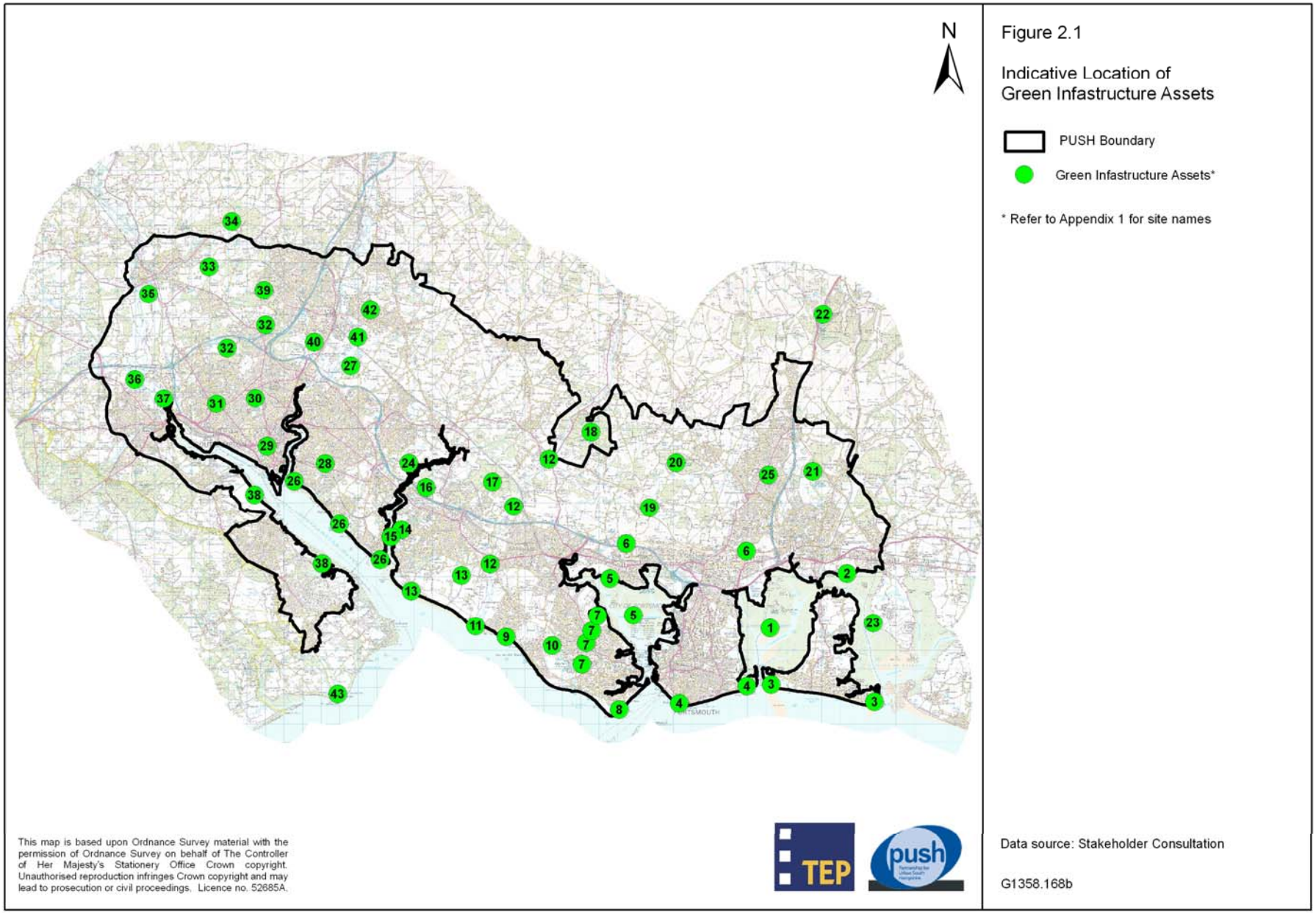
These workshops brought together stakeholders - offering an opportunity to consolidate and develop green infrastructure partnerships outside the traditional environmental sector and to develop networks that will be critical to the long-term success of this strategy.

The first workshop took place mid way through the research phase. Its objectives were to gain data and gather views, knowledge and experience of key stakeholders, through:

a. Consultation on green infrastructure functions, scope and issues
b. Sharing professional ideas and information about environmental initiatives
c. Working up definitions and a vision for green infrastructure.

A second workshop provided stakeholders with a summary of the research report and highlighted the issues for green infrastructure planning that needed to be addressed in the strategy. This included the funding and delivery of green infrastructure, how the strategy should promote and enable strong delivery, and how green infrastructure zoning might be continued in Local Development Frameworks.

A third workshop tested the key issues and recommendations proposed in this strategy. The stakeholders who contributed to the process are listed at Appendix 2, and reports from all three workshops are available as separate reports.


N
Figure 2.1
Indicative Location of
Green Infastructure Assets
PUSH Boundary
Green Infastructure Assets*
* Refer to Appendix 1 for site names
This map is based upon Ordnance Survey material with the permission of Ordnance Survey on behalf of The Controller of Her Majesty's Stationery Office Crown copyright. Unauthorised reproduction infringes Crown copyright and may lead to prosecution or civil proceedings. Licence no. 52685A.
TEP
push
Data source: Stakeholder Consultation
G1358.168b


# Section 3

# Green Infrastructure in South Hampshire: The Evidence Base

## Settlement Pattern and Land Use

The South Hampshire sub region is located between the New Forest National Park, the proposed South Downs National Park and Chichester Harbour Area of Outstanding natural Beauty (AONB). It covers the entire local authority areas of Eastleigh, Fareham, Gosport, Havant, Portsmouth and Southampton, and parts of East Hampshire, New Forest, Test Valley and Winchester. It is home to one million people[9], concentrated in and around the main cities of Southampton and Portsmouth and other adjoining major settlements of Eastleigh, Fareham, Gosport, Havant and Waterlooville, which together form the largest urban area in the South East. The coastal strip is described in the South East Plan as "an almost continuous spread of loose knit suburban development adjacent to the Solent coastline". North of the coastal settlements is the extensive wooded farmland of the Forest of Bere.

Figure 3.1 shows the main planning and land use designations, noting particularly the urban areas, adjoining National Parks and the internationally protected coastline.

## Key Facts & Figures

- Total land area – 57,695ha, of which 51,203ha can be considered as "green infrastructure resource" (green spaces, gardens and water)

- Open space is not systematically categorised but broadly falls into the following categories (hectares / %age total PUSH land area):
  - inland water 756 ha / 1.3% area
  - private gardens 9,485 ha / 16% area
  - urban green spaces[10] 5,282 ha / 9.2% area
  - rural green spaces[11] 35,680 ha / 62% area

- 10,797 ha are designated as Sites of Special Scientific Interest (SSSI) (including areas below mean high water, not all of which are included in the land area above)

- 6,499 ha are designated as Sites of (County) Importance for Nature Conservation (there is some overlap with the SSSI area noted above)

- 6,685ha is woodland (both rural and urban woodland)

- Greenspace per head of population in Portsmouth and Southampton urban areas is around 200m$^2$ and is below the English city average of 414m$^2$ per head; although is broadly similar to other south coast city regions.

## Socio-economic Profile

South Hampshire is a relatively affluent area, although its economic growth rate has (for the last two decades) been lower than the rest of the region. However, the growth of the service, retail and leisure sectors (linked to South Hampshire's close proximity to London, excellent transport links and considerable natural assets) are contributing to improving economic prospects.

The area has pockets of social and economic problems. According to the 2004 Indices of Deprivation, within the PUSH boundary there are a number of Super Output Areas (SOAs) which are amongst the most deprived ten percent nationwide, with the most significant in central and western Southampton, parts of Eastleigh, the core and western parts of Gosport, parts of central and north western Portsmouth, parts of Portchester, and parts of Leigh Park in Havant. Similarly, there are areas where unemployment is more than double the national levels.

[9] HCC 2006 estimate was 1,000,521

[10] Urban green spaces include parks, church yards, allotments, cemeteries, road verges, woodlands and other incidental open space including some urban fringe farmland.

[11] Rural green spaces include predominantly farmland and woodland but road and rail verges along with small parks and open spaces in rural villages and settlements may also be included.

The Census 2001 showed that the levels of health within the sub-region were better than the national average, although there are some areas where a disproportionately large number of people stated that they were in 'not good health'. As an example of this disparity in Portsmouth, there can be as much as a 9 year difference in life expectancy between wards. Figure 3.2 shows the Health Domain of IMD 2004, indicating (in red) hotspots of poor health.

## Population change

South Hampshire expects a population increase of more than 7% (over 73,500 people) from 2006 to 2026[12]. Figure 3.3 shows, in a very indicative form, the likely spatial distribution of new housing (a total of 80,000 homes).

Proposals[13] concentrate 60% of development on brownfield sites (in line with national and South East Plan targets). However, there is also some greenfield development proposed, as well as significant infill in urban areas, resulting in urban densification and expansion of the built environment. Two Strategic Development Areas are proposed on greenfield (at North Fareham and N/NE of Hedge End), and one major development area (West of Waterlooville) is planned.

The early impacts of growth will be felt within existing urban areas, since it is not proposed to use the main greenfield sites until after 2016.

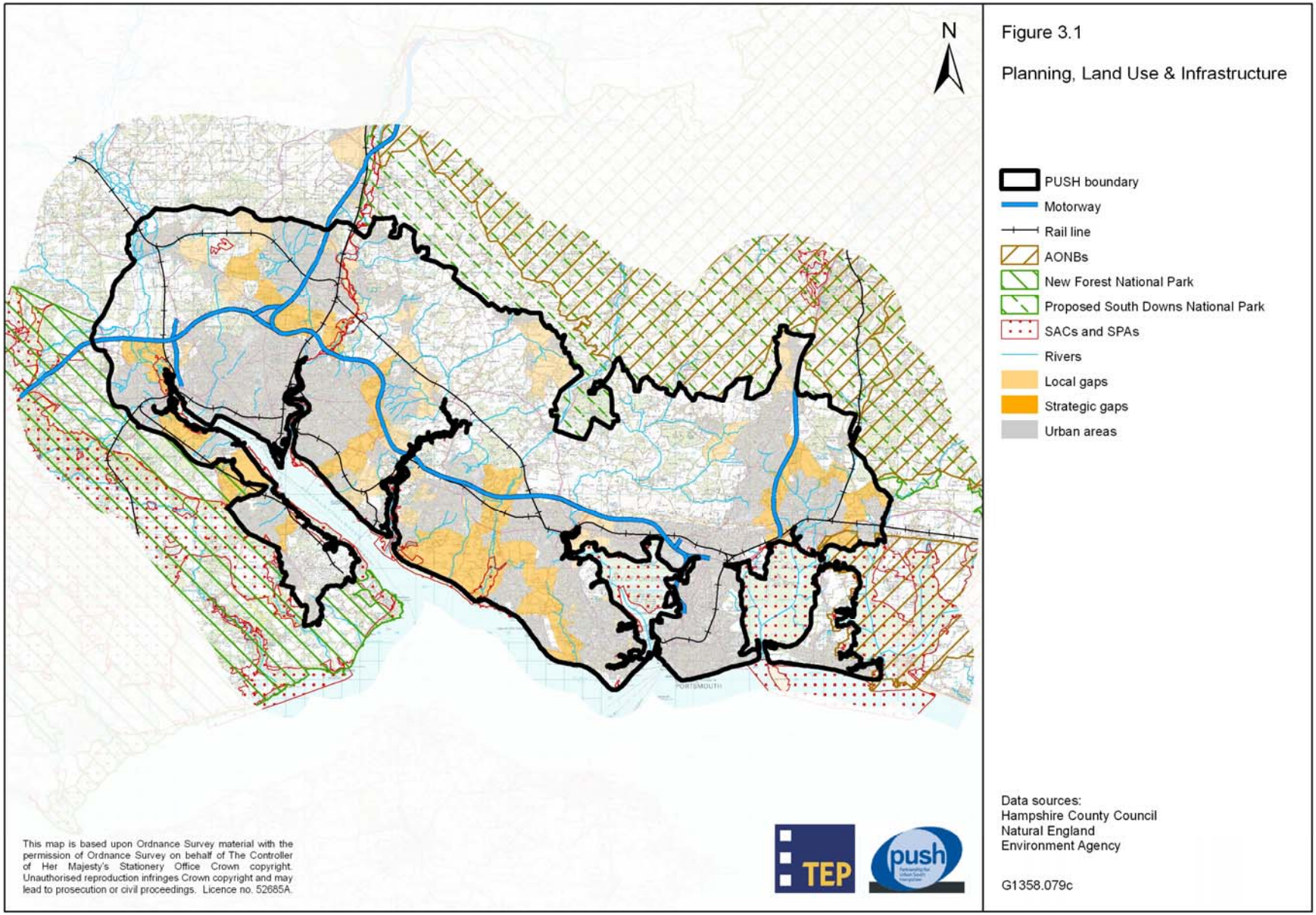
The research modelled the spatial distribution of existing and projected population to derive an indication of which areas are closest to greatest numbers of people; a coarse proxy for day-to-day population pressure, and an indication of where provision of green infrastructure assets can meet general recreational needs. Figures 3.4 and 3.5 show how population pressures are projected to increase over time, showing in red the areas within 20 minutes drivezone of >600,000 people (Figure 3.4 maps 2006 population and Figure 3.5 projects to 2026).

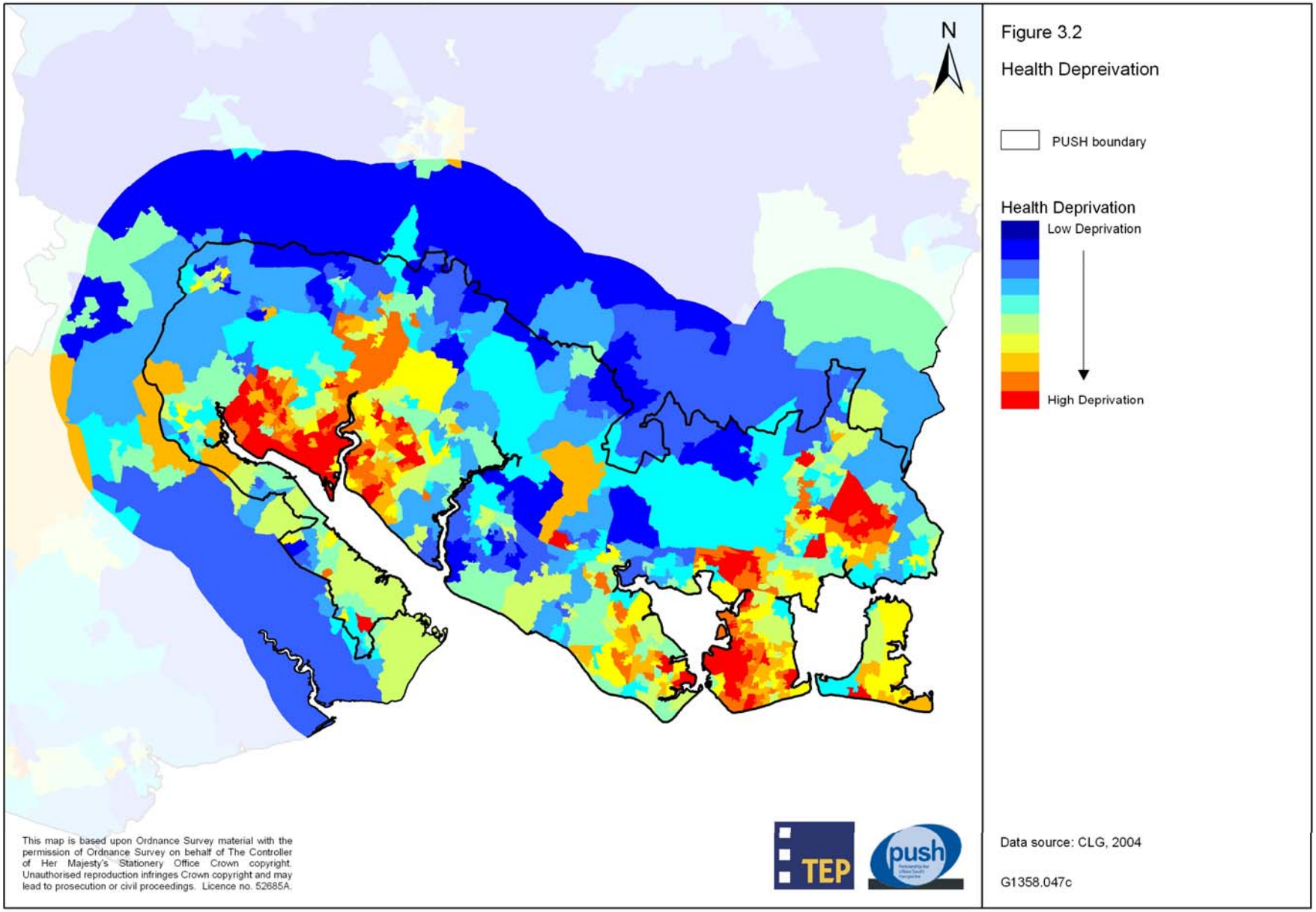
Although the projected population increase is 7%, the impact of this will not be equally spread:

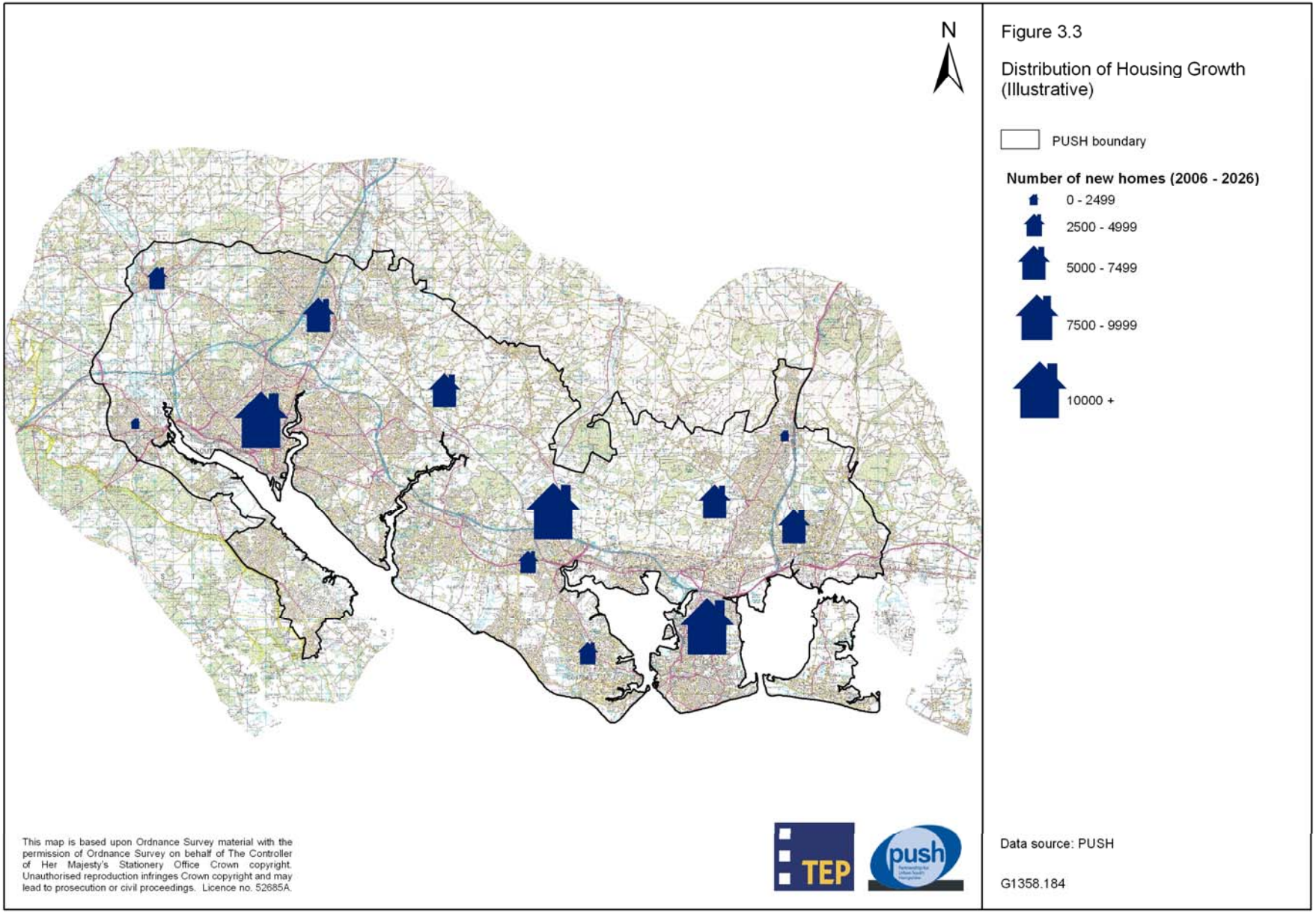
- Areas around the north and east of Southampton, Fareham and Portsmouth are likely to experience a >10% increase in population pressure, with some areas likely to experience >20% increase in pressure
- Areas accessible within a 20 minute drive for over 600,000 people will include Fareham, Portchester, East Southampton, much of Eastleigh borough and Portsdown Hill and North Fareham Downs, The Meon Valley, Old Burlesdon, Hound and Hamble Coastal Fringe and the Forest of Bere.
- The figures show that population in the New Forest waterside towns will remain below 25,000 in 2026, and Hampshire County Council population projections actually forecast a decrease in population for the period.
- The South Downs is likely to come under increased population pressure from later growth.

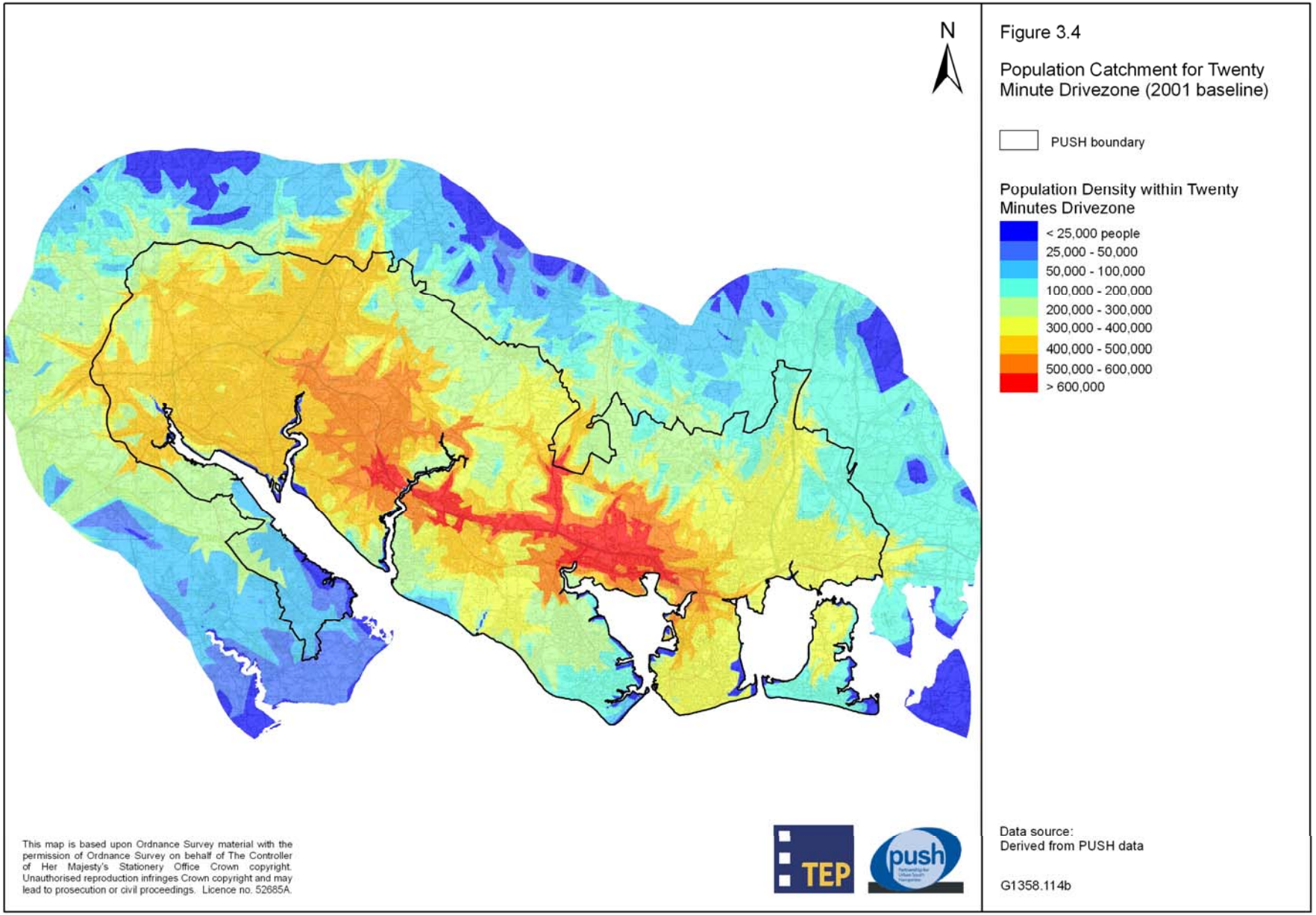
[12] Hampshire County Council Population Statistics: Long Term Projections for Hampshire from 2001 -2026

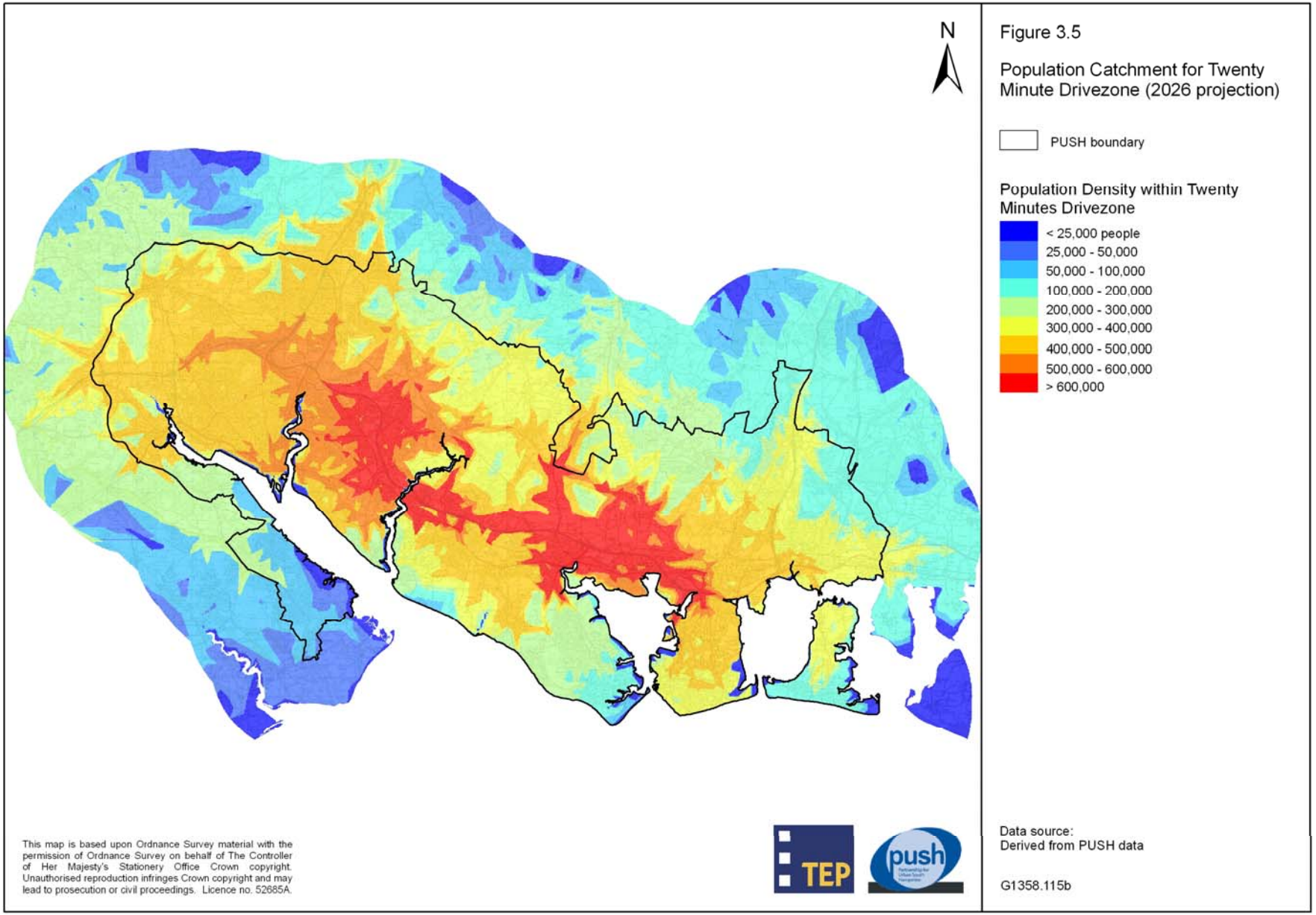
[13] South Hampshire Sub Regional Strategy Background Document: Rationale for the Housing Distribution (2006) PUSH – figures shown based on maximum for urban potential and minimum for new greenfield


N
Figure 3.1
Planning, Land Use & Infrastructure
PUSH boundary
Motorway
Rail line
AONBs
New Forest National Park
Proposed South Downs National Park
SACs and SPAs
Rivers
Local gaps
Strategic gaps
Urban areas
Data sources:
Hampshire County Council
Natural England
Environment Agency
G1358.079c
This map is based upon Ordnance Survey material with the permission of Ordnance Survey on behalf of The Controller of Her Majesty's Stationery Office Crown copyright. Unauthorised reproduction infringes Crown copyright and may lead to prosecution or civil proceedings. Licence no. 52685A.
TEP
push


N
Figure 3.2
Health Depreivation
PUSH boundary
Health Deprivation
Low Deprivation
High Deprivation
This map is based upon Ordnance Survey material with the permission of Ordnance Survey on behalf of The Controller of Her Majesty's Stationery Office Crown copyright. Unauthorised reproduction infringes Crown copyright and may lead to prosecution or civil proceedings. Licence no. 52685A.
TEP
push
Data source: CLG, 2004
G1358.047c


N
Figure 3.3
Distribution of Housing Growth (Illustrative)
PUSH boundary
Number of new homes (2006 - 2026)
0 - 2499
2500 - 4999
5000 - 7499
7500 - 9999
10000 +
This map is based upon Ordnance Survey material with the permission of Ordnance Survey on behalf of The Controller of Her Majesty's Stationery Office Crown copyright. Unauthorised reproduction infringes Crown copyright and may lead to prosecution or civil proceedings. Licence no. 52685A.
TEP
push
Data source: PUSH
G1358.184


N
Figure 3.4
Population Catchment for Twenty Minute Drivezone (2001 baseline)
PUSH boundary
Population Density within Twenty Minutes Drivezone
< 25,000 people
25,000 - 50,000
50,000 - 100,000
100,000 - 200,000
200,000 - 300,000
300,000 - 400,000
400,000 - 500,000
500,000 - 600,000
> 600,000
This map is based upon Ordnance Survey material with the permission of Ordnance Survey on behalf of The Controller of Her Majesty's Stationery Office Crown copyright. Unauthorised reproduction infringes Crown copyright and may lead to prosecution or civil proceedings. Licence no. 52685A.
TEP
push
Data source:
Derived from PUSH data
G1358.114b


N
Figure 3.5
Population Catchment for Twenty Minute Drivezone (2026 projection)
PUSH boundary
Population Density within Twenty Minutes Drivezone
< 25,000 people
25,000 - 50,000
50,000 - 100,000
100,000 - 200,000
200,000 - 300,000
300,000 - 400,000
400,000 - 500,000
500,000 - 600,000
> 600,000
This map is based upon Ordnance Survey material with the permission of Ordnance Survey on behalf of The Controller of Her Majesty's Stationery Office Crown copyright. Unauthorised reproduction infringes Crown copyright and may lead to prosecution or civil proceedings. Licence no. 52685A.
TEP
push
Data source:
Derived from PUSH data
G1358.115b

## Environmental Character

The area is generally low-lying and south-facing. Coast, water and rivers are important in the landscape. Figure 3.6 shows the underlying topography and hydrology, while Figure 3.7 shows river catchments, indicating floodzones and water quality.

Although this is an urbanised sub-region, 16% of South Hampshire's landmass[14] has habitats of biodiversity priority, compared to an English average of 14% (Figure 3.8). Hampshire as a whole has the greatest species diversity of any county in England due to its mild southern climate, and varied landscape which supports a great diversity of habitats. Hampshire also includes the New Forest – the greatest area of semi wilderness left in lowland England.

These habitats support a great array of wild plants and animals – over 8,000 species were recorded by 2005. Biodiversity conservation contributes to national and regional strategies and the sub-region can be an exemplar of how to integrate, conserve and increase biodiversity in the context of growth (Figure 3.9).

South Hampshire has a highly distinctive character, recognised widely as being an attractive landscape with a clear sense of place. This is a landscape with a high degree of sensitivity due to its cultural and natural significance; it is bordered and crossed by internationally and nationally important coastal and river habitats, and supports a high concentration of national priority biodiversity habitats: to the north is the East Hampshire Area of Outstanding Natural Beauty (AONB), forming part of the proposed South Downs National park; to the south east is the Chichester Harbour AONB; to the south west is the New Forest National Park.

South Hampshire also has a diverse historic character. The incredible diversity of the landscape, coupled with the extensive and varied ways in which man has used the area, means that virtually all the 79 Hampshire Historic landscape types are represented at some place in the sub region,. The Hampshire Historic Landscape Character Assessment[15] (HHLCA) describes the features that are particularly characteristic of South Hampshire, making a provisional characterisation using seven broad groupings of historic type (as shown in Figure 3.10):

- Heathland (only small areas in the area);
- Woodland, parks and assarts;
- Open small fields and horticulture;
- Large fields and downland;
- Valley floor;
- The coastal strip;
- Settlement, recreation, defence, industry and communication

The culture and heritage represented by the built environment is key to quality of life in the area. Between the South Downs and the coast, the area is characterised by small scale mixed farmland and woodland of medieval origin, interspersed with small market towns and villages and historic parks and gardens while the more urban areas contain numerous conservation areas and historic buildings. The maritime heritage of Southampton and Portsmouth is world renowned, and the sailing waters of the Solent are internationally famous. All this contributes to a high quality of life and a vibrant local economy, linked in to the natural advantages of the area.

South Hampshire's Landscape Character Areas are shown in Figure 3.11. The intense pressure on townscape and landscape arising from development and prosperity remains as a very significant threat to landscape character and quality – not so much from whole-scale rapid change; but rather from the cumulative effects of local changes. Where development is designed into landscapes where pre-existing elements such as mature trees, boundaries and landmark buildings have been retained, there has been better assimilation of the development.

[14] i.e. only land above high-water mark

[15] Scott Wilson (1999) for Hampshire County Council

As the landscape is generally well-wooded, the visual influence of urban infrastructure is often ameliorated. However, there are several unfortunate examples, particularly from the period 1960s to 1980s, of "anytown" development, insensitive to place. The influence of road and power transmission infrastructure (over which there is less local planning control) is in places dominant and has introduced an urbanising influence which over-rides character.

## Environmental Condition

Environmental condition mapping allowed us to identify areas which have been damaged by development or agricultural intensification - as well as identifying areas where there is a very limited quantity of green infrastructure resource. Environmental condition mapping allows a broad identification of areas where environments are under greatest stress (Figure 3.12). Examples include Portsdown and Forest of Bere (most likely as a result of the influences of urbanisation on habitat, air and water quality) and the Test and Itchen valleys (due to the unfavourable condition of the SSSIs).

Urban areas have lower environmental quality. Mapping of local environmental quality (LEQ) in urban environments is the subject of much more detailed study by CLG, Environment Agency and others, who include measures associated with community perceptions (such as feelings of safety, presence and persistence of fly tipping, stewardship of parks and open spaces). Given future urbanisation and land use pressures associated with increasing prosperity, areas of poor environmental condition need healthy green infrastructure– particularly important where these areas coincide with community needs.

## Existing and Emerging Environmental Initiatives

Many environmental infrastructure initiatives are already in place. Some of the most significant are listed below. The green infrastructure strategy builds from this activity. Its role is to provide a vision for how existing and potential environmental activity can deliver maximum public benefit.

**Landscape-scale management**: The New Forest National Park, the South Downs proposed National Park and the Chichester Harbour Area of Outstanding Natural Beauty are reservoirs of natural and cultural heritage and are managed with objectives of landscape protection, enhancement and sensitive public access. They are exemplars of multi-purpose management of working landscapes.

**Coastal Management**: The Solent Forum is a coastal partnership which provides advice and networking for the multitude of agencies responsible for managing marine and coastal activity. There are many statutory plans, policies and obligations affecting the coast. Some of the most significant for green infrastructure are the Shoreline Management Planning process, led by the Environment Agency, PUSH's ongoing review of coastal defence infrastructure, Hampshire County Council's Countryside Access and Recreation Network and Portsmouth's Seafront Initiative. The activities of he River Hamble Harbour Authority and the Hamble Estuary Partnership are an interesting example, seeking to increase sensitive water use while building biodiversity and protecting heritage.

**Land Stewardship**: A substantial area of countryside is in public or conservation-oriented ownership. This includes Hampshire County Council farmland, the Forestry Commission and the Hampshire Wildlife Trust who manage their estate for some green infrastructure functions. Most of the County farms are managed under "Stewardship" arrangements, as are some important private estates such as Broadlands and Southwick. Much of the open land between our settlements is designated as "Gap", but there is no countryside management forum for landowners in the Gaps.

**Local Authority Service Delivery**: All the PUSH Authorities have Strategic Partnerships which are committed in different ways to protection and healthy use of greenspace. There are some excellent examples of parks and gardens being managed for multiple functions, with high levels of community commitment.

**Sustainability Advocates**: PUSH's sustainability group has a commitment to ensure growth in the area is "smart"; through advice and advocacy. It is supported by academic bodies including the Environment Centre, and relevant government agencies. As an example, Hampshire County Council has recently completed an inquiry into the impact of climate change, including the effects on landscape and biodiversity.

**Action by Individuals and Communities**: South Hampshire has very high levels of volunteering and civic pride. Numerous individuals and organisations are devoted to maintaining the fabric of our urban and rural areas.

## Greenspace Deficits

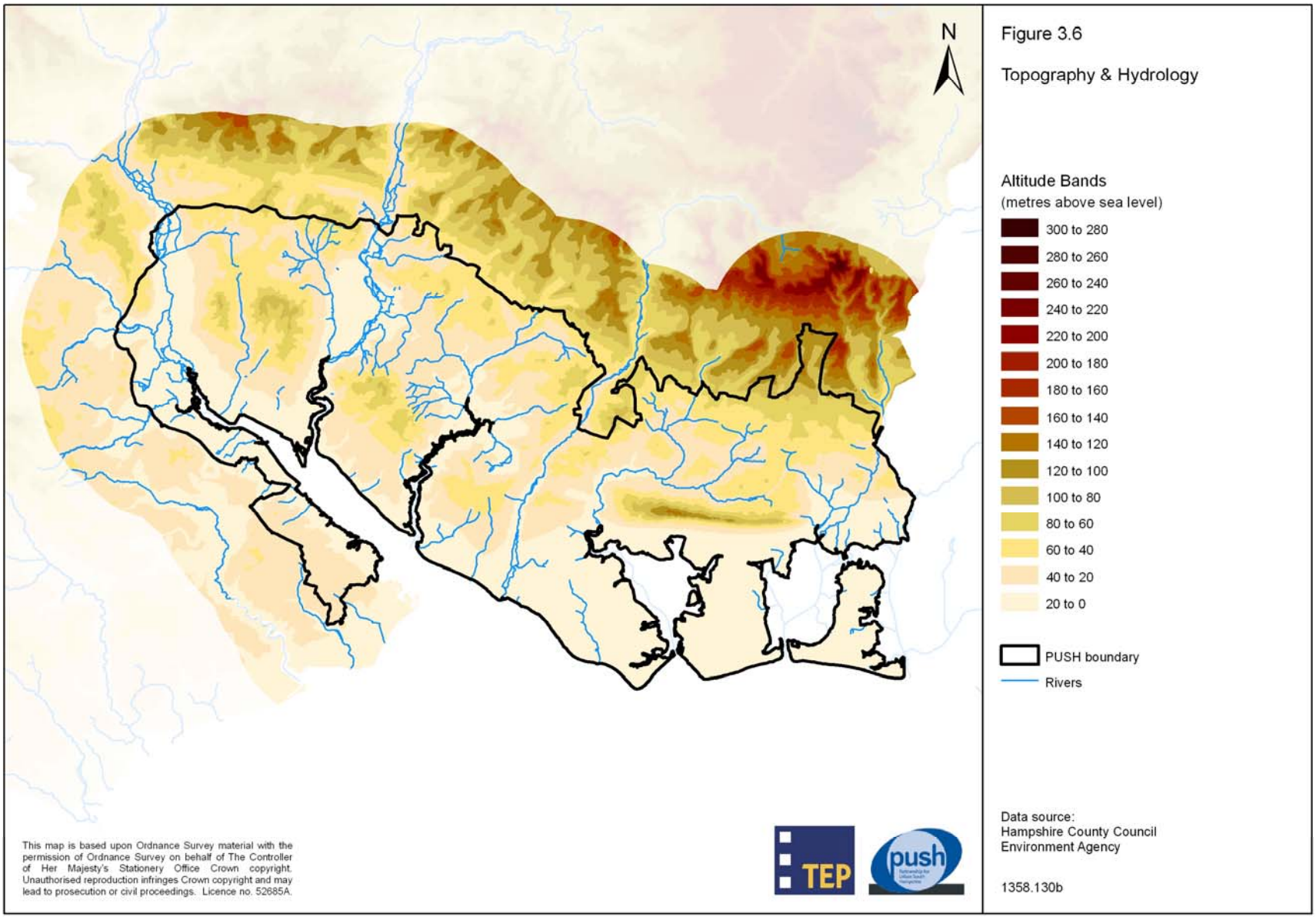
The green space per head of population in Portsmouth (189 square meters) and Southampton (207 square meters) is already well below the English city average of 414sq m per head of population – which, with an increasing population, could decline to between 156 and 174 sq m per head. Similarly whilst the coastline may be able to act as "surrogate" green space, most of the population live more than 500m away from accessible coastline.

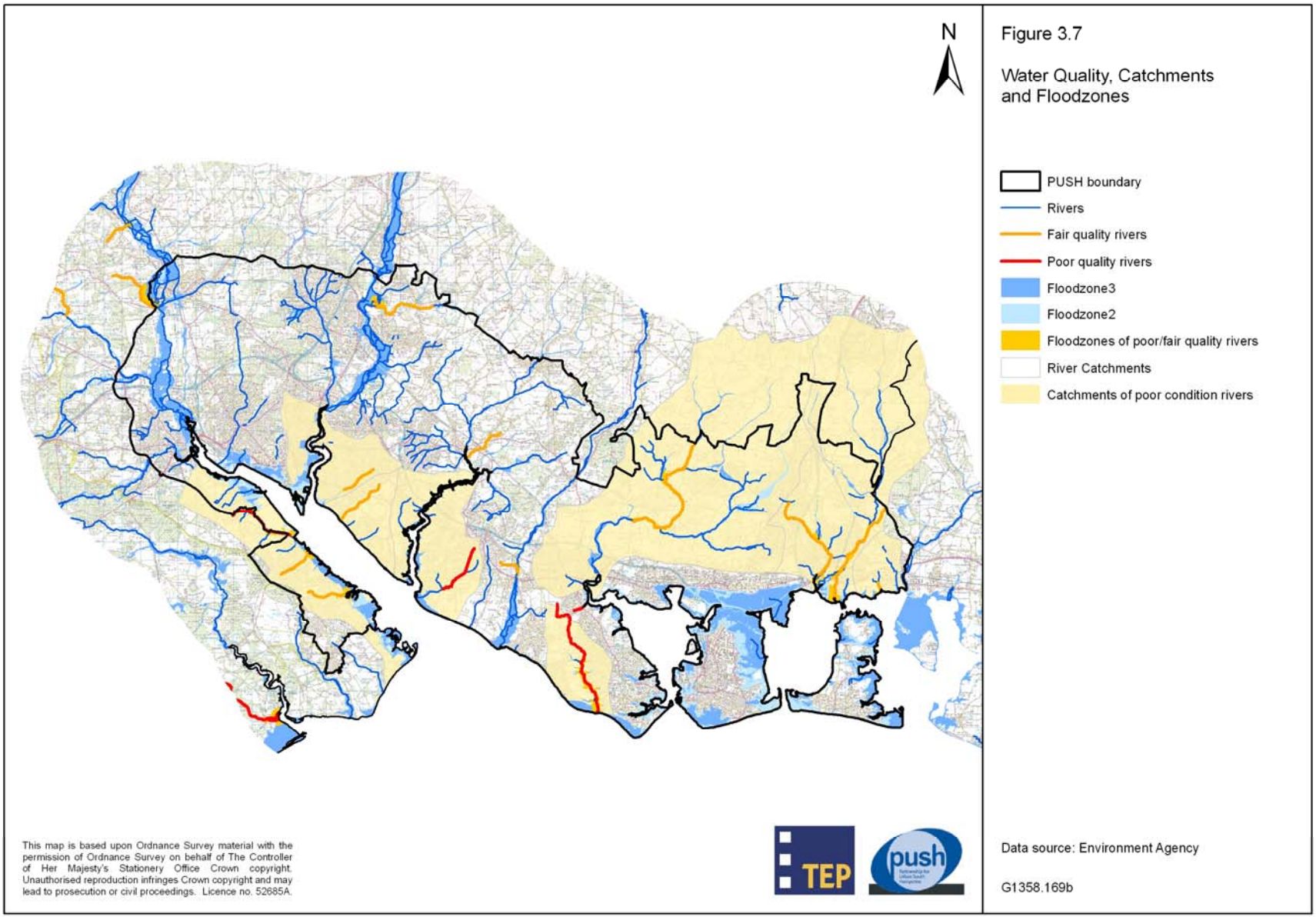
The Forestry Commission and Natural England carried out an analysis for the whole of the South East against Natural England's Accessible Natural Greenspace Standards (ANGSt), which state that:

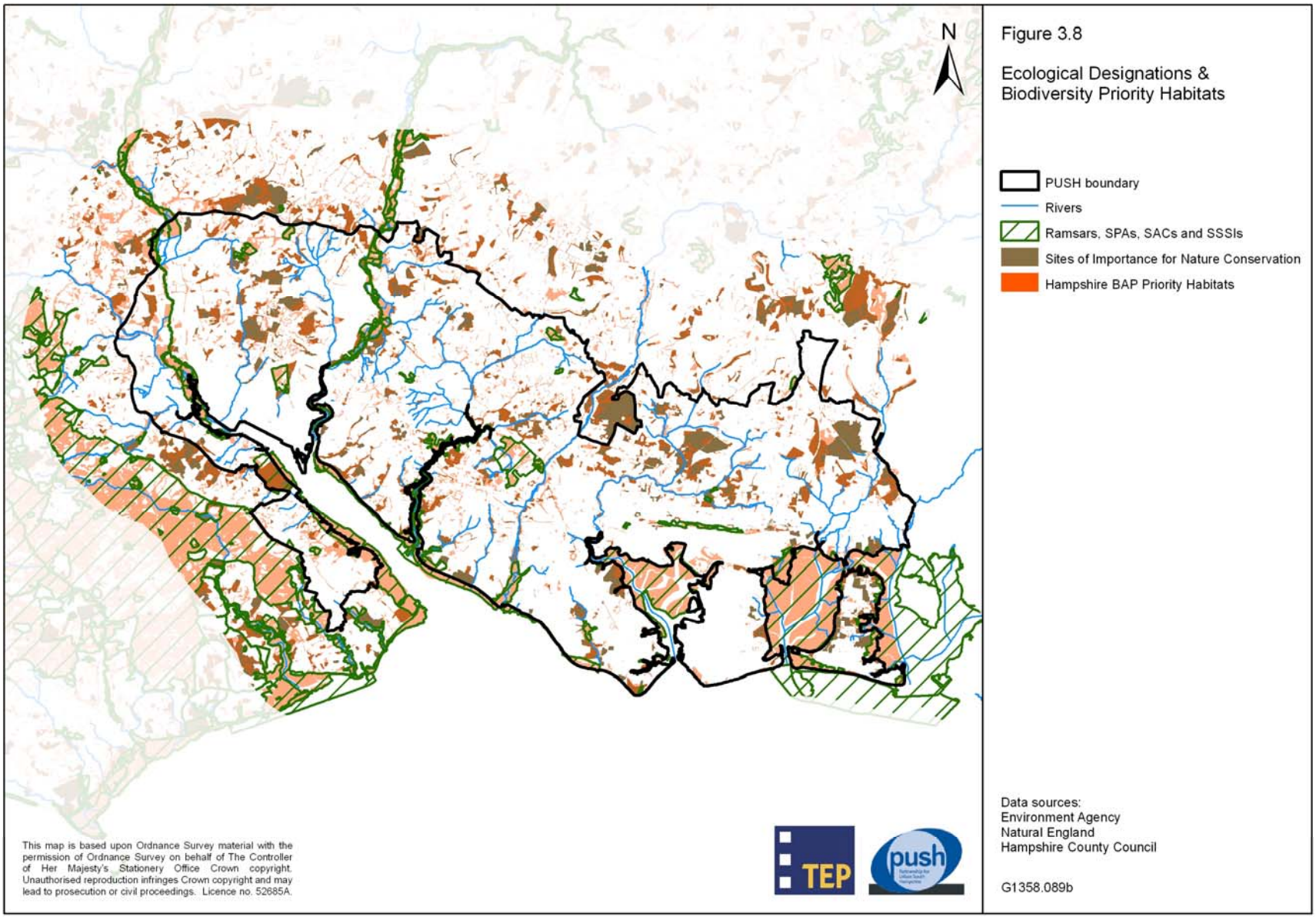
- No person should live more than 300m from their nearest area of natural greenspace of at least 2ha in size
- There should be at least one accessible 20ha site within 2km of home
- There should be one accessible 100ha site within 5km of home
- There should be one accessible 500ha site within 10km of home

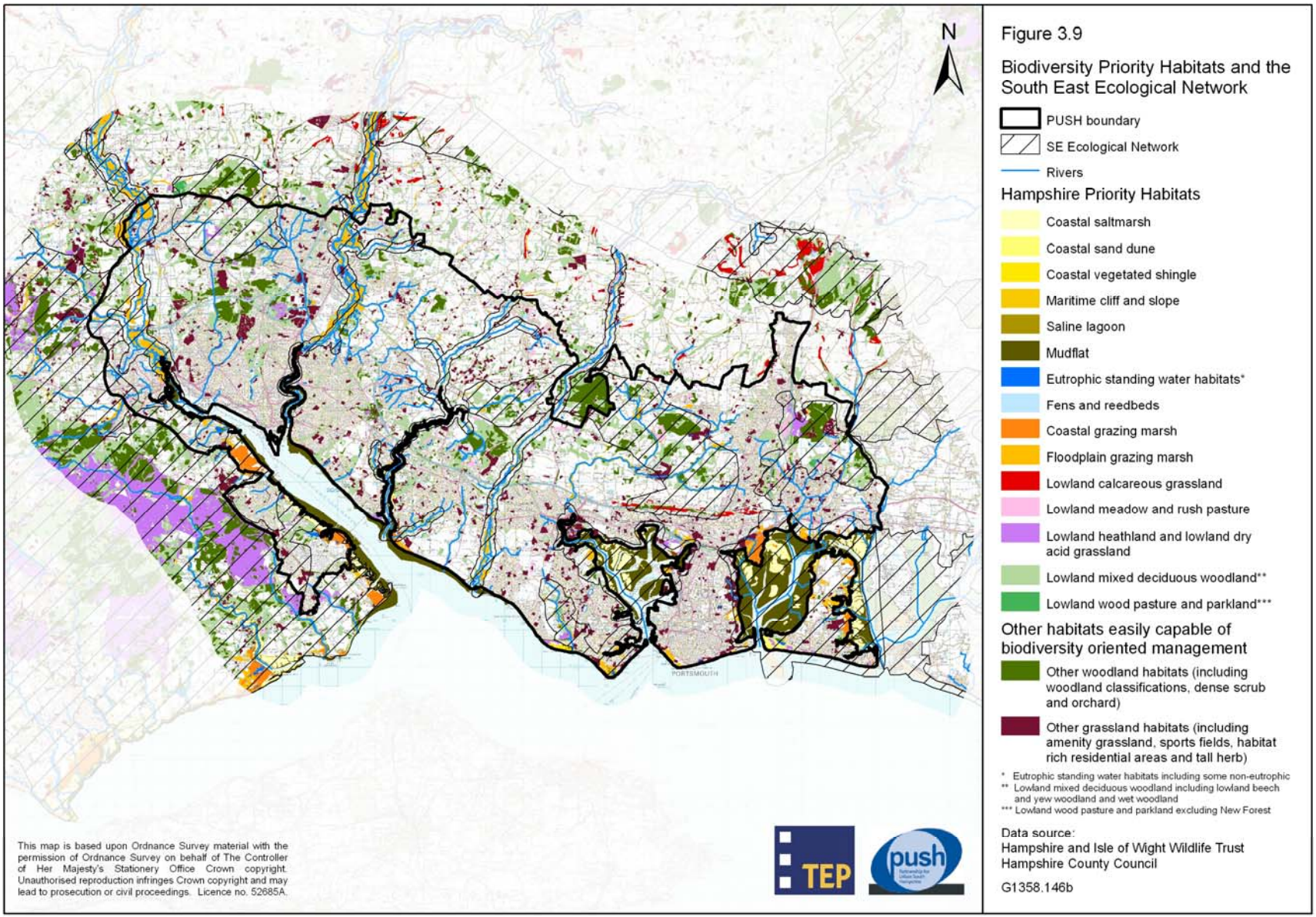
The study found that most Authorities within PUSH are better served than average within the sub-region for greenspaces over 20ha in size, but not so well served for local greenspace. Further analysis by TEP found that there are several areas within PUSH that have a local deficit of greenspaces, particularly in urban areas such as Gosport, Portsmouth and Southampton. These are of particular concern because they frequently coincide with south Hampshire's pockets of health and skills deprivation. Similarly neither of the SDAs currently meet neighbourhood ANGSt requirements, and both lie in close proximity to areas of skills and health deprivation (see figure 3.13).

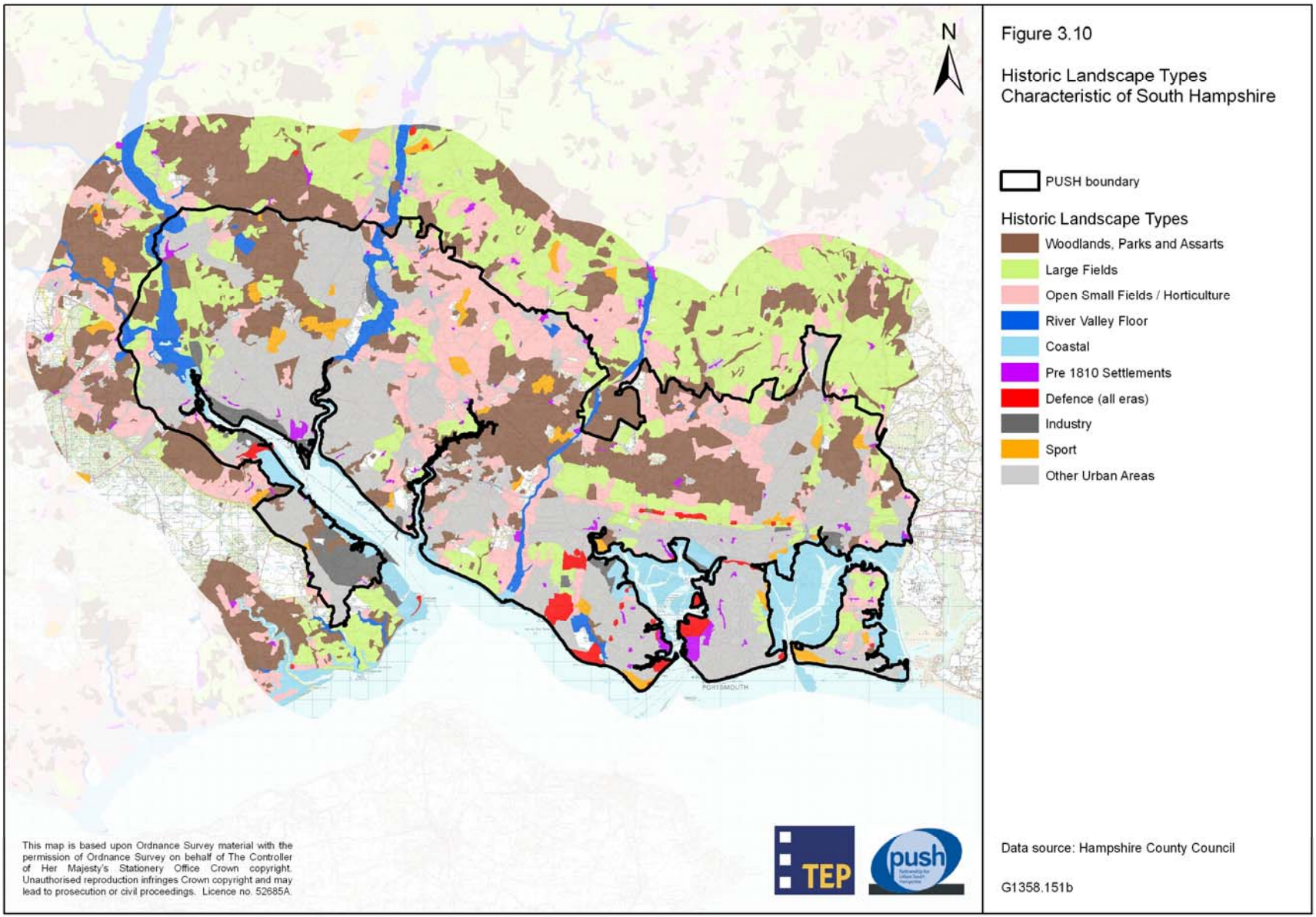
A priority for the PUSH area may therefore be targeting provision of new and/or enhanced green spaces where there is socio-economic deprivation to meet both environmental and community needs.

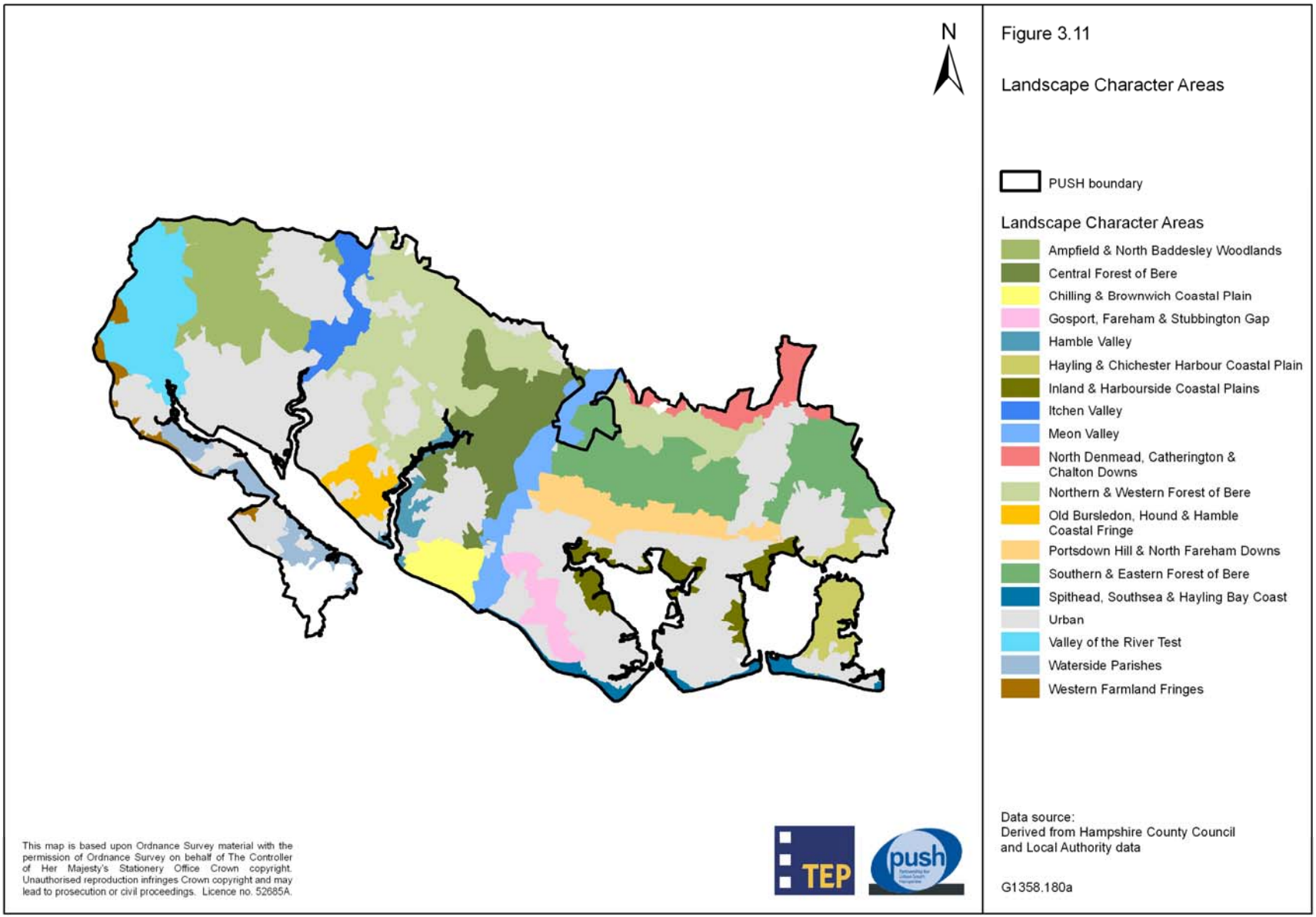

N
Figure 3.6
Topography & Hydrology
Altitude Bands
(metres above sea level)
300 to 280
280 to 260
260 to 240
240 to 220
220 to 200
200 to 180
180 to 160
160 to 140
140 to 120
120 to 100
100 to 80
80 to 60
60 to 40
40 to 20
20 to 0
PUSH boundary
Rivers
Data source:
Hampshire County Council
Environment Agency
1358.130b
This map is based upon Ordnance Survey material with the permission of Ordnance Survey on behalf of The Controller of Her Majesty's Stationery Office Crown copyright. Unauthorised reproduction infringes Crown copyright and may lead to prosecution or civil proceedings. Licence no. 52685A.
TEP
push


N
Figure 3.7
Water Quality, Catchments and Floodzones
PUSH boundary
Rivers
Fair quality rivers
Poor quality rivers
Floodzone3
Floodzone2
Floodzones of poor/fair quality rivers
River Catchments
Catchments of poor condition rivers
This map is based upon Ordnance Survey material with the permission of Ordnance Survey on behalf of The Controller of Her Majesty's Stationery Office Crown copyright. Unauthorised reproduction infringes Crown copyright and may lead to prosecution or civil proceedings. Licence no. 52685A.
TEP
push
Data source: Environment Agency
G1358.169b


N
Figure 3.8
Ecological Designations &
Biodiversity Priority Habitats
PUSH boundary
Rivers
Ramsars, SPAs, SACs and SSSIs
Sites of Importance for Nature Conservation
Hampshire BAP Priority Habitats
Data sources:
Environment Agency
Natural England
Hampshire County Council
G1358.089b
This map is based upon Ordnance Survey material with the permission of Ordnance Survey on behalf of The Controller of Her Majesty's Stationery Office Crown copyright. Unauthorised reproduction infringes Crown copyright and may lead to prosecution or civil proceedings. Licence no. 52685A.
TEP
push


N
Figure 3.9
Biodiversity Priority Habitats and the South East Ecological Network
PUSH boundary
SE Ecological Network
Rivers
Hampshire Priority Habitats
Coastal saltmarsh
Coastal sand dune
Coastal vegetated shingle
Maritime cliff and slope
Saline lagoon
Mudflat
Eutrophic standing water habitats*
Fens and reedbeds
Coastal grazing marsh
Floodplain grazing marsh
Lowland calcareous grassland
Lowland meadow and rush pasture
Lowland heathland and lowland dry acid grassland
Lowland mixed deciduous woodland**
Lowland wood pasture and parkland***
Other habitats easily capable of biodiversity oriented management
Other woodland habitats (including woodland classifications, dense scrub and orchard)
Other grassland habitats (including amenity grassland, sports fields, habitat rich residential areas and tall herb)
* Eutrophic standing water habitats including some non-eutrophic
** Lowland mixed deciduous woodland including lowland beech and yew woodland and wet woodland
*** Lowland wood pasture and parkland excluding New Forest
Data source:
Hampshire and Isle of Wight Wildlife Trust
Hampshire County Council
G1358.146b
This map is based upon Ordnance Survey material with the permission of Ordnance Survey on behalf of The Controller of Her Majesty's Stationery Office Crown copyright. Unauthorised reproduction infringes Crown copyright and may lead to prosecution or civil proceedings. Licence no. 52685A.
TEP
push


N
Figure 3.10
Historic Landscape Types Characteristic of South Hampshire
PUSH boundary
Historic Landscape Types
Woodlands, Parks and Assarts
Large Fields
Open Small Fields / Horticulture
River Valley Floor
Coastal
Pre 1810 Settlements
Defence (all eras)
Industry
Sport
Other Urban Areas
PORTSMOUTH
This map is based upon Ordnance Survey material with the permission of Ordnance Survey on behalf of The Controller of Her Majesty's Stationery Office Crown copyright. Unauthorised reproduction infringes Crown copyright and may lead to prosecution or civil proceedings. Licence no. 52685A.
TEP
push
Data source: Hampshire County Council
G1358.151b


N
Figure 3.11
Landscape Character Areas
PUSH boundary
Landscape Character Areas
Ampfield & North Baddesley Woodlands
Central Forest of Bere
Chilling & Brownwich Coastal Plain
Gosport, Fareham & Stubbington Gap
Hamble Valley
Hayling & Chichester Harbour Coastal Plain
Inland & Harbourside Coastal Plains
Itchen Valley
Meon Valley
North Denmead, Catherington & Chalton Downs
Northern & Western Forest of Bere
Old Bursledon, Hound & Hamble Coastal Fringe
Portsdown Hill & North Fareham Downs
Southern & Eastern Forest of Bere
Spithead, Southsea & Hayling Bay Coast
Urban
Valley of the River Test
Waterside Parishes
Western Farmland Fringes
This map is based upon Ordnance Survey material with the permission of Ordnance Survey on behalf of The Controller of Her Majesty's Stationery Office Crown copyright. Unauthorised reproduction infringes Crown copyright and may lead to prosecution or civil proceedings. Licence no. 52685A.
TEP
push
Data source:
Derived from Hampshire County Council and Local Authority data
G1358.180a

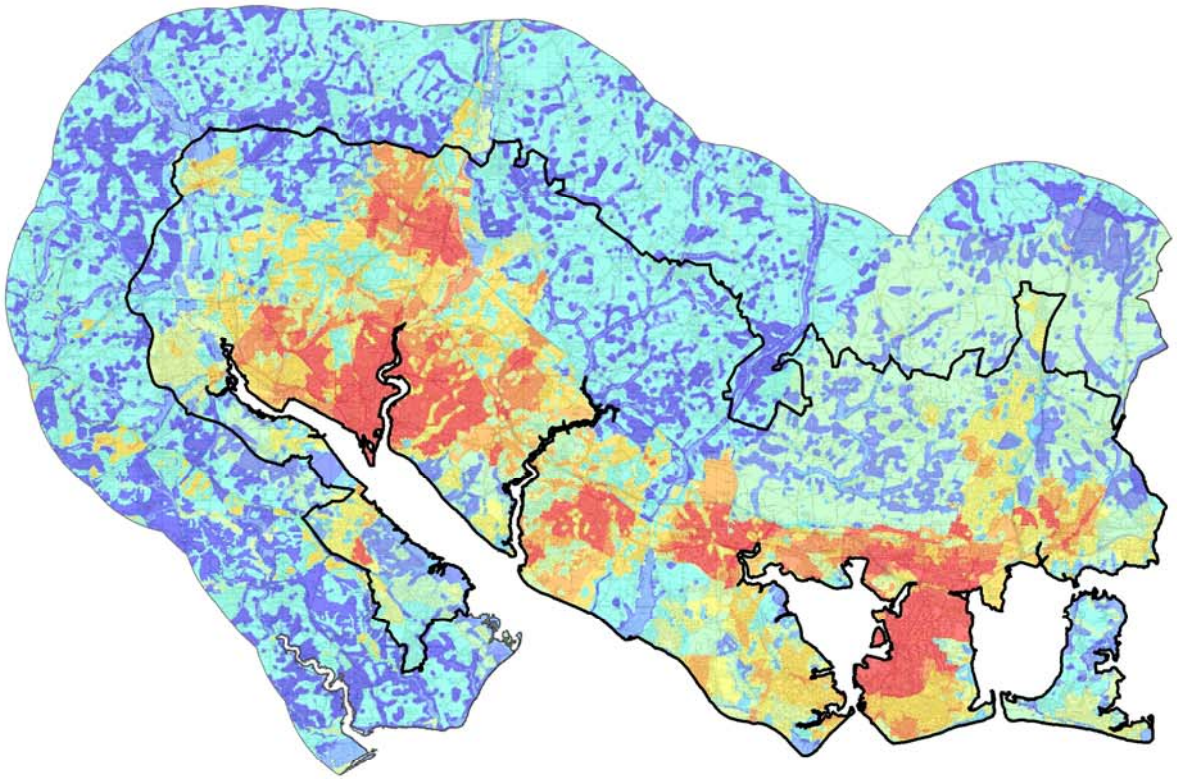


Figure 3.12

Environmental Condition

PUSH boundary

Environmental Condition

Poor

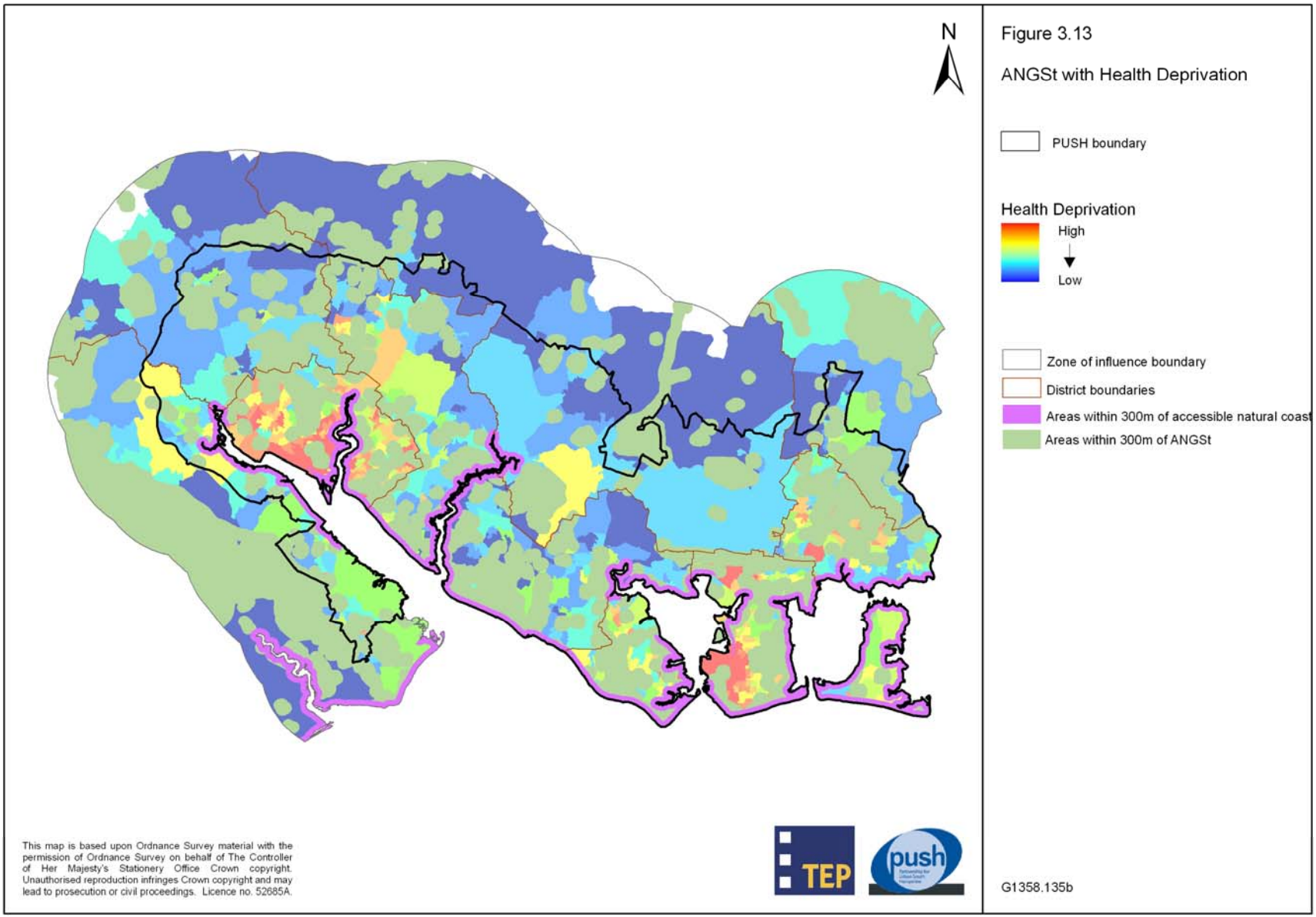
Good

N

This map is based upon Ordnance Survey material with the permission of Ordnance Survey on behalf of The Controller of Her Majesty's Stationery Office Crown copyright. Unauthorised reproduction infringes Crown copyright and may lead to prosecution or civil proceedings. Licence no. 52685A.

Data source:
Derived from data from Natural England, English Heritage, CLG, Environment Agency and Hampshire County Council,

G1358.173b


N
Figure 3.13
ANGSt with Health Deprivation
PUSH boundary
Health Deprivation
High
Low
Zone of influence boundary
District boundaries
Areas within 300m of accessible natural coast
Areas within 300m of ANGSt
This map is based upon Ordnance Survey material with the permission of Ordnance Survey on behalf of The Controller of Her Majesty's Stationery Office Crown copyright. Unauthorised reproduction infringes Crown copyright and may lead to prosecution or civil proceedings. Licence no. 52685A.
TEP
push
G1358.135b

# Section 4

## Developing a Green Infrastructure Vision & Recommendations for South Hampshire

## What are the Green Infrastructure functions in Urban South Hampshire?

Through consultation with stakeholders, 9 green infrastructure functions were identified as being critical, each of which delivers several public benefits:

*Recreation & Health*
- Improves physical and mental well-being
- Provides opportunities to exercise, play and engage in sport
- Provides accessibility (permeability) through the landscape, especially for walking, cycling & riding

*Biodiversity & Natural Resources*
- Increases opportunities for sustainable land management
- Safeguards priority habitats and species
- Restores ecological networks
- Conserves and improves soil quality
- Reduces the impact of poor air quality

*Landscapes*
- Safeguards the distinctive character and openness of "Strategic Gaps", "Local Gaps" and key views and vistas
- Safeguards the distinctive character of protected landscapes
- Safeguards and encourages beneficial use of local landscape resources (country parks, major urban parks, accessible woodlands, nature reserves, greenspaces of recognized amenity value)
- Creates attractive and distinctive settings for roads, transport and other infrastructure corridors, mitigating adverse visual impact

*Coast & Water*
- Improves Water quality
- Provides Coastal & Waterside recreation
- Protects Water resources & abstraction sites and brings them into multi-functional use

*Climate Change*
- Provides opportunities for renewable energy production
- Buffers/brakes flooding (fluvial & coastal); providing space for SUDS
- Provides shade and cooling to densely populated areas, especially those with vulnerable communities

*Cultural & Historic Environment*
- Conserves historic landscapes, archaeological assets, built heritage, cultural heritage
- Contributes to local distinctiveness through providing a setting for valuable cultural / historic environments

*Economic Development*
- Provides a setting to encourage inward investment
- Encourages retention of entrepreneurs and graduates
- Provides a setting and market for land-based tourism and social enterprises

*Social Inclusion*
- Provides a setting for community engagement & informal education
- Stimulates increase in training and skills
- Provides an outlet for community instincts for stewardship of the environment

*Productive Environments*
- Sustains a diverse land-based industry (farming, forestry, fisheries, tourism, equestrianism) where the quality of produce is welcomed by the large urban market nearby

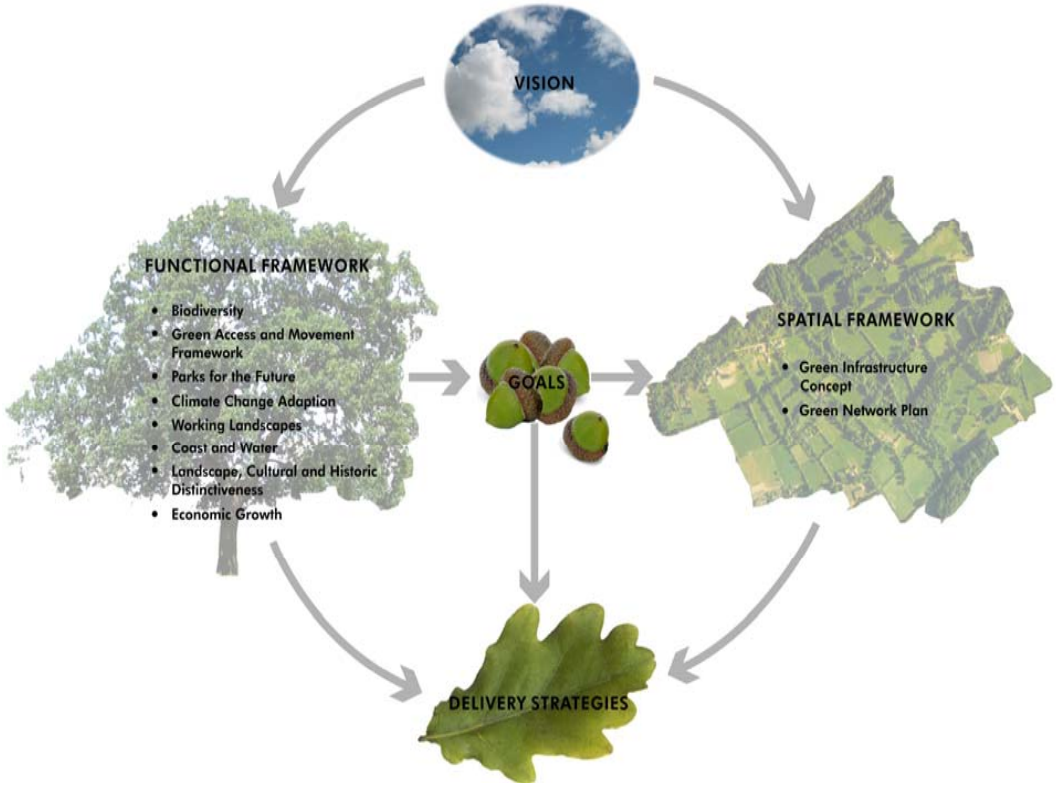
## Developing the Vision & Recommendations

It is not possible to bring every green infrastructure priority together in one key plan for various reasons:

- the abundance and complexity of data (e.g. it is not possible to map every feature of heritage or biodiversity or economic value onto one composite plan);

- some functions cannot be fully illustrated geographically (e.g. demographic priorities of doorstep greenspace for less mobile sectors of society);
- some strategies do not have a particular spatial priority within PUSH (e.g. the need for new development to comply with sustainability, climate and design coding);
- there is still a need to carry out research into spatial planning for some priorities (e.g. urban soil conservation areas, townscape assessments).

Our recommendations therefore consist of five inseparable components, as illustrated in the graphic below:




The **Vision** summarises how we wish our green infrastructure to function for the benefit of future generations and the environment itself.

We have then examined each green infrastructure function and developed a set of recommendations for each to maximise its potential. These 'functional frameworks' are presented as the ***suggested implementation programmes*** in the next Section, setting out for each function:

- The challenges to delivery;
- The vision;
- A spatial context – setting out which areas are most capable of providing the function and where the greatest public benefits would be derived from provision of green infrastructure;
- What strategies might be appropriate to maximise the function;
- Conceptual plans for the function.

Of course, the functions all deliver cross-cutting public benefits, and there are many overlaps across functions. Further, although multi-functionality is generally a desirable outcome, green infrastructure functions can interact, having a negative or positive impact on the public benefit potential of a site or area. With the restrictions above in mind, and accounting for such interactions between functions (particularly where public benefits are at risk or could be delivered more effectively and sensitively), for practical reasons we have arranged the functions under the following implementation programmes:

| Function: | *Implementation Programme*: |
|---|---|
| Biodiversity & Natural Resources | *Biodiversity* |
| Coast & Water | *Coast & Water* |
| Climate Change | *Climate Change Adaptation* |
| Economic Development | *Economic Growth* |
| Productive Environments | *Working Landscapes* |
| Social Exclusion } | { *Green Access & Movement* |
| Recreation & Health } | { *Parks for the Future* |
| Landscapes } | *Landscape, Culture & Heritage* |
| Cultural & Historic Environment } | |

Specific linkages between functions are highlighted where appropriate.

The findings for each function were then pulled together to produce a set of **goals**, listing the priorities for delivering multifunctional green infrastructure and protecting the most sensitive sites. These guide the development of the **spatial framework** for green infrastructure, including a Green Infrastructure Concept Plan, showing the areas where fully functioning green infrastructure will bring the greatest public benefit, and a more detailed Green Network Plan showing a number of priority projects that will create and sustain green infrastructure of sub-regional importance.

The goals, Concept Plan and Green Network Plan are all presented in Section 6.

It should be noted that these components – i.e. the implementation programmes, the Green Infrastructure Concept Plan and the Green Network Plan - are inseparable and must be read in combination.

## A Green Infrastructure Vision for South Hampshire

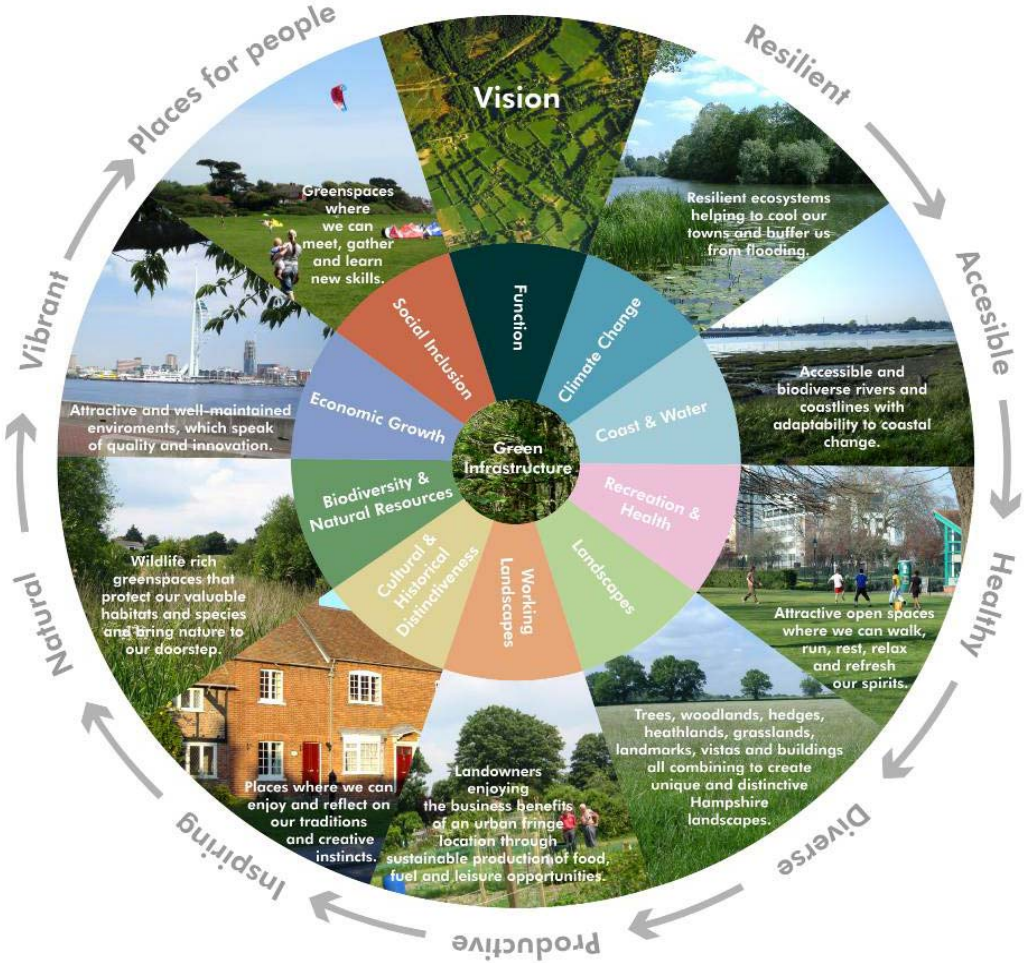
PUSH's vision for South Hampshire is:

*A sustainable, prosperous and attractive South Hampshire, proud and protective of its many natural resources – coast and countryside, landscapes and heritage – and its green and biodiverse built environments and public spaces that together bring a high quality of life and distinctive sense of place.*

However, we recognise green infrastructure as a multi functional concept which is realised in different forms at different spatial scales, and so have expressed a vision for each of the 9 green infrastructure functions for South Hampshire.

The summary statement encircling the graphic is a "one-line" aspiration for multifunctional green infrastructure:

*Resilient, accessible, health-giving, diverse, productive, inspiring, natural, vibrant places for people*



# Section 5

# Recommendations to PUSH: Suggested Implementation Programmes

# Biodiversity

## The Challenge

The area has a rich and diverse ecosystem and sits within a wider landscape of even higher biodiversity value: the unique cultural landscape of the New Forest heaths, woodlands and wetlands, and the natural coastline of international value for birds. These habitats support a great array of wild plants and animals, and although it is a relatively urbanised area, 16.08% of its landmass has habitats of biodiversity priority (compared to an English average of 14%).

| Type of Site Designation | Area (ha) | % of landmass |
|---|---|---|
| Coastal / Inter-tidal SSSI / SAC / SPA (International Importance) | 6,348* | N/A |
| Terrestrial & Freshwater SSSI / SAC (National / International Importance) | 2,396 | 4.15% |
| Terrestrial Sites of Importance for Nature Conservation (Local Importance) | 6.499 | 11.26% |

| Type of Site Designation | Area (ha) | % of landmass |
|---|---|---|
| Biodiversity Priority Habitats (within and outside designated sites) | 4,529 coastal | N/A |
| | 9,277 terrestrial | 16.08% |

* includes coastal designations adjacent to urban South Hampshire

These ecosystems are vulnerable to pressures from urbanisation and prosperity (particularly arising from recreational pressures), coupled with unpredictable yet inevitable effects of climate change on habitat viability and continuity.

Growth could lead to further habitat deterioration, fragmentation and disturbance, not just to Natura sites and protected landscapes but to all habitats within the PUSH area and within the wider zone of influence. Our challenge is to connect the existing patches of habitat into landscape scale corridors which will both strengthen designated sites and also give nature the space to move, increasing the resilience of all habitats and species to climate change.

A further challenge is the need to increase people's access to nature without causing further damage or disturbance to sensitive sites. This is a quality of life issue, particularly relevant in the urban and urban-fringe areas where people have poor access to natural greenspace. The potential contribution of people's own gardens to the habitat network should also not be underestimated, as they cover 16% of the South Hampshire area

**Vision for Biodiversity: Wildlife-rich spaces that protect key habitats and species, bringing nature to our doorstep.**

**Objectives**

- **conserve and enhance** existing habitats – on a no-net-loss basis where development cannot safeguard on-site habitats;
- improve **connectivity** by creating new habitat corridors at all scales;

- create a **network** to increase the resilience of unique and valuable South Hampshire ecosystems;
- plan and create coastal **refuge** zones to allow for inevitable displacement of coastal habitats and birds and buffer the Natura network;
- improve **human connections** with nature to deliver the vision of "*being able to walk from your front door into a continuous stretch of wildlife and countryside which goes on for miles*" (`A Living Landscape for the South East' – produced by the Wildlife Trusts);
- increase **public knowledge, understanding and awareness** of biodiversity in relation to people's recreational choices and to increase wildlife friendly gardening practices.

## Spatial Concept

A Biodiversity Network Concept is shown at Figure 5.1. This presents a proposed programme for restoring and enhancing existing habitats, based on the South East Ecological Network (developed by the Wildlife Trusts), and covering the existing network of Natura sites: enabling them to be buffered against future changes arising from demographic and climatic pressures.

The biodiversity network comprises:

The **South Hampshire Habitat Mosaic**- enhancing and strengthening South Hampshire's traditional mosaic landscape of woodlands, wood pasture, grassland and heathland, rich in biodiversity and human activity. It should join the existing patchwork of habitats across the Forest of Bere; from Havant in the east to Totton in the west, and permeate deep into urban areas and down to the coast. It would facilitate terrestrial and airborne dispersal of birds, seeds and invertebrates, particularly to and from the New Forest.

**Coastal refuges** allow for displacement of estuarine and marsh habitats, invertebrates and especially birds from the inevitable consequences of sea level rise and urbanisation. The refuge zones are low-lying, relatively undisturbed open land. These areas will be subject to continuous change over the forthcoming decades so a flexible and holistic "coast-long" approach to shoreline management would be needed.

**River Corridors** encompass not only rivers, but also floodplain and valley side habitats. Positive management of river systems will enhance biodiversity connectivity and flood management.

**Urban Wildlife Corridors** (natural corridors in and around urban areas) are essential not only for biodiversity, but also because of the positive impacts they have in terms of public health, neighbourhood liveability and stimulation of environmental stewardship.

**Living Cities** comprise street and garden trees, parkland, campuses and wooded stream valleys which together create an impression of woodland canopy evident in some of our cities and towns, adding biodiversity, land value and townscape quality. Further expansion of such urban woodlands, grasslands and wetlands would provide additional biodiversity, landscape and climatic benefits, with the representation of the Living City on the map as trees recognising the importance of increasing the tree cover to help adapt to the impacts of climate change.

**Chalk grassland** enhancement would expand the oases of downland. The building blocks of the proposed network are mostly in place: the goals would be to enhance and to expand the network through habitat restoration to infill gaps.

With the exception of the Coastal Refuges and parts of the Natural Blueway system, the proposed biodiversity network is compatible with public access and productive use of land and water. There are however sensitive areas where access must be restricted – these decisions can be made at local level (see inset: Hampshire Wildlife Trust Case Study)

## Strategic Response

The **exact implementation of the proposed biodiversity network** should be defined more precisely by Local Authorities, where necessary through further research, peer review, comparison with the South East Ecological Network and detailed study of required buffer zones for Natura sites. It should also be interpreted in light of any further work undertaken on Appropriate Assessment / Habitat Regulations Assessment.

Once defined, the biodiversity network should be embedded into:

- Local Development Frameworks;
- Targeting of land-management funding;
- Business plans of public sector, conservation sector organisations and other major landowners;
- Delivery plans of agencies concerned with housing growth and associated built infrastructure.

Local Authorities should define this biodiversity network and identify which areas require **conservation, restoration, enhancement or a combination of these strategies**.

**Local Development Frameworks** (LDFs) should protect biodiversity and ensure developments are biodiverse, by:

- Safeguarding the network on and off-site;
- Contributing to establishing a connected series of habitats, on and off-site;
- Improving human access to the network (where appropriate);
- Demonstrating how indirect pressures on the network resulting from development (e.g. increased disturbance) will be mitigated through improvements to habitat quality, quantity and/or connectivity; delivered on or off-site;
- Incorporates biodiversity measures in design, layout and landscaping; in line with the Hampshire Biodiversity Action Plan and Landscape Character Assessment.

PUSH should work with government departments and other funding bodies to align **land management support** towards biodiversity outcomes e.g. conversion of plantation woodlands to heathland, stimulating bird-friendly management in coastal refuges and re-connecting corridor (see inset: Edinburgh & Lothians Forest Habitat Network Case Study).

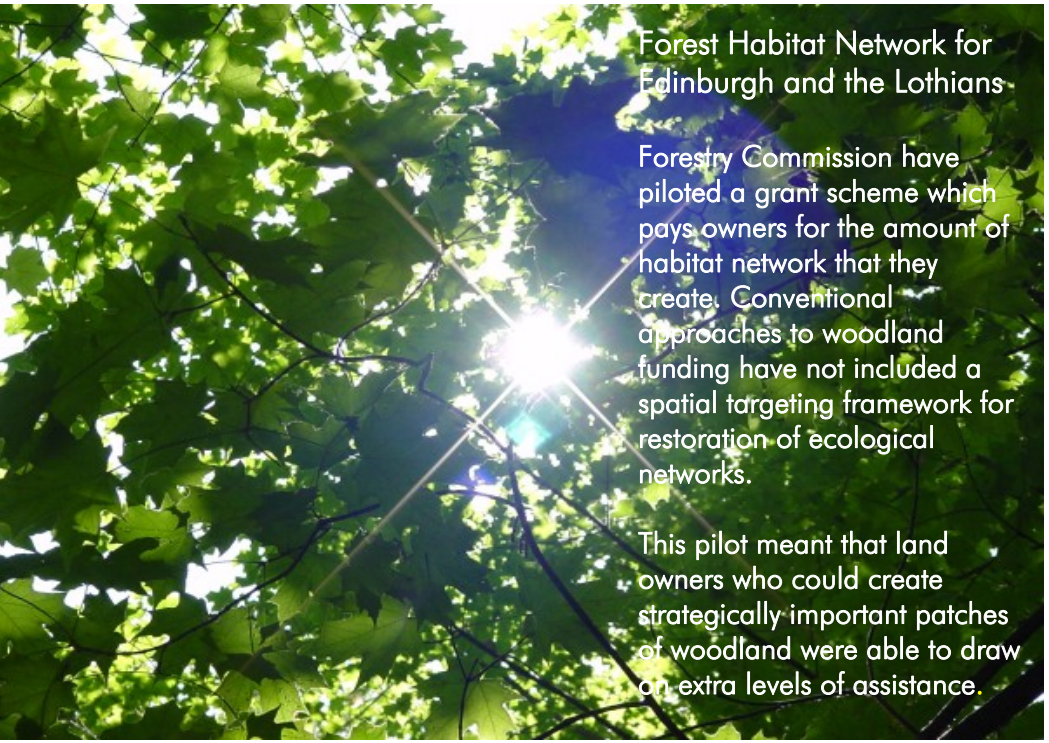
**Collaborations** with landowners should be developed to assist them collectively to access funds and best practice guidance about land management to contribute to the biodiversity network. Equally PUSH Authorities and partners should engage with gardeners and allotment holders to encourage wildlife friendly practices.

Despite not being designated as such, this area fulfils several green infrastructure functions: it is a strategic gap, contains complex of nature conservation designations including an SAC and SPA, serves an important floodplain and water storage function, and provides managed access to green-space close to where people live on the urban fringes of Southampton, buffering the New Forest. It lies within 3 local authority areas and is owned and managed by a range of different landowners; the most widespread use is cattle grazing, and Hampshire Wildlife Trust runs an education centre from the Testwood Lakes Centre. The experiences gained in managing this area could be applied to other parts of the sub-region.

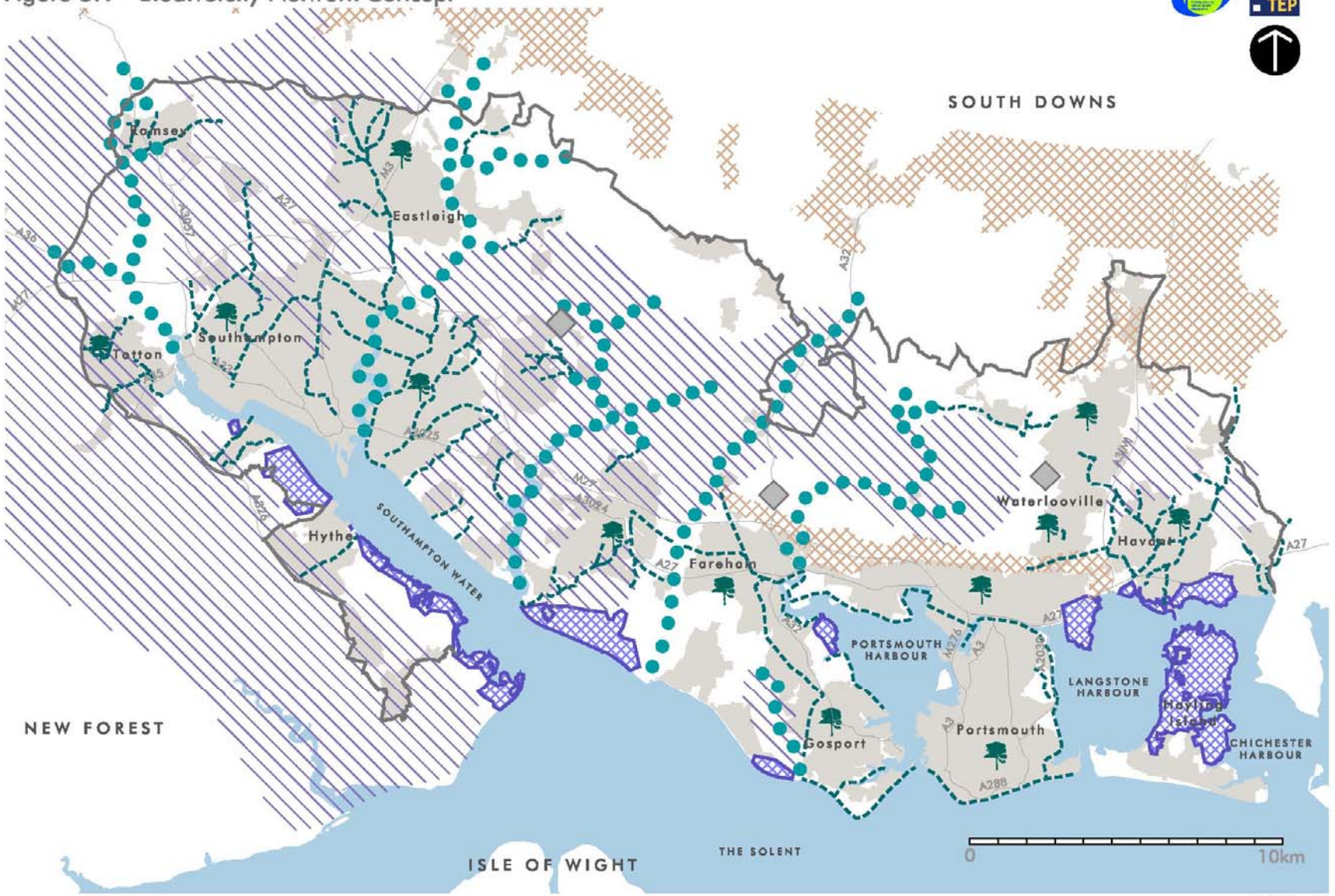
**Publicly funded infrastructure** development, (particularly transport and coastal/flood defences which can cause significant environmental change) should build in biodiversity through design and mitigate downstream impacts through investment in the biodiversity network.

In line with the statutory duty to "have regard to biodiversity", public bodies should **audit** their own landholdings and draw up **biodiversity action plans.** Integrated "recreation management" in the coastal zone could be enhanced by adopting a Waterfront Regional Park. This might help meet Natura obligations regarding the need to safeguard the overall extent and continuity of habitat in a changing environment.

Implementation of the green infrastructure strategy in total is needed to ensure that **recreational pressures** arising from growth and prosperity are absorbed within the PUSH area and not dispersed into the New Forest or the sensitive coast. In particular the strategies for "Parks for the Future" and "Coast and Water" envisage creation of multifunctional regional parks to create sporting, leisure and visitor-economy opportunities away from sensitive ecosystems, with both the "Parks for the Future" and "Green Access Network" both binging nature into our cities.



## Figure 5.1 - Biodiversity Network Concept






D1358.001A

### Key

- PUSH boundary
- Development areas
- Downland
- South Hampshire habitat mosaic
- Coastal refuge
- River corridors
- Living cities
- Urban wildlife corridors

# Climate Change Adaptation

## The Challenge

People spend much of their time in urban areas; artificial eco-systems with little natural resilience to climatic stress, evidenced by urban heat island effects, poorer air quality and vulnerability to flooding. Flooding is often due to inadequate drainage infrastructure and is not restricted to flood plains. These problems have proportionately greater impact on vulnerable groups such as the young and elderly, those with limited mobility, poor health or low income.

Urban green infrastructure can reduce problems of environmental pollution, rapid surface water run-off and can ameliorate heat island effects. Leafy and porous surfaces attenuate severe rainfall, taking pressure off surface water drainage infrastructure. Bio-swales, restored urban streams and greenways can improve flood storage capacity and water quality (important given the ecological value of the Solent).

Increasing urban "liveability" encourages residents to stay in cities, rather than drift to suburban and rural addresses; urban residents tend to have much lower carbon footprints – hence green infrastructure investment makes a direct contribution to carbon reduction targets. Green infrastructure can also reduce carbon footprints: woodland planting and good farmland management lock up carbon in timber and healthy soils, while woodchip and locally-grown food reduce transport and energy-related emissions. Greenspaces can also host energy-generation (wind-power, ground-source heat).

Increased temperatures and extremes of rainfall can also lead to habitat degradation, challenging vulnerable species and inhibiting species migration.

Despite these effects, some people remain unconvinced that climate change is an issue, and raising awareness of the issues and steps that can be taken to minimise impacts is essential.

**Vision for Climatic Adaptation: Highly live-able urban environments with shade and good air quality; greenspaces which help manage fluvial and coastal flooding; biodiversity networks which allow species and habitats to disperse and adapt to physical changes**

**Objectives**

- Mitigate **urban heat islands** by increasing shade and water;
- Increase **flood storage capacity** through creative use of greenspaces and public realm; and river restoration and riparian management in flood-prone catchments;
- Increase soil depth and organic matter, **resisting the increased sealing of urban surfaces** arising from development;
- Ensure new developments incorporate features such as green roofs and walls, sustainable drainage systems and porous surfaces, allowing adequate space for future tree growth and distances from watercourses;
- Establish **habitat corridors** and **refuges;**
- Stimulate markets for **locally-grown** food and energy;
- **Educate and raise awareness** of the potential effects of climate change and how they can be addressed.

## Spatial Context

Issues related to **landscape, coastal and biodiversity adaptation** to climate change are described more fully in other parts of this Section, so the spatial priorities are not repeated here – reinforcing the fact that the strategy needs to be implemented as a whole to fully respond to the multiple challenges of global warming.

Priority areas where **communities are particularly vulnerable** to climatic stresses are shown at Figure 5.2, considering density of population, levels of greenspace and vulnerability relating to age, health and mobility.

**The Living Cities** concept applies to all our towns and cities, both existing and planned. Apart from sites constrained by recreation, heritage or biodiversity value, most areas could benefit from increased canopy cover. Spatial priorities are along primary transport networks, in existing green spaces, around community buildings, within vulnerable communities and along urban greenways and blueways.

**Catchments** are an essential basis of planning for permeable and vegetated surfaces. Figure 5.3 indicates where green infrastructure can contribute most to surface water management within catchments, considering in combination:

- existing urban densities and land covers;
- flood zones;
- rivers;
- water quality.

With further research, this can help planners draw up a menu of options for porous vegetated surfaces in areas where it is critical to avoid rapid run-off and improve the storage capacity of existing soils and drainage infrastructure. Urban Catchment Options could include:

- increasing permeability in areas being redeveloped (recognising this may be less appropriate where the primary risk is coastal flooding);
- increasing vegetation cover during redevelopment (recognising that leaf-blocking of drains can be a flood hazard);
- improving flood storage and attenuation in areas where urban drainage is under stress;
- perhaps using the street itself as green flood storage through landscaped swales (see inset: Seattle case study).

During master planning of new development, layouts should encourage the **flow of clean and cool air**, from the sea and from expansive areas of urban green space, water bodies and rivers which have cooler surface temperatures.

**Seattle 110th St Cascade**: A wide residential street in Seattle contained the surface water sewer for a 70 acre urban catchment. The main pipe was opened up and the surface stream now runs in swales of visual and biological diversity. This coincided with a slight re-prioritisation of cars and pedestrian use of the street to make it a more attractive multi-user thoroughfare.
www.seattle.gov/util/About_SPU/index.asp

**Green streets and home zones** apply to areas where there is potential for multiple benefits to arise from redesigning the public realm. This might involve a combination of traffic calming, increasing permeability of surfaces, breaking out buried streams and surface water drains to increase attenuation, pedestrian prioritising and planting of street trees. Given the cost and technical difficulty of redesigning the public realm in this way, the value of green streets should be realised where there is a strategic benefit, e.g. where all the following benefits can be delivered:

- increased flood storage capacity through swales;
- increased access to natural green space (see Figure 5.5);
- provision of safe routes to school or local centres;
- increased doorstep greenspace for people of limited mobility (see Figure 5.2).

There is also the potential for **biomass** plantation – most likely on less productive land and where such measures are sensitive to both the landscape and biodiversity.

## Strategic Response

**Urban tree and woodland strategies** should be developed, preferably on a cross boundary basis. These should set targets for sustaining and increasing the existing urban canopy. The strategy should be based on community aspirations and should harness existing community pride e.g. tree wardens, residents' associations. Given the huge social and economic value of trees in creating a shady and distinctive setting, an average canopy cover of 30-40% (in line with European woodland averages) across our urban areas and a minimum target level of 10% for neighbourhoods might be considered.

**Local Development Frameworks** (LDFs) should

- Identify **urban greenways and blueways**, and include policy for their protection, defragmentation and river restoration, especially where this would improve flood storage capacity (see North London River Restoration Strategy Case Study);
- Require all major developments (thresholds to be determined locally) to demonstrate how healthy urban surfaces will be provided, in accordance with emerging **codes for sustainable construction**;
- Require development to result in a **net gain in urban surface vegetation cover, porosity and flood storage**. This could signpost developers to a menu of options such as green roofs, rain gardens, sustainable urban drainage systems, bio-swales;
- Consider identifying urban **soil conservation areas** in which "sealed" development should be resisted unless it can demonstrate a locational need and provide adequate compensation within the relevant catchment;
- Promote appropriate use of **Home Zone** approaches to urban design;
- Promote implementation of **urban tree strategies** through planning obligation and through greening of public infrastructure projects.

Local authorities and the Environment Agency might investigate **vegetation and porosity targets** for urban catchments and require developers to demonstrate how they can assist in meeting such targets.
The spatial priorities outlined above apply to all urban areas, existing and planned. However it will be easier to design airy, leafy and porous urban surfaces into master plans, developments and regeneration. Most sites over 1 hectare (where flood risk assessment is required by PPS25) will require a master plan approach where healthy urban surfaces can be designed. In older urban areas not subject to rapid change it will be a longer process, which may require opportunistic delivery strategies.

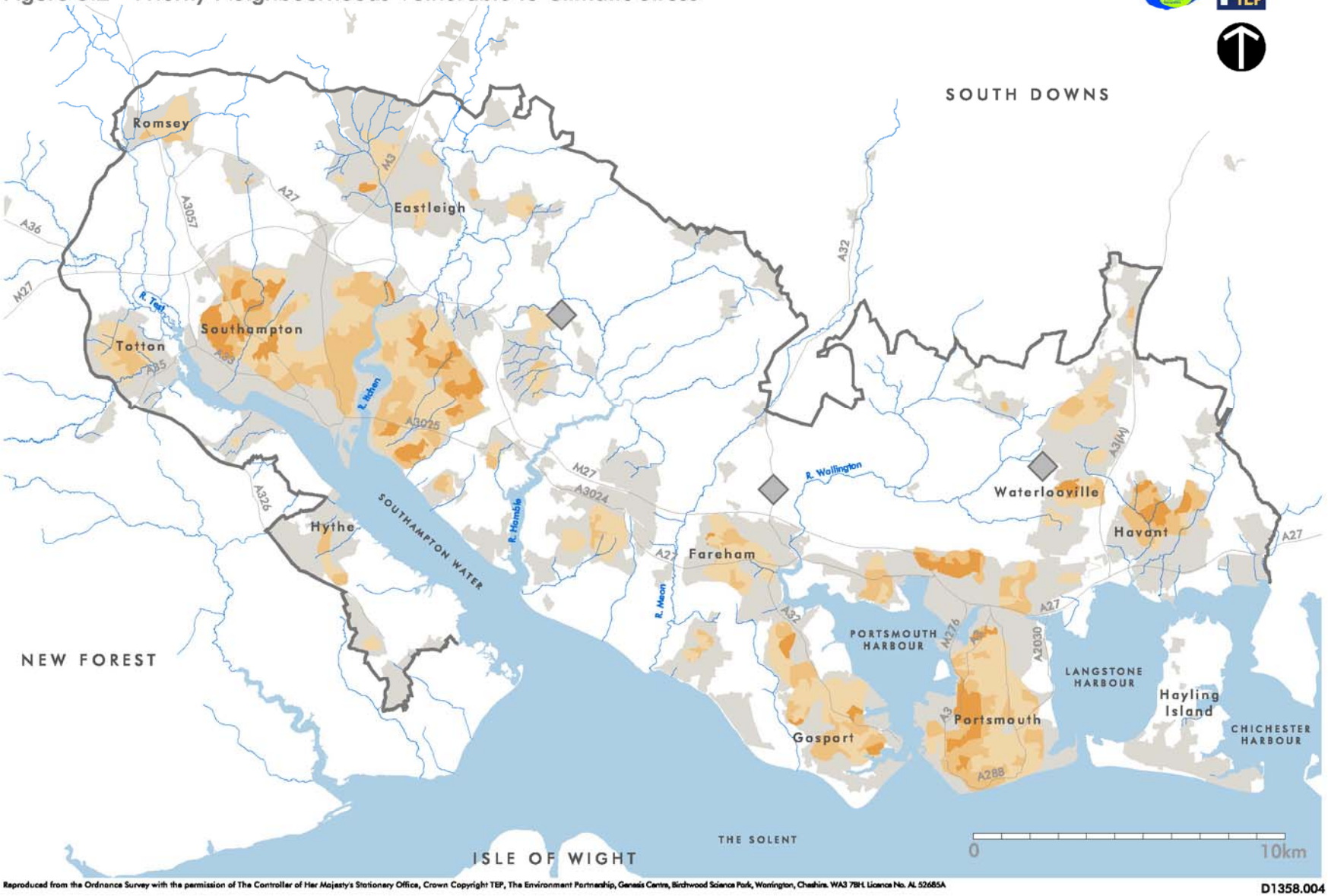
Major open spaces should be audited to assess which could provide additional **flood storage, ground water recharge or energy generation** opportunities.

**North London River Restoration Strategy:**
The Environment Agency has developed a strategy for restoring rivers in North London. Highlighting particular reaches of river that could benefit from restoration, the guide shows the potential for river restoration and the social, economic and environmental benefits it can bring. It recognises the role of river restoration in urban regeneration, setting out guidelines for the process and opportunities for funding to aid practitioners.
www.london.gov.uk/mayor/environment/biodiversity/docs/restoring-rivers-nlondon-env-agency.pdf

**Public procurement contracts**, especially those where the PUSH partners are clients, should prioritise **locally-grown food, energy and construction materials**. This will reduce carbon footprints and stimulate the local economy and a sense of local stewardship.

The findings and recommendations of new and emerging studies, such as future sea level rise models, need to be considered alongside green infrastructure recommendations and addressed by PUSH in future work.

## Figure 5.2 - Priority Neighbourhoods Vulnerable to Climatic Stress



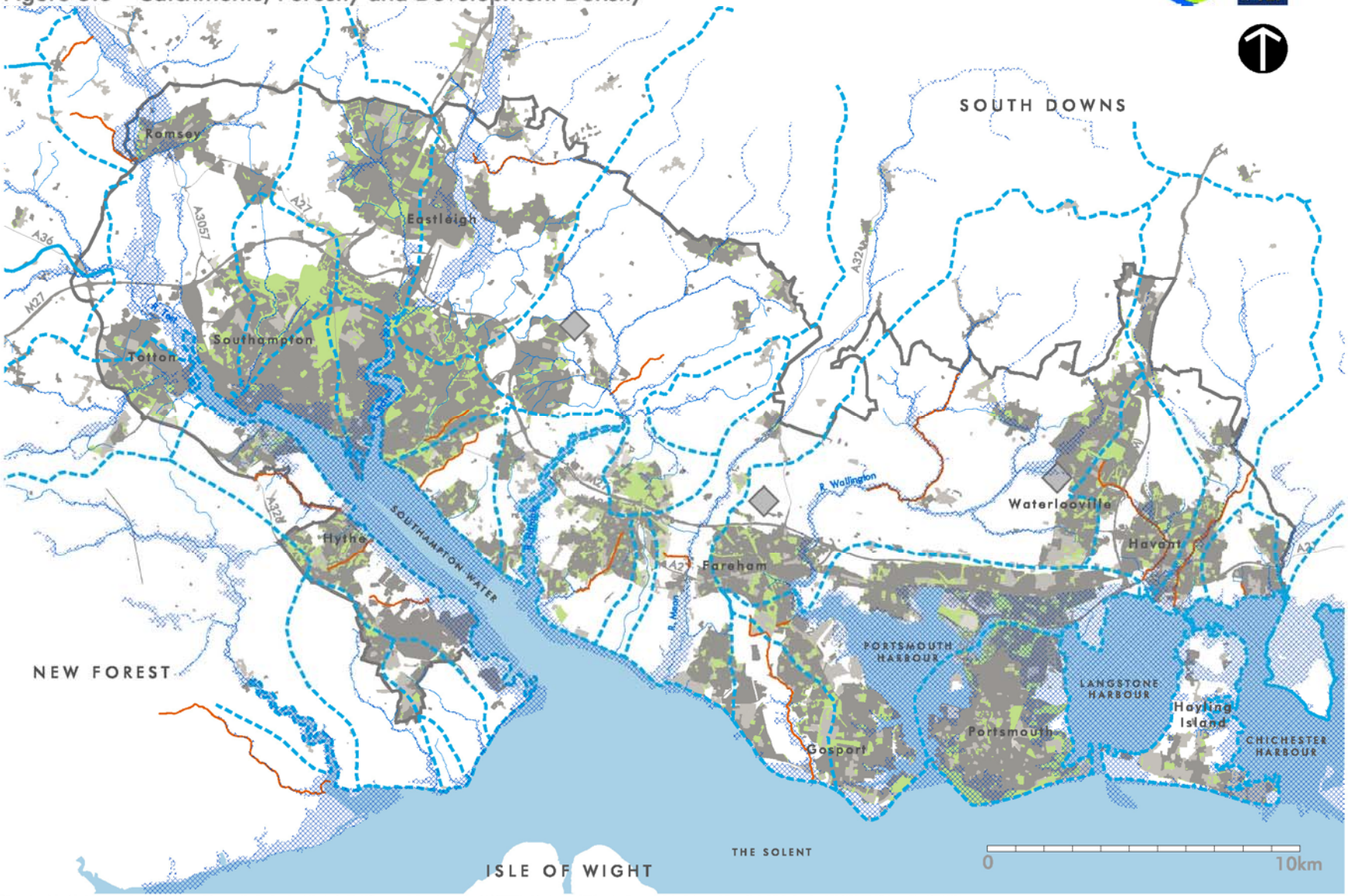



D1358.004

### Key

- PUSH boundary
- Development areas
- Areas in need of cooling/shading:
  - High need
  - Moderate need
  - Some need

## Figure 5.3 - Catchments, Porosity and Development Density






D1358.005

### Key

- PUSH boundary
- Development areas
- River catchments
- Low quality rivers
- Highly sealed development
- Moderately sealed development
- Urban greenspace
- Flood zones

# Coast and Water

## The Challenge

The identity of urban South Hampshire is intimately linked to its maritime geography and heritage. The coast is already, in parts, recognised as a world-class waterfront, and is one of the main sea gateways to and from Europe. Naval, marine, leisure and tourism uses are major components of the economy.

The coast and main rivers have huge biodiversity and heritage values and are the "local park" for many residents – demanding complex management arrangements. They will be affected by sea-level rise, which, for the foreseeable future, will require continuous re-consideration of appropriate management strategies across established coastal fora such as the Solent European Marine Sites Managements Scheme (SEMS) Management Group, Solent Forum, Shoreline Management Plans, etc.

Several agencies have a statutory remit to manage the coastal environment, and the uses of it. Many voluntary sector groups and landowners also have specific aspirations for waterfront management. There are also the legal obligations associated with safeguarding Solent European Marine Sites (SEMS) and their international significance for wildlife.

Forthcoming coastal access legislation will be broadly welcomed, but concerns about environmental, operational and military sensitivity need to be resolved through local agreements. A related issue is the need to future-proof existing and new access routes against erosion caused by climate change.

Despite the many competing demands on the waterfront environment, the cross-sectoral representation on the Solent Forum indicates strong support for integrated coastal zone management. The future green infrastructure strategy should promote integrated investment in creation and management of coastal assets, particularly where greatest public benefit might arise, reflecting the facilitation role of the Solent Forum and complimenting / enabling the work of agencies and owners who manage coastal green infrastructure assets, in line with legal obligations under, for example, SEMS.

**Vision for Coast and Water: Accessible, biodiverse and distinctive coastal and river waterfronts. Vibrant places for meeting and leisure**

**Objectives**

- **Protect** the unique quality of **coastal landscape and heritage;**
- **Promote integrated coastal zone management** for the entire Solent and Southampton waterfront;
- Increase appropriate **public access to (and alongside) the coast and rivers,** taking account of sensitive locations and tranquil environments**;**
- Maintain and where possible increase, the **overall quantity and connectivity of coastal habitats**, in the face of sea-level change;
- Increase **use of waterspace,** taking account of sensitive locations and tranquil environments.

All proposals should be economically, socially and environmentally sustainable in the long term, to account for potential climate change impacts.

## Spatial Context

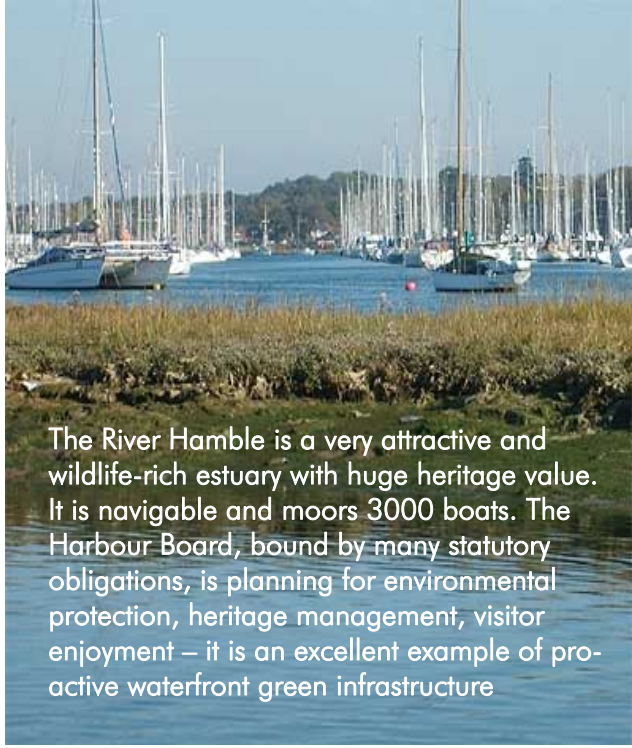
The concept plan for Coast and Water (Figure 5.4) shows the **accessible waterfront**. This is waterfront where there is access provision directly alongside the water, or where the land adjacent the water is accessible (even if continuous waterside access is not available). Some sections of coast and river are not publicly accessible for military or operational reasons. A long-term aspiration is that as much coastline as possible is accessible.

The concept plan also illustrates the **river network**, showing **catchment boundaries**, and which reaches are presently of **poor water quality**. Of these, the brooks in eastern Southampton and in Havant, along with the River Alver at Gosport are important green/blueways in the green infrastructure strategy.

The priority areas of coast and river which form the waterfront green infrastructure network can be regarded as distinctive **"Waterfront Character Zones"** and are listed below:

1 – Hythe, the New Forest Waterside;
2 - Lower Test Valley;
3 - Lower Itchen Valley;
4 - Itchen Bridge and Woolston to Hamble-le-Rice;
5 - Lower River Hamble ;
6 - Warsash to Titchfield Haven;
7 - Hill Head to Gosport;
8 – Portchester and Horsea Island;
9 - Portsmouth and Gosport International Waterfront;
10 - Southsea Common to Eastney;
11 - Hayling Island Coast;
12 – Hayling, Langstone and Chichester Harbours.

Each of these character zones is a distinctive and critical piece of waterfront green infrastructure. Population pressures, economic influences and sea-level changes will affect each in different ways. The character zones have distinctive destination public spaces, such as promenades, parks, nature reserves, viewpoints and heritage areas – shown in Figures 5.6 to 5.9.



The River Hamble is a very attractive and wildlife-rich estuary with huge heritage value. It is navigable and moors 3000 boats. The Harbour Board, bound by many statutory obligations, is planning for environmental protection, heritage management, visitor enjoyment – it is an excellent example of pro-active waterfront green infrastructure

## Strategic Response

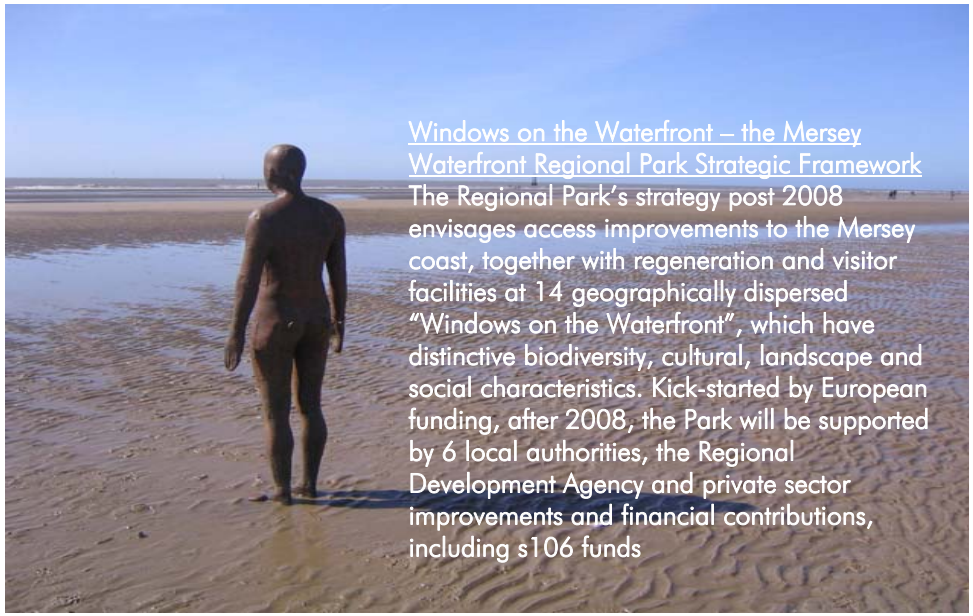
The waterfront is South Hampshire's most important green infrastructure asset. PUSH considers that it should be recognised, in its entirety, as a "world-class waterfront". To achieve this, PUSH could promote the following measures (subject to restrictions imposed by environmentally sensitive locations):

- Public access to the waterfront from urban hinterlands, particularly from areas of greenspace access deficiency;
- Public access along the waterfront;
- Improved visitor and tourist facilities;
- Coastal habitats managed and created to achieve a net gain, even in the face of climate change and sea-level rise;
- Locally distinctive approaches to waterfront development vernacular, coastal defence, signage, visitor facilities and heritage interpretation;
- "Benchmarks" to achieve high design quality at all coastal facilities.

Branding the Solent's green and blue infrastructure assets under the umbrella of a "**Waterfront Regional Park**" would help create the necessary partnership to draw on strategic resources for project and programme development (see inset: Mersey Waterfront Regional Park case study).

The Standing Conference on Problems Associated with Coastline Works (SCOPAC) demonstrates that there is already a multi-agency partnership approach to coastal management. This "Regional Park" approach to integrated access and management could encompass the lower reaches of the Rivers Test, Itchen and Hamble which are ecologically and culturally contiguous with the coast.

The **spatial framework** (Fig 6.2) proposes several different types of green infrastructure assets along the river and coastal waterfront. These assets include coastal refuges, green infrastructure gateways, blueway parks, biodiversity and heritage hubs. These assets should be identified in Local Development Frameworks (LDFs).



Windows on the Waterfront – the Mersey Waterfront Regional Park Strategic Framework

The Regional Park's strategy post 2008 envisages access improvements to the Mersey coast, together with regeneration and visitor facilities at 14 geographically dispersed "Windows on the Waterfront", which have distinctive biodiversity, cultural, landscape and social characteristics. Kick-started by European funding, after 2008, the Park will be supported by 6 local authorities, the Regional Development Agency and private sector improvements and financial contributions, including s106 funds

**Local Development Frameworks** (LDFs) should (subject to sensitivities of a biodiversity, military or operational nature):

- Promote access along coast and waterways;
- Promote links from urban areas to the waterfront;
- Ensure new development increases connectivity of coastal and riparian habitat and access networks;
- Resist development which fragments access habitat networks;
- Support carefully-sited tourism development which benefits from coastal green infrastructure;
- Promote navigation and recreational use of waterspace;
- Seek water quality improvements in low-quality rivers through controls on "in-catchment" development (and by encouraging redevelopment of contaminating sites).

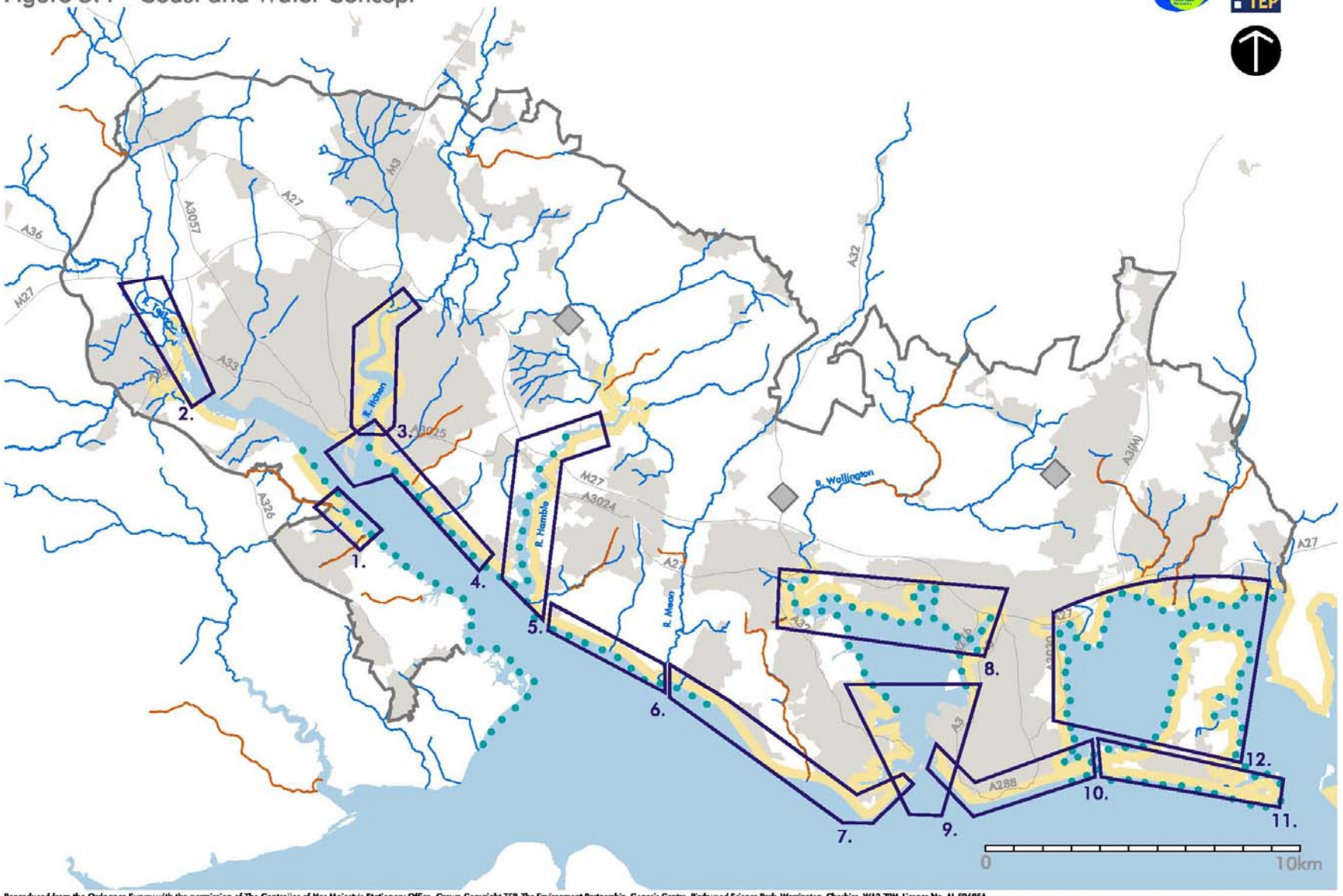
**Shoreline Management Planning** is a process championed by the Environment Agency, setting the framework for coastal defence policy with the aim of balancing the management of coastal flooding and erosion risks with natural processes and the consequences of climate change. Coastal green infrastructure assets should be identified and considered during management planning, with positive policies for creation of new assets and increased access, as a co-product of any changes in land use and coastal defence. This may include the use of "managed retreat" in certain locations.

As **coastal access legislation** emerges, PUSH should work with landowners to maximise provision of visitor facilities and interpretation of coastal heritage. As the major naval, industrial and dock uses change their operational footprints, opportunity will be taken to increase public access to, and along, the coast.

**Purchase of coastal land** by environmental bodies should be encouraged (see Operation Neptune Case Study).

The **rivers of lower quality**, (particularly in Southampton, Gosport and Havant) which are of lower water quality should be targeted for improvement, with habitat management and re-development in their catchments offering opportunity for decontamination.

# Figure 5.4 - Coast and Water Concept






D1358.008A

## Key

- PUSH boundary
- Development areas
- Accessible coast
- Low quality rivers
- Biodiversity coast
- Waterfront character zones

1.

**Waterfront character zones:**

1. Hythe, the New Forest Waterside
2. Lower Test Valley
3. Lower Itchen Valley
4. Itchen Bridge and Woolston to Hamble-le-Rice
5. Lower River Hamble
6. Warsash to Titchfield Haven
7. Hill Head to Gosport
8. Portchester and Horsea Island
9. Portsmouth and Gosport International Waterfront
10. Southsea Common to Eastney
11. Hayling Island Coast
12. Hayling, Langstone and Chichester Harbours

# Green Access and Movement

## The Challenge

Access and movement is a central part of green infrastructure. Walkers, cyclists and equestrians need a network of routes that form "green loops" which allow movement within urban areas and to the coast and countryside – for leisure, commuting and access to services. Fully functioning green loops allow people of all abilities to choose several ways to reach leisure and daily routine destinations. The concept is shown in the graphic on the following page.

Movement is important in urban liveability, attracting people to live and stay in the area during leisure time. This has benefits in terms of healthy lifestyles, low-carbon living and reduced pressure on sensitive ecosystems of the New Forest and the natural coastline. It also stimulates micro-enterprises at destinations along the network and increases appreciation of the distinctive character of the area.

A shaded public realm provides an attractive and rich environment. Walkable links to green spaces and community facilities offer escape and refuge from urban stresses and lead to an increased sense of belonging.

Although, for example, Gosport already has one of the highest cycling rates in the South East, further promotion and enabling of sustainable transport options is an essential role of green infrastructure in South Hampshire, with the benefits of reducing congestion, improving air quality and encouraging active lifestyles.

**Vision for Green Access and Movement: All people to enjoy easy access to a neighbourhood greenspace; and from there, to be able to easily reach coast and countryside.**

Objectives:

- Create an **integrated network of green loops** to encourage walking and cycling for daily tasks and recreational activity;
- Link **visitor destinations** with urban areas and with each other;
- Increase accessibility to **coastal and river waterfronts, and to viewpoints**, taking account of sensitive environments;
- Increase the **permeability of the urban/rural fringe,** overcoming obstacles and barriers to movement;
- **Engage with communities** to address non-physical barriers to using the network;
- Improve **awareness of greenspaces** within urban areas;
- Create **urban greenways** and **blueways**

## Spatial Context

A Green Access and Movement Framework is being developed by Hampshire County Council and PUSH and provides the foundation for Figure 5.5. It provides seamless transitions between urban, coastal and countryside landscapes. Whilst all rights of way, parks and open-access destinations are covered by the Framework, a network of multi-user routes of strategic importance is illustrated.

This Multi-User Network allows a variety of movements, as shown in the Green Loop concept opposite:

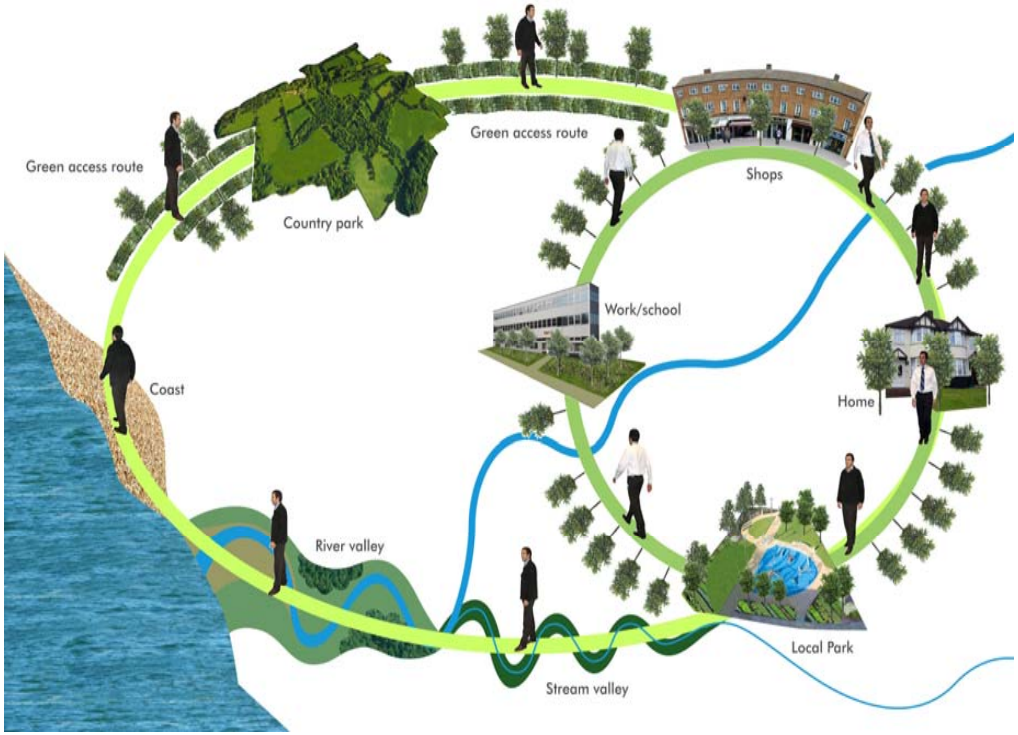
- Accessing coastal, countryside and urban destinations
- Close-to-home
- Commuting
- Long-distance
- Inter-settlement
- Dedicated mini-trails in parks and urban areas (e.g. health walks, trimtrails, heritage walks, urban Sustrans network)

The growth imperative and the need to improve opportunities for healthy lifestyles means investment is needed; for example to provide new surfaces for multiple-use, adjust to sea-level rises, overcome barriers and publicity to improve awareness and use.

In some cases, access from urban areas to the multi-user network is constrained by **relatively inaccessible** urban/rural fringe areas; these are priorities in areas of access deficiency and/or high population pressure – areas of Southampton, Portsmouth and Fareham in particular have few rights of way in the urban/rural transition zone.

Overcoming barriers and improving urban permeability can be achieved through various approaches:

- Creating new access: including purchase of rights from private owners
- Green Streets: re-imagining highways to improve pedestrian / cyclist priority relative to cars
- Requiring new development in urban / rural fringe areas to contribute to access improvements on or off-site as appropriate
- Waymarking and confidence-building (see Neighbourhood Signposting Case study)
- Improving use of parks and greenways (e.g. safety, surfacing and lighting measures)




**Natural tourism assets – or 'Green Destinations' -** add value to the network because of their inherent landscape or heritage value. Most are of sufficient critical mass to support enterprises such as cycle hire, cafes, treetop ropewalks, angling and golf. In turn, the access network adds value to these destinations. Stimulation of enterprise at visitor destinations will encourage greater uptake of the network (good for health and social cohesion) and will also relieve pressure on sensitive landscapes such as the New Forest and the natural coastline.

**Water-borne access** is appropriate in parts of the River Hamble and Itchen, where boat activity is part of the distinctive heritage character.

**Areas of deficiency in access to greenspace or coast** (based on the ANGST 300m criterion[16]) are shown.

[16] PPG17 Companion Guide suggests all people should be able to access a natural greenspace >2ha in size within 300m., according to ANGSt guidelines. For the purpose of this strategy, the accessible coast is included.

## Strategic Response

The Access and Movement Framework is most closely linked with the 'Parks for the Future' and the 'Working Landscape' themes of the strategy, but its implementation would also help deliver the biodiversity network, climatic adaptation and will improve awareness of landmarks, viewpoints and heritage.

The Green Access and Movement Framework should be integrated into the following land-use and transport plans:

- Local Development Frameworks;
- Local Transport Plans;
- Rights of Way Improvement Plans.

**Local Development Frameworks (LDFs)** should;

- Safeguard rights of way and the corridors and easements needed to implement the Access and Movement Network;
- Identify Areas of Search for new access, particularly in areas of deficiency and/or demographic need;
- Require all new development to meet contemporary high design standards in respect of internal walkability and movement between development components, internal open spaces and the wider environment;
- Require new development which directly adjoins or affects the Network to implement appropriate routes at an early stage;
- Require all new development to contribute to the development and management of the Network in proportion to the scale of development and the benefit its occupiers will receive from the Network;
- Require all new development to connect to the Network and contribute to removal of existing barriers to such connection. Such barriers may be physical obstructions or may be due to lack of signage;
- Promote waterborne access, subject to considerations of environmental sensitivity;
- Support the visitor economy by permitting environmentally-sensitive development which improves use of the Network;
- Promote green destinations by positive land allocation and the use of financial contributions to the development and management of them as community resources.

**Local Transport Plans** and **Rights of Way Improvement Plans** should demonstrate a partnership approach to implementation and management of the Network.

**Landowners** of the green destinations (who mostly already work in partnership) should be encouraged to draw up a business plan for their facilities as part of PUSH's investment plan for green infrastructure in the Growth Point.

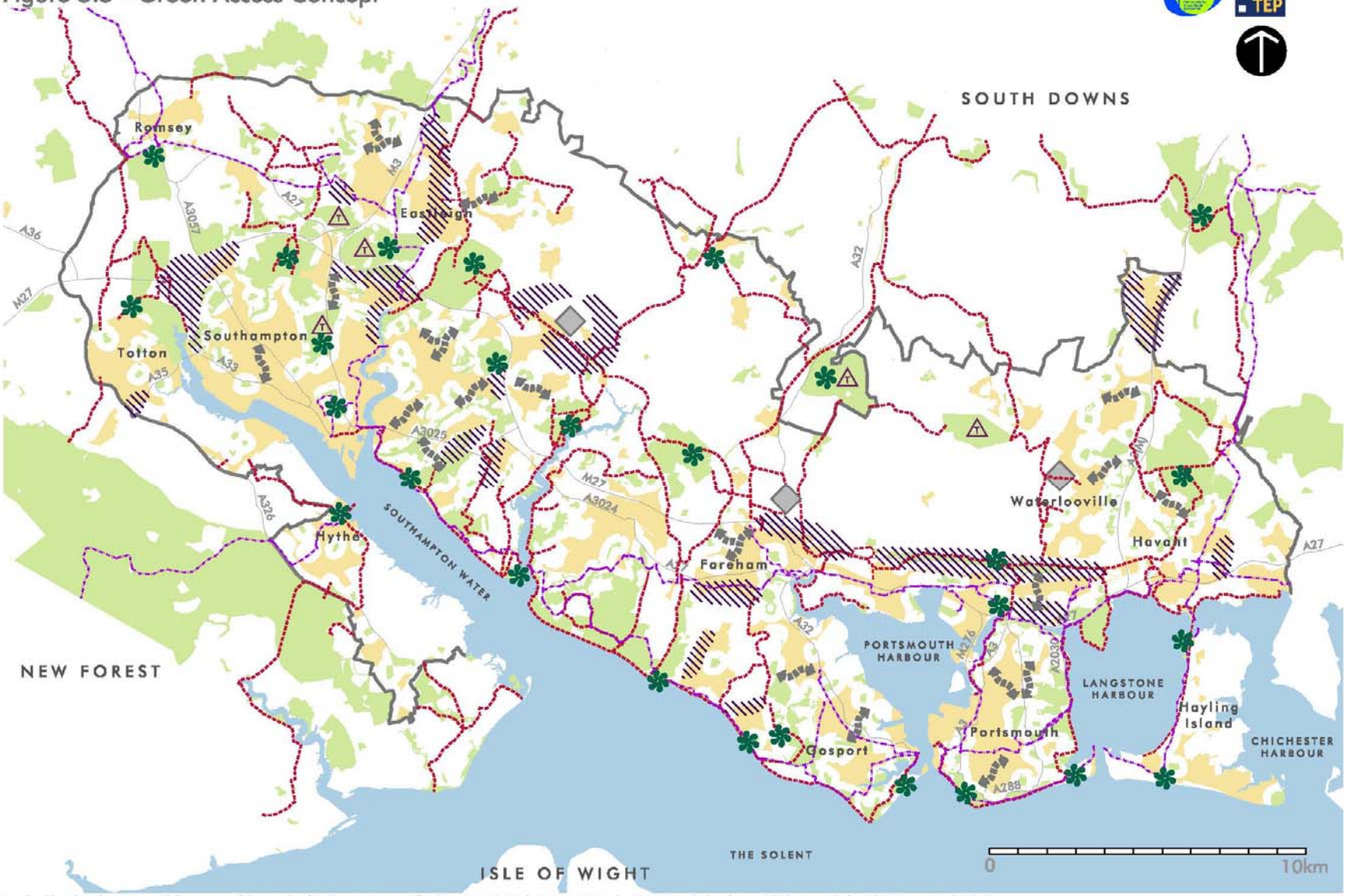
**Investment Plans** of agencies concerned with land management, health protection and sport development should prioritise the Framework, targeting implementation, management and specialised uses of the network.

Local authorities could carry out a **walkability audit** and prepare a **green streets and home zones** strategy which will prioritise key thoroughfares where multiple benefits might arise from a green and multifunctional thoroughfare.

### Neighbourhood Signposting

Kirkholt is a large interwar social housing scheme in Rochdale. It is troubled by issues of poor health, low employment and limited mobility amongst its working population. Despite being near attractive countryside and the town centre, many residents are reluctant to use the footpaths and cycleways in the area. Using neighbourhood renewal fund monies, the Pennine Edge Forest works directly with community groups to encourage greater countryside access, using guided walks and involving community associations. This has led to greater use of the nearby Rochdale Canal, a multi-million pound regeneration initiative completed in 2003.

Figure 5.5 - Green Access Concept






D1358.002

Key

- PUSH boundary
- Development areas
- Accessible greenspace
- Relatively inaccessible rural/urban fringe
- Deficiency in access to natural greenspace
- Multi-user network
- Cycleway associated with highway
- Trails within parks
- Urban connections to be defined
- Green destinations

# Parks for the Future

## The Challenge

South Hampshire has many urban parks, coastal promenades, , commons, country parks, heritage sites and vistas. They are treasured by their users and form part of the area's critical environmental capital, encouraging civic pride.

We must build on this resource and network the parks into a linked series of multifunctional spaces to serve the diverse needs of an urbanised society. Our parks must be excellent places for sport, healthy lifestyles, biodiversity, climatic cooling, economic activity and, above all, community networking.

We need to address existing and future deficiencies in access to green space, especially where there are deprived or vulnerable communities. We need to minimise inappropriate leisure activities, especially in the protected landscapes such as the New Forest, the South Downs and sensitive stretches of coastline. Like other aspects of green infrastructure, our parks need to be considered as a network of spaces, consisting of a diversity of types of park (e.g. promenades, central parks, sports, plazas, country parks, commons) and user catchments (e.g. neighbourhood, town-wide, sub-regional, specialist users).

Distances referred to in this Section relate to Natural England's Accessible Natural Greenspace Standards (ANGSt), which sets guidelines for the provision of open spaces from the neighbourhood to the sub-regional scale.

**Vision for the Strategic Park Network: A network of easy-to-reach, clean, safe and attractive open spaces where people meet, rest and play. Parks which get recommended by commentators and influencers.**

Objectives:

- Create a park **network** to sustain population growth, with a **diversity of park types** to meet the needs of all sectors of society;
- Improve the **quality of facilities** in existing parks to make them attractive and accessible to all, at all times of year;
- Ensure all urban residents live within **2km** (or 20 minute cycle) of a strategic park;
- Ensure the strategic parks are served by the **multi-user green access network** and contribute to the **biodiversity network**;
- Address **deficiencies** in access to greenspace through creation of new or enhanced parks, improving access links from residential areas, targeting communities with greatest needs;
- Protect and raise awareness of the **natural and cultural heritage** in our parks; and **promote local stewardship** of parks
- People should live within 300m of a local park or accessible greenspace

## Spatial Context

A concept of Parks for the Future is shown and listed at Figure 5.6. This includes all existing parks, promenades and spaces of high value, not just to their immediate neighbours, but also to the wider population.

Many of these parks already exist, at least in part, but some require creation or extension or audience-reprofiling, or an increase in functionality. These "opportunities" may require further feasibility testing.

**Country parks, community woodlands and commons** are expansive, naturalistic landscapes which enable significant numbers of people to experience green and blue horizons. They are located within 5km of population centres and take account of the distribution of future population pressures.

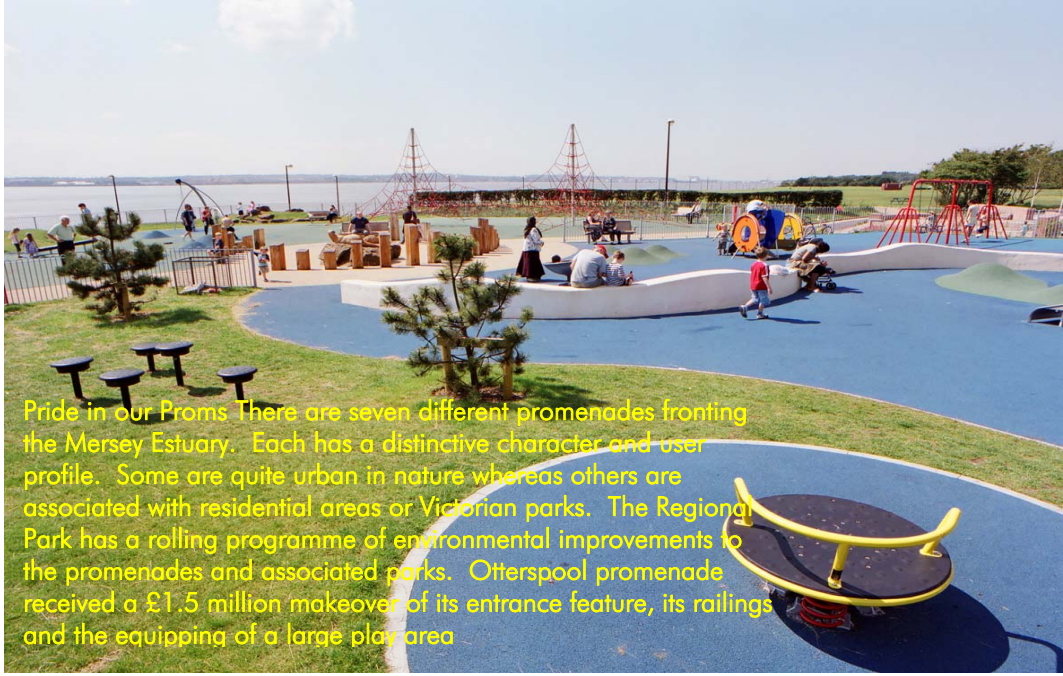
**Coastal parks, promenades and blueway parks** provide open access and multiple uses, focussing particularly on leisure, informal recreation, maritime built heritage and boating. They provide "windows on the waterfront" and are accessible to large numbers of people. They are important in the local visitor economy. Given the biodiversity value of the coast and rivers, they will incorporate some sensitive areas where only visual access (rather than physical access) is necessary. (see Mersey Waterfront Pride in Our Proms Case Study)

**Urban parks and plazas** are highly visible destinations; the flagship green/civic spaces for their city or town. Supporting high impact uses they are important to the surrounding business and retail economy. In some cases, the public realm may require "re-imagining" to increase legibility and attractiveness.

**Urban greenways** are near-continuous natural corridors in which human access is encouraged - they link the strategic parks, residential areas and the coast and countryside. They also form part of the proposed biodiversity network.

**Local green spaces** have value to their neighbourhoods, particularly in areas of greenspace deficiency and limited mobility or health. They cannot be individually named in a PUSH wide strategy, but their existing functions need to be examined and, where necessary, safeguarded and enhanced.

The area has many **heritage sites, landmarks and viewpoints,** some shown at Figure 5.9. Many of the proposed strategic parks include such features. Long views over land and sea; and close-up experience of built heritage bring understanding of the distinctive landscape and cultural character.



Pride in our Proms There are seven different promenades fronting the Mersey Estuary. Each has a distinctive character and user profile. Some are quite urban in nature whereas others are associated with residential areas or Victorian parks. The Regional Park has a rolling programme of environmental improvements to the promenades and associated parks. Otterspool promenade received a £1.5 million makeover of its entrance feature, its railings and the equipping of a large play area

**Priority neighbourhoods** are communities which experience relatively higher levels of poor health, limited mobility, poor air quality, vulnerability to flooding and lower skills than the rest of the sub-region. These are shown at Fig 5.2.

The **Strategic and Major Development Areas** will require high standards of greenspace provision within the developable area, aiming particularly for permeability through the development into the Forest of Bere woodland parks from Fareham, Hedge End and Waterlooville respectively, coupled with provision of sporting facilities.

## Strategic Responses

Local authorities (through PPG17 audits and greenspace strategies) should define the strategic park network in their area; taking account of links to neighbouring authority's greenspaces and the Green Access Network. **Collective strategies** for the two main urban areas are recommended.

Local Development Frameworks (LDFs) should identify **deficiencies** in community health, mobility and access to green space and include policies to reduce deficiency through new or improved open spaces, including neighbourhood spaces and strategic parks.

Branding and managing the coastline as a **Waterfront Regional Park** (see 'Coast & Water') would ensure an integrated approach to open space planning and management, including the management of coastal access, biodiversity and the strategic waterfront parks, civic spaces and commons shown on the concept plan. This would bring "critical mass" benefits for park projects.

In a similar vein, at least two of **inland "Regional Parks"** are proposed. This would bring the existing country parks, commons and woodlands and new assets together under a single brand to meet the leisure, sporting, recreational, heritage and biodiversity needs of the western and eastern urban hubs. Potential locations are shown on the concept plan as the Test to Itchen (Southern Test Valley) Forest Park and to the east in association with Havant Thicket / the Meon-Hamble axis.

In LDFs, authorities should have regard to the importance of parks (including neighbourhood greenspaces). LDFs should:

- Maximise opportunities to enhance outdoor recreation;
- Promote facilities for a variety of outdoor sports;
- Include safe and attractive facilities such as shelter, wardening, toilets, information;
- Improve lighting to increase the usability of parks;
- Overcome physical barriers to accessing strategic parks;
- ensure the **creation of new strategic parks** (and/or **enhancement of existing strategic parks**) to serve major development
- Where built development is allowed on greenspace, ensure that there is a **net enhancement to functioning of neighbourhood and district green infrastructure** through compensatory measures elsewhere in the strategic park framework.

Owners should have **opportunity** to bid for New Growth Point-related funding to enhance the quality, durability and accessibility of the strategic park framework. Support for owners of private parks and gardens which open on a permissive or subscription basis to extend access, in areas of access deficiency, should be considered.

Local Authorities could **open up public access to restricted community spaces** in areas of deficiency (see inset: New York case study).

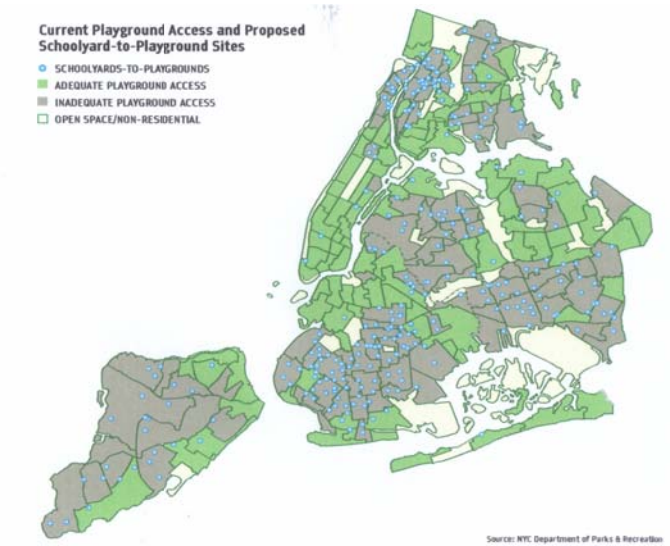
Public and environmental bodies should examine **land holdings**, aiming to purchase/swop land to increase access to the park network.

Coastal parks and promenades need special consideration in **shoreline management planning** due to their vital role in meeting community and economic needs which may not be displaceable or replaceable in the event of loss from sea level rise. There may be a case for defending such areas very robustly to protect uninterrupted linear coastal access.

Investment Plans of agencies concerned with **health protection** and **sport development** should be encouraged to use the Strategic Parks for programmes of therapeutic or athletic use of open space.

## New York Open Space Plan:

New York aims to attract a million new residents. Its Plan for a Greener Greater New York ensures that every New Yorker will live within a 10-minute walk of a park. First they will upgrade land already designated as play space or parkland and make it available to new audiences (such as their schoolyards to playgrounds plan in deficient areas). Second they will extend usable hours through lighting, surfacing and safety improvements. Third they will re-conceptualise streets, sidewalks and pipeline easements as public spaces; collectively creating over 800 acres of park



## Strategic Park Projects (see Figure 5.6)

* = Existing Asset to be managed
❖ = New Asset to be created
● = Enhance existing assets and create new linkages

### Country Parks, Community Woodlands and Commons

1* Testwood Reserve & Broadland Lakes
2● Test to Itchen (Southern Test Valley) Forest Park (Rownhams, Lords Wood, Hut Wood, Chilworth Common and Lakeside Country Park) (Regional Park opportunity)
3* Southampton Common
4● Itchen Valley Country Park (in conjunction with 2)
5● Manor Farm Country Park (in conjunction with Hamble Blueway)
6● Whiteley Woods (part of a Regional Park opportunity)
7● West Walk (part of a Regional Park opportunity)
8● Portsdown Hill (Park Opportunity)
9❖ Alver Valley Country Park, Gosport (Park opportunity)
10❖ Horsea Island (Park Opportunity)
11● Havant Thicket, Staunton Country Park; inc. proposed Portsmouth Water Reservoir (Regional Park opportunity)
12* Queen Elizabeth Country Park
13* Lepe Country Park

### Coastal Parks and Promenades (collectively part of a Waterfront Regional Park)

1* Hythe Pier, Waterfront and Town Square
2● Solent Way: Woolston to Hamble, including Royal Victoria Country Park
3* Marine Parade (Hill Head to Lee-on-Solent)
4* Stokes Bay to Gosport Marina
5● Portsmouth Southern waterfront including Southsea Common
6* Hayling Island waterfront
7* Portsmouth Millenium Promenade

### River Corridor Parks

1* Lower Itchen (Blueway Park opportunity)
2● Lower Hamble (Blueway Park and part of a Regional Park opportunity)

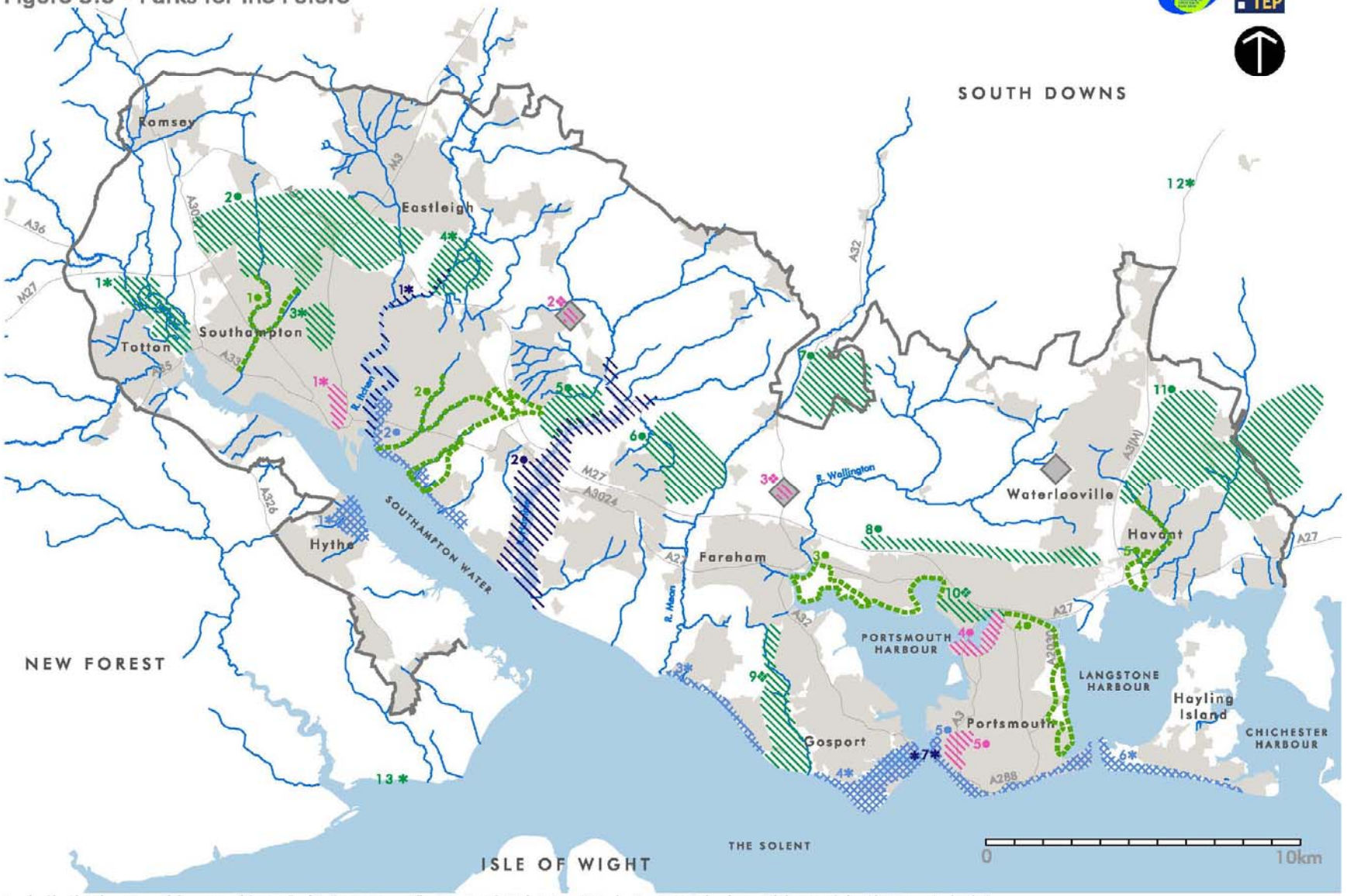
### Urban Parks, Plazas and Civic Spaces

1* Southampton Central Parks
2❖ Park and civic spaces at N/NE Hedge End SDA (Park opportunity)
3❖ Park and civic spaces at North Fareham SDA (part of a Regional Park opportunity)
4● Alexandra Park, Mountbatten Centre, Stamshaw & Tipner Parkway, Portsmouth
5● Portsmouth City Centre Public Realm

### Urban Greenway Parks

1● Southampton Western Greenways
2● Southampton Eastern Greenways
3● Portchester Harbourside
4● Hilsea Lines, Anchorage Park & Langstone Harbourside
5● Havant Greenways

## Figure 5.6 - Parks for the Future






D1358.009A

### Key

- PUSH boundary
- Development areas
- Country Parks, Community Woodlands and Commons
- Coastal Parks and Promenades
- River corridor parks
- Urban Parks, Plazas and Civic Spaces
- Urban Greenway Parks

Note:
See main text for referenced list of parks.

- Existing asset to be managed
- New asset to be created
- Enhance existing assets and create new linkages

# Working Landscapes

## The Challenge

Working landscapes sustain local employment and deliver green infrastructure functions such as recreation, landscape and cultural distinctiveness, biodiversity, locally-grown produce and renewable energy – although increased recreational demands and population pressures could increase the impacts of vandalism and misuse.

New markets will emerge as a result of housing growth e.g. consumer interest in locally-produced food and "food miles" has stimulated farmers' markets and is now interesting supermarkets, although finding economic uses for unmanaged woodlands continues to be an issue.

Traditional land management funding[17] supports on-farm environmental improvements but is not aligned spatially with the proposed growth. Many non-farm operations cannot access land stewardship funding. Changes in funding criteria[18] may offer increased flexibility for urban fringe owners, most likely for diversification and marketing.

**Vision for working landscapes: Landowners enjoying the business benefits of an urban fringe location and producing sustainable food, energy and leisure opportunities.**

**Objectives:**

- Ensuring the contribution made by working landscapes is valued and realised within strategic drivers;
- Increase the public benefit from public land management in the urban fringe;
- Promote development that can enhance existing or emerging markets i.e. woodfuel;
- Provide opportunities for landowners to maximise potential of recreation and tourism;
- Promote environmentally sensitive development in terms of access, biodiversity and landscape distinctiveness;
- Promote the opportunity to support locally grown products such as biomass, food and construction materials;
- Ensure connectivity of urban and rural with spatial and delivery contexts.

[17] Such as Environmental Stewardship – only "entry-level" is likely to be available in the PUSH area
[18] Rural Development Programme for England and the England Woodland Grant Scheme have targeting frameworks which allow geographic or sectoral funding.

## Spatial Context

The natural economy depends partly on location but also on entrepreneurship, and it responds to local and global economic trends. The working landscape strategy is largely opportunistic, but some priority areas are evident. The working landscapes concept map (Fig 5.7) shows the urban fringe countryside. as related to the following working landscapes:

- 'Forest of Bere 'mixed farmland/estate woodland
- Ampfield, Baddesley & Test Valley mixed farm/woodland ('Test Valley and Baddesley')
- Leisure countryside between Southampton and Eastleigh ('Southampton and Eastleigh Gap');
- River Hamble Navigation.

Middlesbrough Food: This project stimulated a massive increase in local food growing in Middlesbrough during 2007; culminating with a "town meal". They produced a food map of the town and surrounding countryside highlighting existing growers and stimulated schools, community groups and individuals to grow their own produce, often in underused areas of public realm.
www.dott07.com

Some farmed areas are not core to the natural economy; typically small urban fringe areas where factors such as development hope value, absentee landowning and population pressures dominate agricultural practice. Many farms in these areas are managed under "stewardship" arrangements.

Much urban fringe countryside is publicly owned e.g. by Forestry Commission and Hampshire County Council, who commit to green infrastructure, open access and stewardship. Their corporate, statutory and financial obligations mean they must form alliances and partnerships with the private and voluntary sector to maximise their operational efficiency in delivering green infrastructure.

## Strategic Response

**Local Development Frameworks** (LDFs) should:

- Promote renewable energy and use of locally sourced materials in new developments e.g. through codes for sustainable construction.
- Support appropriate commercial and sporting leisure opportunities in the urban fringe which deliver green infrastructure functions, particularly where these are located in walking or cycling distance of urban communities (subject to satisfying planning policy and needs tests).
- Require urban development within easy reach of the countryside to provide and promote access to the countryside.

**Land management** funding support should be more responsive to the **growth agenda** - having regard to proximity to urban areas with deficiencies of access to greenspace. This might include site management funds and support for owners to diversify operations and support visitor activity.

Special consideration should be given to supporting providers of **"wilderness"** who may not be able to benefit from increased visitor numbers because of site sensitivity e.g. coastal grazing marsh managed by the Wildlife Trust.

Owners and managers[19] who **cannot easily access** land management funding should be supported in **diversification** of their operations, if their location means they could provide **strategic green infrastructure** functions.

An **urban food map** would highlight the location of specialist producers and could also stimulate interest in local food production within urban areas (see inset: Middlesbrough Food case study).

Public sector land owners could **review their property portfolio** to assemble contiguous areas with high public benefit from green infrastructure provision. This may involve land swops with private owners and developers.

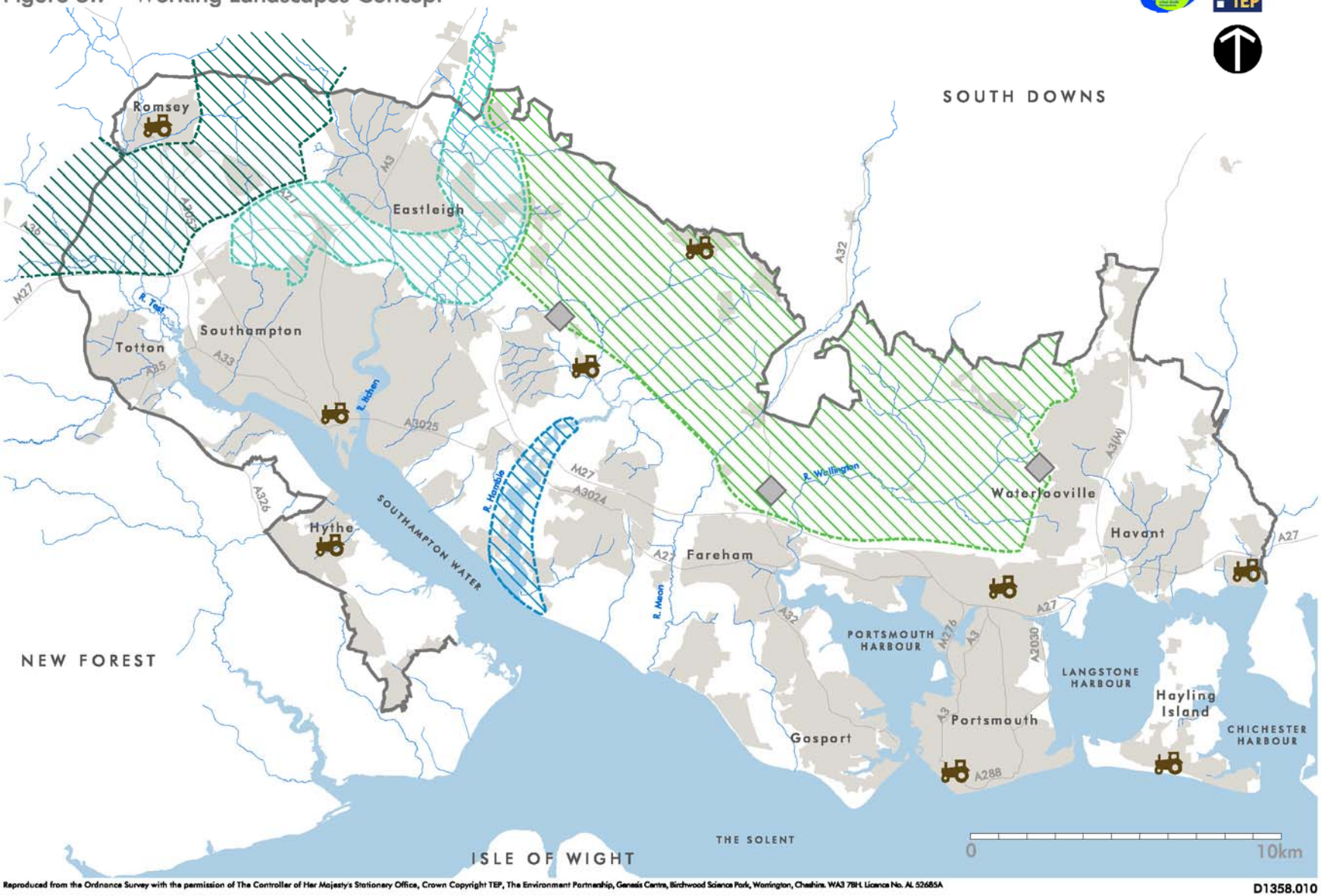
Partnerships between **health agencies and rural businesses** might deliver therapeutic outcomes and provide alternative revenue. (see inset: 'Farming for Health' Dutch case study).

Farming for Health – a partnership of business, community and care

Around 700 Dutch farms take part in a project sponsored by the Ministries of Agriculture and Health. The scheme aims to both diversify rural economies and boost wellbeing in vulnerable groups by providing care facilities in a farming environment.
The farms offer care, accommodation, therapy and rehabilitation to vulnerable people at different life stages. 40 farms specialise in providing day care and sheltered accommodation to older people, catering for small groups of 6-8. The farmers receive some basic training in care and must learn to supervise their community effectively, but the strong emphasis is on maintaining a genuine working farm environment, with advanced care needs provided by visiting specialists. Participants are under no obligation to work, but are encouraged to help with a wide variety of day-to-day tasks appropriate to their physical and mental functioning.
Studies point to significant benefits for participants, including improved self-esteem, social skills, social inclusion, physical health, wellbeing and sense of purpose.

[19] Typically these include equestrian enterprises, golf courses, holiday villages, marinas, small woodland owners and/or country sport operators.

## Figure 5.7 - Working Landscapes Concept






D1358.010

### Key

- PUSH boundary
- Development areas
- Forest of Bere (mixed farm and woodland)
- Southampton and Eastleigh Gap (Woodland and leisure)
- Test Valley and Baddesley (mixed farm and woodland)
- River Hamble navigation
- Farmers Markets and Rural Towns

# Landscape, Culture & Heritage

## The Challenge

The area has a very rich landscape heritage, which has persisted in the face of massive landscape change caused by urbanisation, prosperity and post-WWII agricultural intensification. Both urban and rural landscape and heritage foster human connections with the place and with previous generations.

The area adjoins the unique cultural landscapes of the New Forest, the South Downs, Chichester Harbour and the waterfront, all of national value.

A strategy for protecting and enhancing landscape distinctiveness within the PUSH area is essential for smart growth, and helps protect the National Park and AONB landscapes from erosion of character.

Our challenge is to restore landscape and heritage distinctiveness to a quality that befits an area that connects the national parks and generates tourism benefits.

**Vision for Landscape, Cultural and Heritage Distinctiveness: A green network which sustains a diversity of landscapes, heritage assets and visual experiences to allow for enjoyment, celebration and reflection.**

Objectives:

- **Safeguard** and **increase access to landscape heritage assets** and their settings within a green network;
- Improve **awareness** of landscape, cultural and heritage significance, especially where monuments and landscapes are "at risk";
- Promote **environmentally sensitive land management** in areas of historic or archaeological value;
- Promote the collective **cultural and historic** values of the **waterfront** and the **Forest of Bere** as distinct "brands" within a green network;
- Ensure new developments incorporate **high-quality public realm**, using locally-sourced construction materials and designed in accord with the Landscape Character Assessment to positively contribute to **landscape character**;
- Ensure the **strategic park network** and other public realm incorporates **art**, both existing and newly-commissioned.

## Spatial Context

The PUSH area consists of several distinctive character areas, shown at Figure 5.8. The Research Report details each area in terms of its distinctive biodiversity, heritage and visual character. At a more detailed level, Local Character Assessments, including townscape and seascape assessment will also guide design and implementation of the green infrastructure network.

Fig 5.9 shows heritage areas, landmarks and prospects. These are the areas where the environment of urban South Hampshire is experienced. **Woodland Heritage** landscapes and **Historic river valleys** are the most distinctive of the rural south Hampshire landscapes.

**Heritage Hubs** are concentrated areas of significant historic and/or cultural interest. Most include built heritage and depend on a setting within a green infrastructure network. There is a distinct set of **Defence/Naval Heritage Hubs**, comprising the forts, naval harbours and other installations.

**Landmarks** are notable built or natural features, of heritage and cultural value. Some are due to landform e.g. the Portsdown chalk scarp and the Horsea Island landfill. Some, such as Southampton Common, are landmarks by virtue of their prominence and cultural significance in an urban setting. **Viewpoints** are public places where extensive views across land and sea can be obtained.

## Strategic Response

Heritage landscapes, hubs, landmarks and viewpoints need to be included in the green infrastructure network; in many cases they can be incorporated into an existing park, or a proposed park opportunity.

**Local Development Frameworks** (LDFs) should;

- Identify heritage landscapes, hubs, landmarks and viewpoints (many will already be identified and protected);
- Ensure these are incorporated into the green infrastructure network;
- Ensure these sites are safeguarded from inappropriate development that affects their accessibility and visibility from the surrounding green infrastructure network;
- Promote public access and awareness of these (noting operational and environmental sensitivities);
- Promote the use of locally-sourced materials in construction projects;
- Promote the use of public art at heritage landscapes, landmarks and viewpoints; and also as a part of the public realm and open spaces associated with new developments;
- Account for / carry out landscape and / or townscape assessments and sensitivity studies for all development proposals.

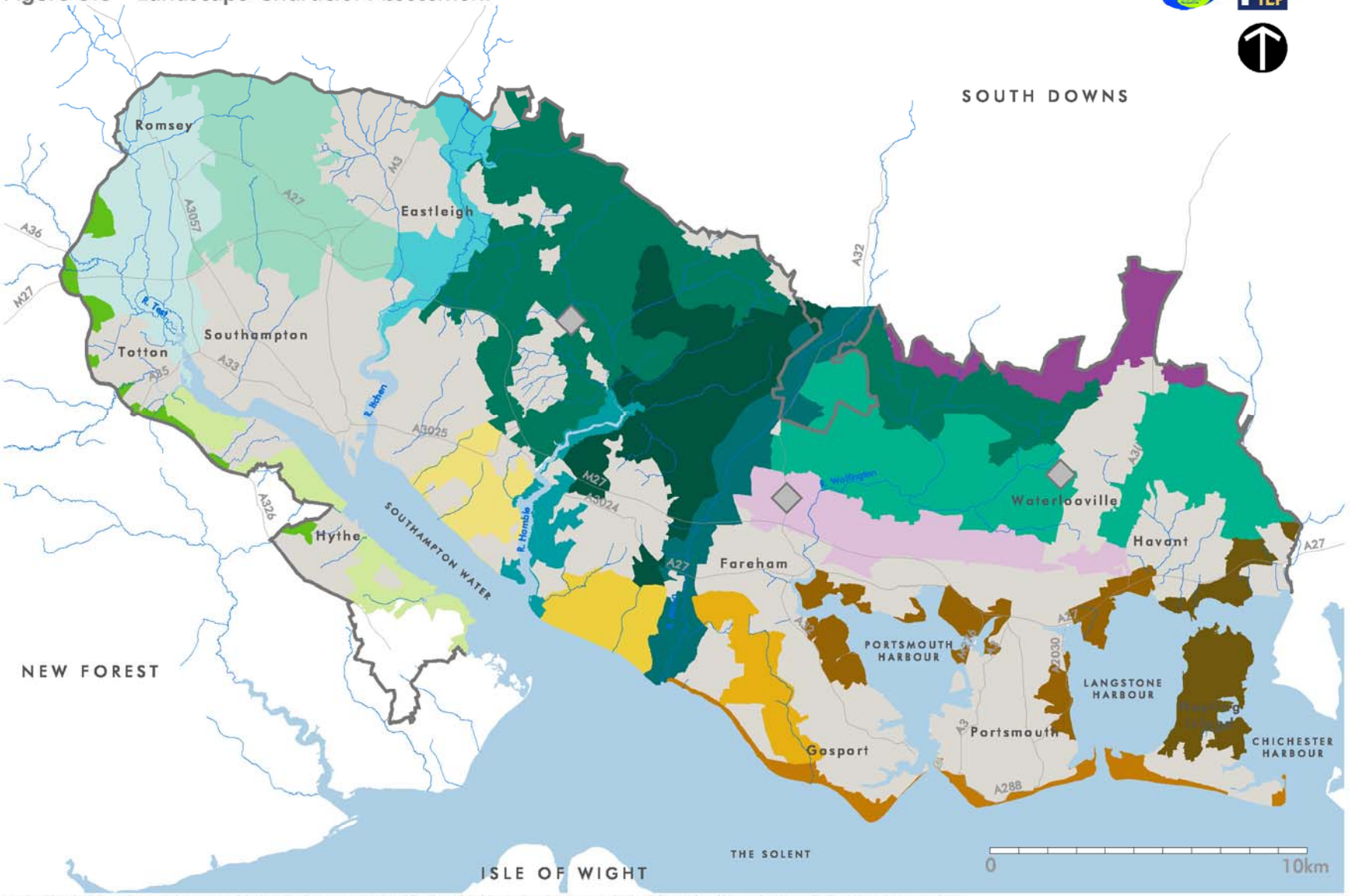
**Southampton & Eastleigh Strategic Gap (Test Valley):** This distinctive mosaic of conifer and broadleaf woodlands, rivers, floodplains and farmland is a green infrastructure asset for its neighbouring communities. A network of paths link Forestry Commission woodlands and Council Country Parks. Sporting and leisure destinations, such as golf, angling, athletics rely on a green setting. The distinctive landscape functions as an economic front door, with motorway, rail and airport gateways

Land Management Funds should be directed towards management of the woodland heritage and historic river valley floors. Landscape and planting proposals associated with built infrastructure should take account of the Landscape Character Assessment and the Hampshire Biodiversity Action Plan.

A Public Art strategy for PUSH's infrastructure development should be considered – this would include proposals for inclusion of art in the proposed built infrastructure and also for co-ordination between public art and green infrastructure provision.

**Portsmouth and Gosport's world-class waterfronts are rich in heritage** – this aerial view stimulates ideas on how the public realm could evolve to increase pedestrian and visual linkages between open spaces, neighbourhoods, businesses and the waterfront.

# Figure 5.8 - Landscape Character Assessment



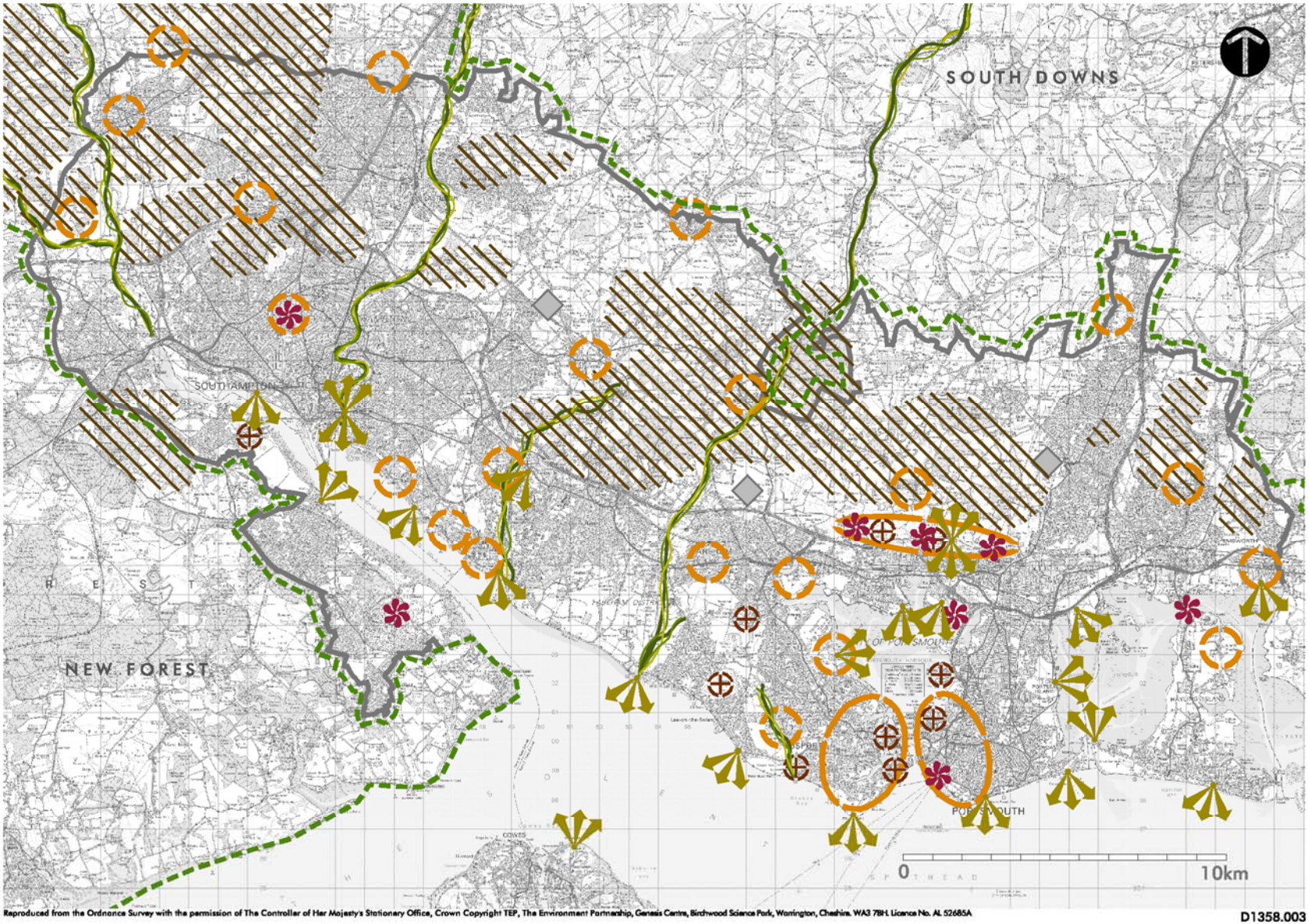



D1358.007

## Key

- PUSH boundary
- Development areas
- Urban areas
- Central Forest of Bere
- Northern and Western Forest of Bere
- Southern and Eastern Forest of Bere
- Ampfield and North Baddesley Woodlands
- Valley of the River Test
- Itchen Valley
- Hamble Valley
- Meon Valley
- Waterside Parishes
- Western Farmland Fringes
- Old Bursledon, Hound and Hamble Coastal Fringe
- Chilling and Bromwich Coastal Plain
- Gosport, Fareham and Stubbington Gap
- Spithead, Southsea and Hayling Bay Coast
- Inland and Harbourside Coastal Plains
- Hayling and Chichester Harbour Coastal Plain
- Portsdown Hill and North Fareham Downs
- North Denmead, Catherington and Chalton Downs

## Figure 5.9 - Landmarks, Prospects and Heritage Hubs






D1358.003

Key

- PUSH boundary
- Existing/proposed National Park boundaries
- Heritage hubs
- Historic river valley
- Prospect
- Development areas
- Woodland heritage
- Defence/naval hub
- Landmark

# Supporting Economic Growth

## The Challenge

The strong brand' of urban South Hampshire includes its coast and natural environment. This gives it a competitive edge. It is also critical to the tourist and visitor economy.

Technological advances and the growing knowledge economy require highly skilled workers, whilst the same advances will remove the more standardised occupations in the middle rung. Low skilled non-routine jobs that cannot be standardised will see expansion, including in tourism and healthcare sectors.

The emergence of this "hour-glass economy", where jobs are concentrated at the higher and lower ends of the skill spectrum emphasises the need for lifelong learning. Cultural and green infrastructure can help develop such life skills. Green infrastructure also encourages retention of graduates and high-value workers through providing a diversity of leisure and sporting venues.

High quality of public realm and good connections between economic centres and parks will improve the image and perceptions of the area to encourage civic pride, build business confidence and stimulate the visitor economy.

Areas of deprivation in Hampshire are well established and there is a risk inequalities will persist. Significant deprivation can be masked by the juxtaposition of deprivation and affluence. Social exclusion is unrealised potential for the wider community, as well as significant cost. Conditions in underachieving areas, and for specific groups, must be improved.

**Vision for supporting Economic Growth: Attractive and well-maintained spaces which speak of quality and vibrancy. Places to learn new skills.**

**Objectives**

- Maintain a **vibrant, distinctive and high-quality environment** at points of **high visibility**
- Use environmental assets to provide a venue for acquisition of **new skills at all stages of life**
- Stimulate job creation in the **visitor economy**, especially sectors dependent on a green setting
- Provide for **leisure and sporting needs** of high-value workers and graduates to encourage their retention in the area

## Spatial Context

Figure 5.10 illustrates the areas of priority where green infrastructure can most support economic growth. Principal **transport corridors** and sub-regionally important **strategic employment sites** (as defined in the PUSH Business Plan[20]) are central to PUSH's economic growth strategy. The sites mapped are the largest campuses, including the South Hampshire Strategic Employment Zone in Eastleigh.

[20] A Brighter Future for South Hampshire: Moving to Delivery – PUSH Business Plan 2008-11 Volume 1

Arrival (and departure) is a fundamental aspect of the cultural and economic life of the area. The **principal arrival points** are at Southampton Airport, the mainline stations, Portsmouth and Southampton Docks and the seafronts visible to incoming craft.

**Civic and Town centres** (main centres) are vital to the business and retail economy. The quality of public realm, especially civic green spaces, is an important attractor, and provides respite for city-centre workers. Southampton Central Parks are recognised for supporting the city-centre economy.

**Gateways** are also critical to perception of the economic confidence and brand of an area. These are associated with transport corridors and interchanges.

The plan uses data from the indices of Deprivation (CLG) to show communities of relatively **low skill levels** – here green infrastructure assets can be used for improving skills and confidence. Communities of **highest skill level** are also shown – in order to retain these workers in the local economy, maintenance of a high quality of life is critical.

Other parts of the green infrastructure network are also important to the economy; and are shown in other concept plans:

- Green destinations – See Fig 5.5
- Parks for the Future – See Fig 5.6
- Rural service centres & farmers markets – See -Fig 5.7

## Strategic Response

In line with PUSH Policy SH8 (Main Centres), LDFs should define the future identity of main centres, emphasising the need for high quality, accessible public realm and good access to parks, open space and the waterfront.

Gateway projects should be initiated, using public art and the natural environment at key arrival points – these should be integrated, where possible, into managed open space so they can act as a visitor attraction.

LDFs should promote development of visitor facilities which encourage greater use of the Green Network for sport leisure and recreation (subject to environmental sustainability tests).

Joint Working with agencies such as the Learning and Skills Council and SEEDA should be initiated in appropriate ways to use environmental assets as opportunities for basic skills development.

Campuses, industrial parks and retail parks can sustain areas of biodiversity and built or landscape heritage. They are areas where land use can change frequently, resulting in opportunities for defragmenting habitat corridors creating community open space and linear multi-user routes. They can also benefit from natural vegetation for cooling or sustainable drainage. LDFs should promote a masterplan approach to campus (re) development and require developer to demonstrate uplift in green infrastructure when building, refurbishing or re-designing.

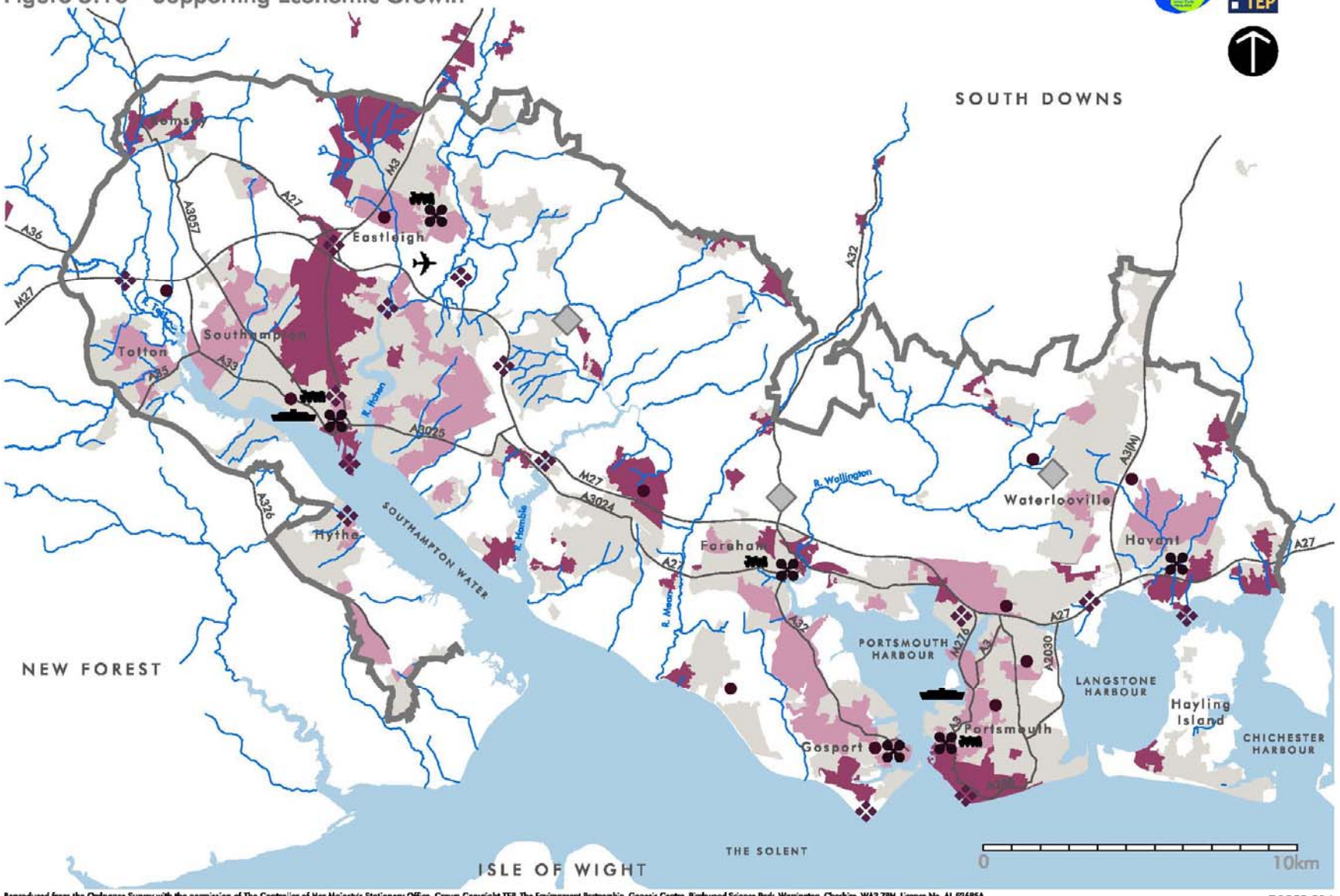
NWDA commissioned economic consultants Ecotec to assess benefits flowing from investments in Green Infrastructure; measured in terms of:

- Direct economic outputs.
- Indirect economic outputs.
- Cost reductions to the public and private sectors.
- The management of risk.

The report strongly recommends that economic development agencies in the North West grasp the opportunities presented by the Green Infrastructure agenda for three key reasons:

1. to address the global issue of climate change (risk and cost reduction).
2. to address the UK wide prevalence of obesity and poor health associated with lack of exercise and poor diet.
3. to develop the image of the North West as a 'green' region, attractive to the entrepreneurs and skilled workforce necessary in today's knowledge economy.

Figure 5.10 - Supporting Economic Growth






D1358.014

Key

- PUSH boundary
- Development areas
- Strategic employment sites
- Civic and town centres
- Principal arrival points
- Gateways
- High skill levels
- Low skill levels

# Section 6

# Recommendations to PUSH: Spatial Framework

## Goals

Arising out of the green infrastructure vision for South Hampshire, the following green infrastructure goals are suggested, which list the priorities for delivering multifunctional green infrastructure and guide the subsequent green infrastructure Concept and Network Plans:

1. All people should live within **20 minutes cycle** of a **locally-valuable greenspace**;

2. From such locally-valuable greenspaces, people should be able to **reach** the **coast**, the **nearest river** and the **rural hinterland** (the **Forest of Bere)** along a **green access network** (this concept is defined as a "Green Loop");

3. **Urban areas** should be **leafy and walkable**, and people should live within **300m of a natural greenspace**;

4. A **network** of strategic multifunctional **parks** should be available within **20 minutes drivezone (approximately 10km)** of all residents. The following types of park are envisaged, and in many cases several of these can be integrated into each strategic park unit:
    a. Marine parades and promenades
    b. Coastal natural parks
    c. Civic plazas and central parks
    d. Sporting and outdoor recreation parks
    e. River parks (navigation, leisure, biodiversity, landscape)
    f. Country Parks
    g. Urban commons and community woodlands
    h. Nature Reserves
    i. Linear Parks (e.g. along watercourses, transport corridors)
    j. Vistas and landmarks
    k. Local food-growing
    l. Parks forming the setting for built and maritime heritage
    m. Formal gardens

5. The **distinctive landscape and heritage characters** of our coastal promenades, our civic greenspaces, our built heritage and the rural hinterland (Forest of Bere) should be enhanced and interpreted;

6. The **waterfront** is perceived as a **regional park**, where its green assets are planned, created and managed in an integrated way;

7. Major multi-purpose inland **regional parks** should be available to deliver sport, recreation, tourism and environmental benefits and take pressure off the New Forest, the South Downs and the natural coast.

8. **Economic gateways** should be celebrated through landmarks and high-quality landscapes; into our major urban areas and into the South of England from the ports

9. All **new development** and **regeneration** should follow **eco-towns principles;** safeguarding existing assets, increasing vegetation and surface porosity; and enjoying access to the green network.

10. **Refuges for sensitive biodiversity and tranquillity** should be protected, managed and (where necessary) created, integrating management across the network of refuges to adapt to and mitigate against continuing coastal and climatic change;

11. **Near-continuous biodiversity networks** should be established;
    a. from east to west along the coast
    b. from the New Forest, to the Forest of Bere and the South Downs
    c. from the Solent into the Forest of Bere

12. The green infrastructure network will consist of **healthy soils** in urban and rural catchments, with green spaces and green streets being used to **manage floods**, **attenuate surface water flows** and **mitigate urban heat islands.**

13. Investment to create the proposed green network should use existing assets and partnerships; which are generally strong. Co-provision of the green network alongside investment in sport, health and flood management is particularly desirable.

14. **Priority** areas for intervention should be where green infrastructure will benefit **communities in need**, based on deprivation, health, demographic and mobility criteria;

15. **Early intervention** will be needed in existing urban areas, because these will be the focus for most growth in the period to 2020.

## Spatial Concept

The Concept Plan (Fig 6.1) shows proposals for a spatial framework for green infrastructure; indicating the broad areas of investment priority.

**Multifunctional Areas** should be managed as near-continuous tracts of accessible and actively-used land. Multifunctional areas include both countryside and urban greenspaces. Most of the active recreational uses, green destinations and the green access network will be located in priority areas. The full range of green infrastructure functions should be safeguarded, enhanced and promoted in multifunctional areas.

An assessment of multifunctionality is important to understand what current greenspaces can provide to new and existing communities. As well as the known multifunctional assets shown here, it is also important that PUSH considers opportunities to change the form and / or function of other assets that aren't currently considered as being multifunctional, so that they are better able to serve people and the environment.

**Natural Refuges** are areas of tranquillity and wilderness where natural interests dominate landscape planning. Biodiversity, climate change and heritage functions should be safeguarded and enhanced through coastal and riparian habitat creation and management in line with existing management plans and obligations (e.g. Shoreline Management Plans). High-impact human access would not be appropriate.

**Stepping Stones** are where access and biodiversity links should be enhanced across relatively fragmented landscapes where it would be impractical or unnecessary to establish continuous corridors of multifunctional green infrastructure.

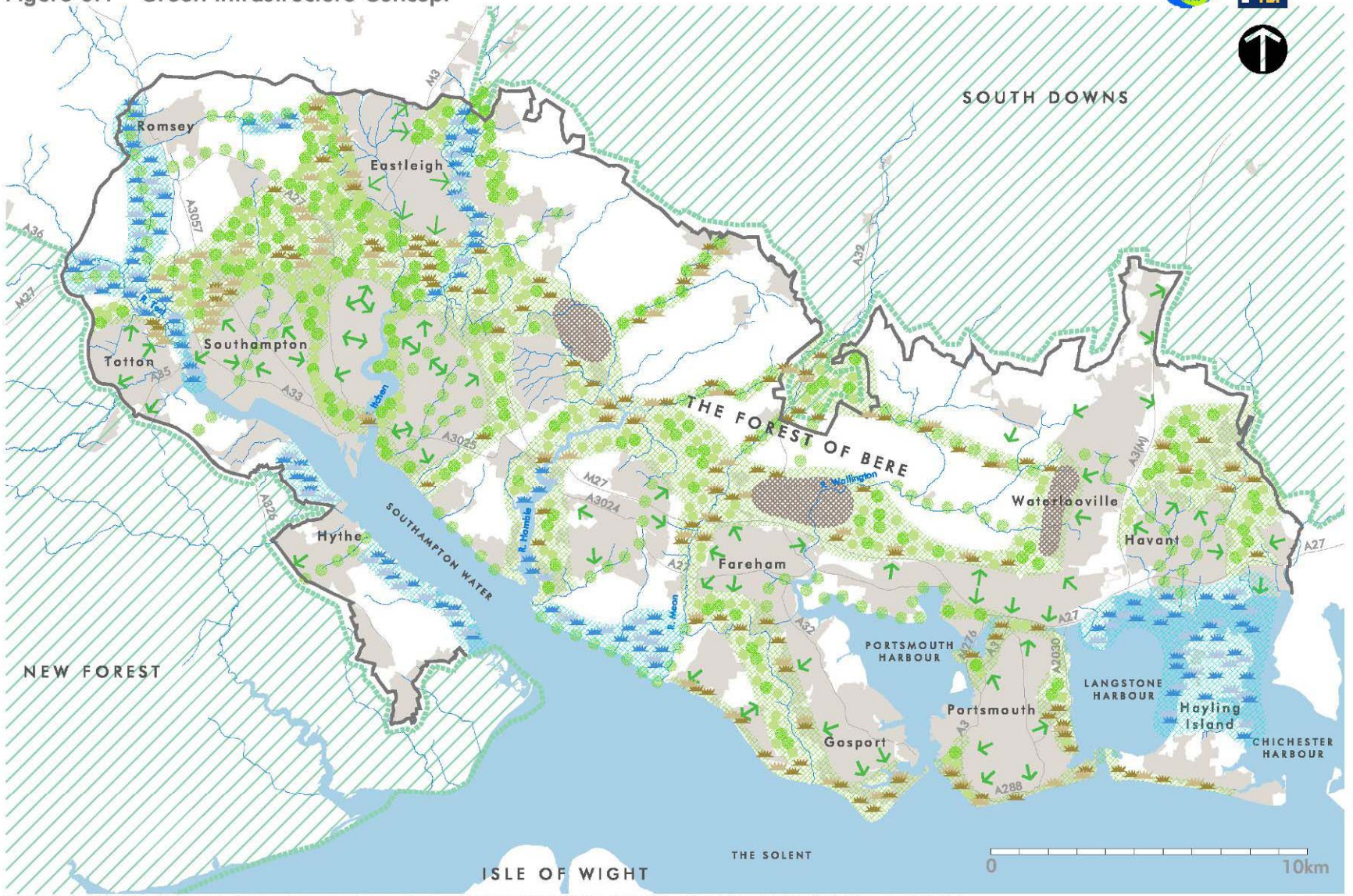
**Urban Connection Points** are zones where it is important to encourage physical access to green infrastructure from residential neighbourhoods. Such permeability might be achieved through signage, awareness-raising, removal of barriers or through re-prioritising of streets and public spaces.

Natural Refuges are of equal priority to the other parts of the green infrastructure framework, but are specifically illustrated because they provide space for coastal and river ecosystems (most of which are in the Natura network of protected sites) to adapt to the forces of climate change, urbanisation and population pressures which threaten the integrity of our environment.

It is important to recognise that the whole of the proposed Green Network should be implemented in order to make an adequate response to these forces.

Some areas of the plan are not coloured – this does not mean they have no green infrastructure assets or functions, but evidence suggests these areas have relatively limited "multi-functionality" and lower potential to deliver multiple public benefits than the areas shown in colour. Assets in these areas still need safeguarding and enhancing in line with recommendations shown in the functional strategies illustrated at Section 5.

## Figure 6.1 - Green Infrastructure Concept






D1358.011

### Key

- PUSH boundary
- Existing/proposed National Park boundaries
- Multi-functional green network
- Natural blueways and refuges
- Urban connections to the GI network
- Stepping stones through the landscape
- Significant new development areas

Note - This plan must be read in conjunction with Fig 6.2 (Green Network) and the concept plans in Section 5 which include more detail.

## The Green Network Plan

The Green Network Plan (Figure 6.2) is a detailed interpretation of the spatial Concept Plan. It allows an implementation strategy to be developed because it organises the necessary actions into categories of shared geography or shared function.

The Green Network consists of a number of headline initiatives of regional significance supported by a range of more local projects:

A **Waterfront Regional Park** is an organising concept for a series of initiatives appropriate to the distinctive character of the coast and tidal rivers.

It encompasses coastal reaches (termed **Windows on the Solent**) at Hythe, Woolston to Hamble, Warsash to Hill Head, Hill Head to Gosport, Southsea Common, Hayling Island and Portchester.

The waterfront regional park also encompasses **Blueway Parks** proposed for the lower River Hamble to aid its development as a multi-functional natural resource of high economic value while safeguarding its rich heritage. The lower Itchen is of similar value.

The waterfront regional park also encompasses **Coastal Refuges** - areas with a "wilderness" ethos of tranquillity and predominance of biodiversity, which should gradually move to a state where many of their open spaces are managed as priority coastal habitats; thus ensuring net biodiversity gain across the sub-region. The largest is proposed for farmland at Hayling Island; along with Chichester and Langstone Harbours. These coastal refuges are shown fully at Figures 5.1and 6.1.

The relationship between the coastal green infrastructure proposals and the Natura network is discussed at the end of this Section.

At least two proposed inland **Regional Parks** would serve the recreational, leisure, health, sport and biodiversity needs of the two major urban areas. For the west, a suitable area is between the Rivers Test and Itchen (i.e. between Southampton and Eastleigh). For the east, the most likely location is at Staunton Country Park/Havant Thicket; but the River Meon / Whiteley Woods/West Walk area may also be suitable. These inland regional park proposals are shown as **Green Infrastructure Gateways** (specifically numbers 2,4,5 & 9).

Other strategically-significant green infrastructure gateways are major civic spaces, important country parks and woodlands of city-regional importance for a variety of functions. Most are already accessible to the public, but some are "opportunities" requiring further feasibility study.

The essence of green infrastructure gateways is multi-functional management. They would deliver significant public benefit by virtue of their "offer" in social, economic and environmental terms, would be highly accessible and sustain a diversity of uses, accepting there will be zones of environmental sensitivity where access may be restricted.

Towns and cities should be managed as Living Cities, to ensure that all people have easy access to green and shaded places that are safe, accessible and useful for community cohesion. This is a broad concept and will take different forms in differing townscapes: in dense urban areas such as Portsmouth the focus would be on pocket parks, high-quality central parks, wildlife gardening and allotment-keeping.

Living Cities would also encompass an aspect of the strategy not shown on the spatial plan – i.e. an initiative to sustain **porous catchments** and **healthy soils** by increasing vegetation cover and by using green spaces to manage surface water in urban areas. During redevelopment, particularly of brownfield sites. there is scope for introducing measures such as green roofs, swales, river restoration and engineered wetlands. In the urban fringe, woodland planting, floodplain habitat creation, river management and sustainable grazing can increase the capacity of soils and floodplains to absorb storm water during periods of heavy rain.

Another component of the Living Cities would be a series of **urban wildlife corridors whi**ch would also provide human access to nature through urban areas. These corridors would link urban areas with the coast and countryside as shown on the Green Loop concept (within the 'Green Access and Movement' implementation programme).

**A multi-user green access network** would interconnect the entire area and provide every resident with an easy access to a choice of destinations, both in the local neighbourhood and also in the wider countryside and coastline.

A multi-user network is being designed by Countryside Access Plan Working Groups, in conjunction with PUSH partner authorities and consists of population-centred routes and some longer-distance routes. The routes shown on Figure 6.2 are illustrative of this proposed network, although detailed developmental work is ongoing.

New developments, particularly the Strategic Development Areas, should be developed on **Eco-towns** principles: ensuring that the built infrastructure incorporates green design techniques, that the public realm allows for pedestrian and cyclist access and includes places for sport, leisure, biodiversity and local food growing.

The green infrastructure strategy also identifies **heritage hubs** in areas of particular environmental significance not already encompassed within the regional parks and the green infrastructure gateways. The term heritage includes built, cultural and natural features, usually in combination.

The strategy also seeks to sustain **working landscapes**, supporting farmers, woodland owners and land-based entrepreneurs in their efforts to productively manage land while also delivering societal benefits.

Finally, and perhaps most importantly, the strategy seeks to build **community capacity** to demand, and take responsibility for, high quality cleaner, safer spaces.

## Relationship with Natura Network

Statutory obligations are to maintain Natura sites in a favourable condition. This affects decisions about activities which influence the sites, even if the activity is not within the site itself.

Most of the coastal sites are subject to a range of other obligations concerned with navigation, farming, access, military activity, flood defence. Sites are affected by existing population pressures to a greater or lesser degree.

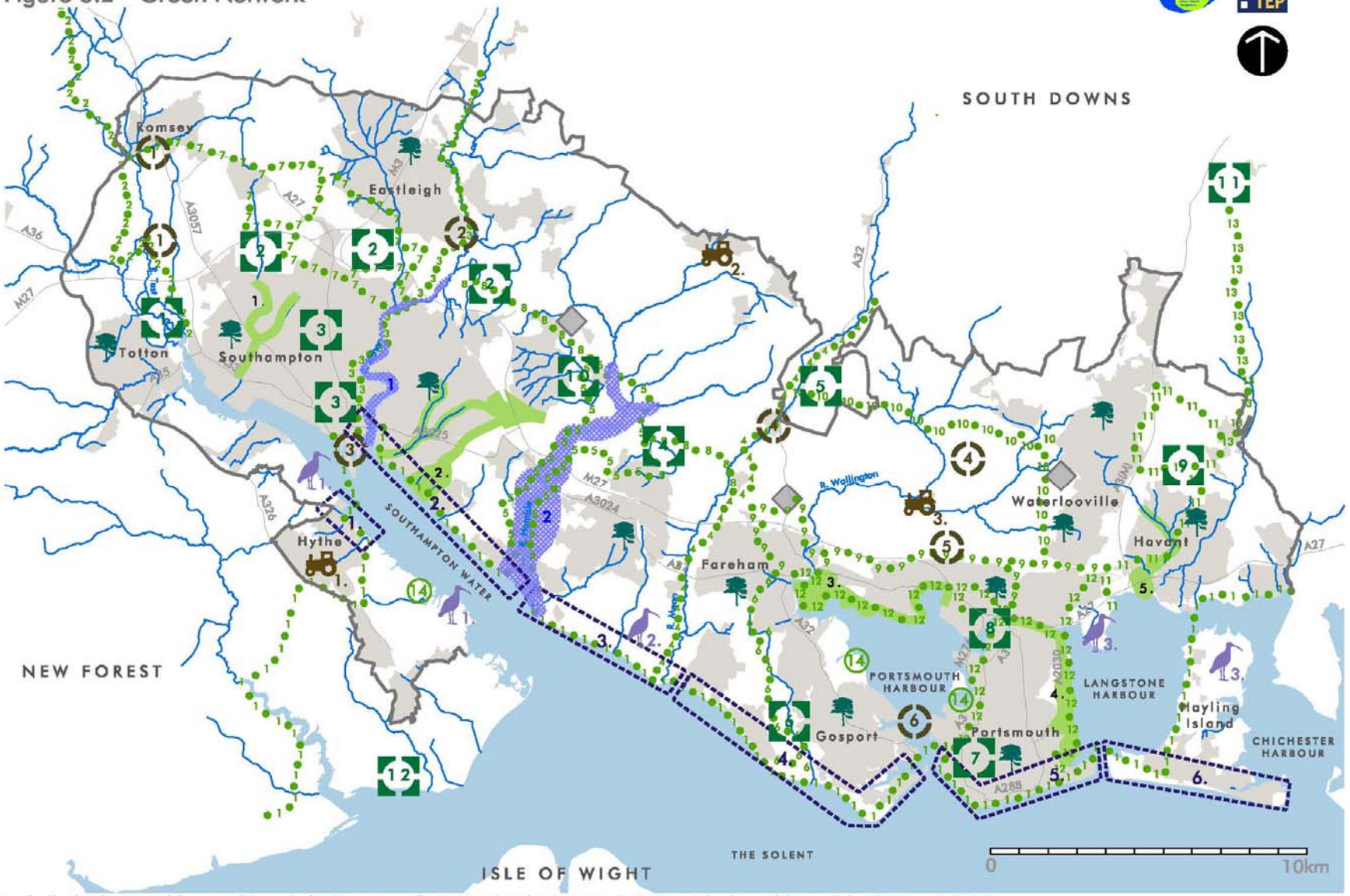
Site managers are experienced in implementing land management which meets the competing, sometimes conflicting, constraints imposed by population pressures and statutory obligations.

The recommendations laid out in this document do not constitute a site management strategy – such decisions must continue to be made locally, taking specialist evidence and strategic guidance.

The recommendations do however ensure that the coastal sites, and their immediately neighbouring land are all prioritised as strategically-significant assets, within the context of a waterfront regional park. The coastal refuge proposal encourages a proactive approach to managing coastal habitats in the face of inevitable sea-level rise and population pressure, by encouraging habitat development on adjoining (presently un-designated) land. This would enable a "no net habitat loss" approach and aim for a net habitat gain across the whole waterfront, and over time, to be implemented; even in the face of change.

Other Natura sites and buffering land are shown as Blueway Parks or Windows on the Solent or Green Infrastructure Gateways or Urban Greenways. These proposals, while multifunctional, allow for biodiversity interests to be fully considered during detailed planning stages. This already occurs, for example in the River Hamble SPA (see case study under the 'Coast and Water' implementation programme).

# Figure 6.2 - Green Network






D1358.012A

## Key

- PUSH boundary
- Eco towns
- Green infrastructure gateways
- Windows on the Solent
- River corridor parks
- Coastal refuges
- Living cities
- Urban wildlife corridors
- Green access network
- Heritage hubs
- Working landscape hubs

Access proposals not shown -
- 15 Walkability and Green Streets in Portsmouth, Southampton and Gosport
- 16 The population-centred access network

Notes -
- See main text for referenced list of projects.
- This plan must be read in conjunction with Fig 6.1 (Green Infrastructure Concept) and the concept plans in Section 5 which include more detail.

## Initiatives and Projects in the Green Network – (Fig 6.2)

### Green Infrastructure Gateways (* potential Regional Park resource)

1. Southampton West End, Testwood & Broadlands Lakes *
2. Test to Itchen Forest Park *
3. Southampton Common and Central Parks
4. Whiteley Woods *
5. West Walk *
6. Alver Valley
7. Old Portsmouth & City Centre Public Realm
8. Horsea Island, Tipner & Alexandra Park
9. Havant Thicket *
10. Manor Farm Country Park
11. Queen Elizabeth Country Park
12. Lepe Country Park

### Solent Waterfront Regional Park - Windows on the Solent

1. Hythe
2. Woolston to Hamble, including royal Victoria Country Park
3. Warsash to Meon
4. Hillhead to Gosport
5. Portsmouth Southern Waterfront
6. Hayling Coast

### River Corridor Parks

1. River Itchen
2. River Hamble Navigation

### Coastal Refuges

1. Hythe and Dibden Coast
2. Titchfield Haven, Meon and Chilling
3. Hayling Island, Langstone and Chichester Harbour

### The Green Access Network

1. Solent Way
2. Test Valley Way
3. River Itchen Way
4. River Meon Way
5. River Hamble Way
6. Southampton/Eastleigh Gap
7. Itchen to Hamble to Meon (N/NE Hedge End SDA)
8. Portsdown Hill and Fareham routes
9. Waterlooville through the Forest of Bere
10. Havant routes
11. Portchester, Horsea Island, Hilsea and Portsmouth Eastern Harbourside
12. River Alver Way
13. Queen Elizabeth Country Park
14. The Inaccessible Coast
15. Walkability and Green Streets in Portsmouth, Southampton and Gosport
16. The Population-centred access network

### Living Cities

### Urban Wildlife Corridors

### Heritage Hubs (natural, cultural and built heritage)

1. Romsey, Broadlands and the Test Valley
2. Eastleigh Rail and Itchen Navigation
3. Southampton Docks
4. Forest of Bere
5. Portsdown Hill
6. Portsmouth and Gosport Naval and Maritime

### Working Landscape Hubs

1. Hythe
2. Bishops Waltham
3. North Fareham/Southwick

# Section 7

# Achieving the Vision

# The Implementation Challenge

The recommendations put forward in this report will inform the final Green Infrastructure Strategy for South Hampshire, which will need to be fully embedded in the plans and funding programmes of all actors in the growth of the sub region:

- Decision-makers, funding agencies and the community all need to be confident that green infrastructure is essential for smart growth – "prosperity while enhancing the environment".

- Green infrastructure involves use of land and investment of funds: in a densely-populated area, land, property and money are subject to many competing demands. A strong evidence base, founded on the concept of public benefit, is therefore essential to advocate for environmental assets.

- Policy support alone is not enough to secure public and private funds. A coherent programme of attractive projects, targeted at the aspirations of numerous funders, must be presented.

- Implementation and long-term management of green infrastructure projects will be carried out by many individuals, trusts, private companies, environmental bodies, government and local authorities. Partnership working and willingness to understand the remit of other agencies is essential.

Implementation of the green infrastructure strategy will require more than simply the continuance of existing activity, important though that is. Given the rapid pace of demographic and climate change, an equally rapid escalation of activity is needed to ensure the environment remains in good heart to provide the "natural life-support services" we rely on.

As the existing environment of South Hampshire is generally in good condition, much of the strategy involves enhancement and multi-purpose management of existing assets. This brings a challenge in that a relatively high proportion of the required funding is for revenue, rather than capital, projects.

A second challenge is the relative youth of PUSH as a multi-authority governance organisation. Green infrastructure requires cross-boundary collaboration and sharing of resources across Local and National Park Authorities and others: concepts that are easier to read about than deliver.

A third challenge is that returns on green infrastructure investment take extended periods of time. However, like any infrastructure, the green network should be provided ahead of (or at least alongside) growth. PUSH's priorities for early years of growth (2006-2016) focus on brownfield recycling and urban infill, leaving major Greenfield development till post 2016. Greenfield development is likely to yield higher returns than brownfield, meaning that there is less scope for private sector contributions during the early years.

It is critical throughout to understand that this is a long term process that will rely on the partnership and co-operation of many organisations and individuals to move forward from "business as usual" to securing the many benefits green infrastructure can bring for current and future populations.

PUSH Authorities should build on the work and strategic recommendations set out in this document and produce a Green Infrastructure strategy. The strategy should include at least:

- Details of how green infrastructure will be translated into policy across the sub-region
- A cohesive package of sub-regional projects attractive to a range of funders
- Identification of quick wins or early actions – e.g. a feasibility study on regional parks concepts
- Details of how the strategy will be delivered and implemented
- Details of how the public will be consulted
- Timetable for delivery

PUSH will need to win the hearts and minds of decision-makers, funding agencies and the community in order to convince all players within the sub-region that Green Infrastructure is important: policy support alone is not enough to deliver Green Infrastructure objectives and meet the needs of the area in the future

Partnership working and willingness to understand the remit of other agencies is essential, and "business as usual" is not an option for PUSH if they want to meet their own objectives, as well as national and regional policy standards

## Organising for Delivery

The following chapter sets out our recommendations to PUSH on how these key challenges can be addressed, considering:

- Corporate and community governance
- Co-provision: greening public infrastructure
- The planning process
- Funding
- Capacity Building

The focus throughout is on the co-ordinated, multi-agency approach that will be required to implement change and drive the green infrastructure agenda forward in South Hampshire. Although it is up to PUSH to decide on how this will be managed, the successful implementation of green infrastructure is likely to need more than the convention Steering Group / partnership approach, demanding a distinct delivery body such as an independent green infrastructure trust or simply a dedicated staff team within the existing structures.

There are several roles that will need to be fulfilled in order to facilitate delivery, ensure high standards of design and financial management, build additional delivery capacity and generate funds.

Many green infrastructure initiatives (including Thames Gateway Partnership, the River Nene Regional Park and the Community and Urban Forests) have identified a coordinating body or '**Champion**' to:

- maintain, develop and communicate the vision;
- advocate the public benefits of green infrastructure;
- embed green infrastructure into local, sub regional and regional plans;
- generate greater political influence;
- influence funding streams
- establish and monitor steering and working groups charged with delivery of particular programmes and projects

PUSH is in the optimum political position to drive green infrastructure across the sub region, and a dedicated group similar to PUSH's Sustainability Group (consisting of representatives of the 11 South Hampshire local authorities, Environment Agency, the Environment Centre and the Solent Architecture Centre) could fulfil the championing role, enabling a consistent policy approach for green infrastructure in the same way as it has done for environmental sustainability.

However, given the magnitude and importance of the task, a dedicated **Green Infrastructure Team** with the single focus on green infrastructure delivery across the sub region should be responsible for implementing strategy, managing and developing the overall programme, generating funds, monitoring progress, marketing, influencing and communication – particularly co-ordination with other agencies to ensure co-provision of green infrastructure and building capacity for corporate, voluntary and individual action for the environment. It would commission projects and programmes and facilitate their implementation through co-ordination of activity and identifying opportunities in new areas, and inform (and be informed by) the Champion role.

**Working Groups** would come together in support of the dedicated Green Infrastructure Team to devise and implement particular projects or programmes, with a focus on project delivery. Their work may be organised on a thematic or a geographic basis to ensure representation from relevant stakeholders, and potentially provide a dedicated project management route.

With **additional resources**, existing 'working groups' may be in the best position to steer particular programmes and projects e.g. the Solent Forum for the Waterfront Regional Park and the Hampshire Countryside Recreation Forum for the Green Access Network.

**Ambassadors** are influential individuals or project representatives who are able to promote the 'virtues' of green infrastructure and encourage greater partnership working through cross sector and cross boundary communication and co-operation. Ambassadors would have a promotional / advocacy role and should represent a wide range of backgrounds and sectors.

## Corporate and Community Governance

PUSH will need to positively influence the following plans and partnerships to ensure that Green Infrastructure is embedded into plans and policy documents and co-provision opportunities are fully explored:

- Local authority corporate action plans
- Sustainable community strategies
- Local and Multi- area agreements
- Local public service agreements
- Neighbourhood partnerships
- Environmental partnerships
- Allied thematic partnerships (e.g. health, children's services, safety)

The PUSH Strategy will also need to show how green infrastructure objectives specifically interlink with LAA themes of:

- Children & Young People
- Safer & Stronger Communities
- Healthier Communities and Older People
- Economic Development

Community and corporate strategies for Local Authorities and Local Strategic Partnerships set out aims for quality of life in the area, and the objectives for meeting socio-economic needs and managing the environment.

Much of the government funding that Local Authorities receive for implementation depends on setting and meeting performance targets in Local Area Agreements (LAA) and in Local Public Service Agreements (LPSA). As the majority of LAA and LPSA–related funding is dedicated to health, education, social and business support services, it is vital to demonstrate that green infrastructure investment delivers wide-ranging public benefit (in particular supporting healthy lifestyles, economic performance and community cohesion) to help to advocate for "co-provision" of green infrastructure within funding programmes.

A critical part of this will be engaging with the Local Strategic Partnerships in South Hampshire so that the strategy is considered as a vehicle for Community Plans and LAA actions, and maintaining close working relationships with them to provide information and evidence to bid for funding to implement green infrastructure.
The graphic "Translating Strategy to Implementation at the Local Governance and Partnership level" illustrates the documents and partnerships which PUSH should seek to influence, summarising how each might be influenced, and what outcomes might be anticipated.

## Co-provision: Greening Public Infrastructure

PUSH should seek to promote green infrastructure delivery as a co-product of any investment in new or refurbished public infrastructure, and of the day to day work of public agencies.

A co-provision strategy or mapping exercise would help to identify opportunities for partnership working to champion Green Infrastructure co-provision, and intervention opportunities for when built infrastructure is planned, designed and implemented

During the next decades, considerable investment will go into transport, health, education, industry, water supply, waste management and other assets in the "public estate". Co-provision of green infrastructure alongside both built infrastructure and environmental management systems can be an economic means of maintaining a green infrastructure asset, and benefit the public infrastructure itself through improved design and durability.

The role of green infrastructure in supporting and enabling public agencies to work effectively and meet their environmental and climate-change obligations needs to be advocated by PUSH in order that meaningful partnerships can be established and such interventions considered when built infrastructure is planned, designed and implemented (see appendix 3 for examples).

It may be useful for PUSH to "map" the numerous agencies and authorities involved in infrastructure provision and environmental management, to assess their statutory remit regarding green infrastructure functions and their expressed commitment to co-provision, and seeking alignment of business plans and programmes with the Green Infrastructure Strategy, particularly in the following sectors: health, sport provision, forestry, water supply, coastal and flood defence, tourism, marine leisure, Parks & Gardens services, restored mineral workings and landfill sites.

"Maintaining a pleasant and healthy environment is important, not only because it makes us feel good about ourselves but it also sends a strong signal that we, as a society, value our surroundings. Stern has made it abundantly clear that there is an economic rationale in doing something about climate change; it will cost us more if we do nothing. The same can be said about caring for the countryside and the fabric of our cities.

Sustainable and appropriate design is becoming increasingly important as we try to make better use of our finite resources. As we move forward we can expect to see more iconic buildings such as the Spinnaker Tower in Portsmouth. Many of our key industries such as marine and tourism depend on the quality of our environment. The same is true of the countryside. For thousands of years rural areas have evolved and adapted as traditional industries such as farming have changed. The key to success is getting the balance right between, sensible economic expansion and maintaining a healthy vibrant countryside."

From "Informing our Future" – Hampshire Economic Partnership 2007

## Translating Strategy to Implementation at the Local Governance and Partnership level

| Green Infrastructure Strategy | | | | | | Green Infrastructure Implementation |
|---|---|---|---|---|---|---|
| » | Shows how green infrastructure supports local social, economic and environmental objectives | » | Sustainable Community Strategy | » | o Incorporates GI into cross-cutting strategies<br>o Sets GI priorities for Local Partnerships<br>o Sets framework for LAA / LPSA targets to uplift GI | » |
| » | Shows how GI can contribute to MAA / LAA Key Objectives<br>Shows how service delivery can be improved through partnership-working | » | Multi- & Local Area Agreements | » | o Secures funding for improved service delivery (including GI projects) | » |
| » | Defines local needs and identifies opportunities to improve quality of life through investment in GI | » | Local Public Service Agreement (LAA Stretch) | » | o Secures funding for GI projects | » |
| » | Defines investment priorities for sustainable growth | » | Local Authority Corporate Plan | » | o Sets GI investment priorities<br>o Commits to GI on corporate estate & in corporate activity<br>o Advocates co-provision of GI with other infrastructure | » |
| » | Shows how GI will contribute to neighbourhood objectives<br>Defines green networks for the neighbourhood | » | Neighbourhood Partnership | » | o Encourages co-provision of GI with neighbourhood improvement and regeneration projects<br>o Builds community capacity to fund and undertake GI projects | » |
| » | Defines GI deficiencies for area<br>Defines GI investment priorities<br>Provides evidence for environmental funding bids | » | Environmental Partnership | » | o Secures funding and implements GI projects<br>o Advocates for consideration of GI during planning and infrastructure decision<br>o Identifies opportunities for work with allied Partnerships | » |
| » | Shows how GI can contribute to "non-environmental" objectives of a socio-economic nature | » | Allied Thematic Partnership e.g. children, older people, safety, health, business | » | o Encourages co-provision of GI with other programmes | » |

## The Planning Process

PUSH needs to demonstrate strong leadership, enforceable environmental commitments and innovative approaches to forward planning to ensure non-net loss and enhancement of green infrastructure across the sub-region.

Local development frameworks need to have positive promotional policy for green infrastructure in their Core Strategies, and detailed LDF policies should ensure that each development:

a. Creates new green infrastructure assets within its own footprint,
b. Safeguards any assets that might be impacted by development
c. Contributes to the overall functioning of the green infrastructure network

Supplementary planning documents should be used to provide guidance for developers and development control staff, and should include the requirement for developers to prepare an Environmental Infrastructure Statement to be submitted.

PUSH should provide guidance for developers on how to achieve favourable Green Infrastructure outcomes through the EIA process, and investigate the use of Section 106 obligations as a means of supporting green infrastructure projects and/or use of planning tariffs

The planning system aims to maximise design quality and environmental sustainability of development, while still enabling the developer to achieve his objectives – and so has a significant role to play in implementation of green infrastructure. Robust planning policy will enable refusal of development which does not deliver high standards of green infrastructure on plot and improve green infrastructure off-plot. However, the growth imperative inevitably means there will be local losses of greenspace, mature vegetation, unsealed surfaces and distinctive landscape features which may be impossible to offset on-plot.

The PUSH Sustainability Group has enabled a consistent policy approach for environmental sustainability, which could be extended to green infrastructure:

- the current policy incorporated into the Draft Sub Regional Strategy (SH14)[21] to enable the local authorities in South Hampshire to take a consistent approach to development proposals should be expanded to specifically cover green infrastructure related principles and issues;
- work on developing detailed material to shape the policies included within Local Development Frameworks needs to explicitly address green infrastructure as a specific policy consideration within the LDF process;
- the preparation of a Supplementary Planning Document that stands alongside LDF policies and provides more detailed guidance on environmental standards should specifically reference green infrastructure.

Local Development Frameworks (LDFs) need to have positive promotional policy for green infrastructure in Core Strategy, which should illustrate broad spatial priorities, identify areas of deficiency and incorporate the Green Infrastructure Strategy's key principles and objectives.

PUSH should ensure that the Green Infrastructure Strategy includes an evidential baseline that can be incorporated into LDFs, so that detailed LDF policies can ensure that green infrastructure assets are assessed during any development and that each development:

- creates new green infrastructure assets within its own footprint;
- safeguards any assets that might be impacted by development;
- contributes to overall functioning of the green infrastructure network.

It is also important that PUSH establish cross-boundary mechanisms that can be incorporated into LDFs for identifying and offsetting direct and indirect (collective and diffuse) effects of development, to ensure that it does not negatively impact on the ability of the green infrastructure network to deliver the many functions required to sustain quality of life in South Hampshire.

Supplementary Planning Documents (SPDs) provide the Development Plan Documents (DPDs) with the detail needed to guide and control delivery, and

[21] www.southeast-ra.gov.uk/southeastplan/plan/march_2006/core_document/015_seera_sep_e01.pdf

can provide developers with a menu of options for safeguarding and increasing green infrastructure in and around the development footprint.

It is recommended that PUSH provides guidance for Local Authorities in the development of sustainable development SPDs to include the requirement for developers to prepare an Environmental Infrastructure Statement to be submitted within or alongside developments requiring a Design and Access Statement (see inset: SPD case studies). This EIS would demonstrate how the developer will attain high standards of environmental design, and should specifically including a Green Infrastructure assessment as outlined in the 4-step process highlighted in the box below.

**Supplementary Planning Documents Case Studies**

Manchester City Council have adopted Supplementary Planning Document (SPD) entitled "Guide to Development". This requires most developers to produce an Environmental Standards Statement (ESS) in addition to the statutory Design and Access statement. The ESS includes expectations relating to biodiversity and green space. This could logically be extended to encompass other aspects of green infrastructure such as favourable social and health outcomes.

The Mayor of London has drafted (in August 2007) SPD relating to the East London Green Grid. This suggests topics in which Local Authorities should develop ambitious policy for safeguarding and (re)building green infrastructure functions.

LDFs can promote the use of **planning conditions and obligations** to ensure the network is enhanced. The use of Section 106 obligations and the possible emergence of a planning tariff to provide community infrastructure, either on a statutory national basis or on an adopted city-regional basis, will also generate funds. PUSH will need to work with Local Authorities to identify a fair and consistent method of collecting and distributing such funds for the delivery and management of green infrastructure assets that cross administrative boundaries or are of sub-regional (or broader) significance.

Green infrastructure will also be one of many competing interests for funding, so it is important that PUSH are able to align and promote green infrastructure during negotiations on tariff-setting, so that a realistic level of support for green infrastructure is advocated.

**Environmental Impact Assessment** (EIA) considers development impacts on a set of receptors required by statute (human beings, flora and fauna, air, water, soil, landscape, material assets and the cultural heritage) and interactions between these, seeking to optimise design and minimise negative effects, while allowing the developer to achieve his goal.

However, given the growth imperative, the frustration that developers experience in achieving planning permissions for EIA development and the Government's desire to streamline the planning system, there may be little enthusiasm for expanding the remit and detail of EIA. To overcome such resistance, PUSH should develop guidance on how to achieve favourable green infrastructure outcomes through EIA. The 4-step green infrastructure assessment process shown in the box below illustrates how planners and developers might assess the impact of a development on existing green infrastructure assets and could be a useful starting point for such guidance.

The PUSH **Habitats Regulation Assessment** (HRA) provides a framework and evidence base that can be used by individual authorities as the basis for carrying out Habitat Regulation Assessment of Development Plan Documents and Supplementary Planning Documents. The statutory process only applies to the Natura network, but PUSH should further investigate whether there is a case for adopting policy which applies the same principles to all biodiversity-priority habitats under the green infrastructure strategy banner (in line with guidance in PPS9). Further, research into how similar frameworks for non-Natura biodiversity priority and non-biodiversity priority assets can be implemented in LDFs should be carried out – including options for extending the remit of the HRA framework.

## Green Infrastructure Assessment in relation to development proposals

### Step 1 Audit

- identify green infrastructure assets (on and off site) which may be affected. This includes vegetation, biodiversity, access, soil porosity, distinctive landscape and heritage features; and human relationships with the site.

### Step 2 Plan

- have regard to Landscape Character Assessment, Biodiversity Action Plan, Green Infrastructure Network Plan and Open Space Strategy (if available);
- consider design and sustainability codes that apply to the development type and location;
- consult local planners, environmental bodies and community to understand neighbourhood priorities;
- assess how the development might impact on areas of opportunity and/or deficiency in green infrastructure.

### Step 3 Site Design

- safeguard green infrastructure assets on site;
- if asset loss is inevitable: recreate green infrastructure to ensure "no net loss" of the functions provided by the lost assets;
- create new assets on site in line with local and strategic priorities.

### Step 4 Reinforce strategic green infrastructure functions

- address deficiencies (both pre-existing in the neighbourhood and those caused by the new development);
- ensure linkages to the green access network;
- contribute to the strategic green infrastructure network;
- ensure long term management and governance arrangements are in place for green infrastructure on site and (where relevant) off site.

Developments indirectly affecting Natura sites through population pressures and disturbance can sometimes offset or displace negative impacts by increasing the environmental capacity of an undesignated area so it is able to absorb development pressures. This is achieved by provision of **Suitable Accessible Natural Green Spaces** (SANGS).

Based on the Thames Basin Heaths SAC precedent, SANGS can be delivered by providing or increasing accessibility and/or managing habitats in an area previously inaccessible or not managed for nature, or by improving the recreational functionality of existing public open spaces.

SANGS arrangements are, predictably, subject to robust cross-examination, but there is a case for SANGS in relation to specific projects where one can trace a measurable impact along an identifiable pathway from the development to a receptor. However each case will differ and will have to be assessed on its own merits, and it would help planners if PUSH could develop guidelines to identify when, where and how a SANGS approach would apply in South Hampshire.

PUSH will need to enable and encourage strong leadership, enforceable environmental commitments and innovative approaches to forward planning to ensure built infrastructure maintains green infrastructure functions across the sub region, enabling planners and developers to ensure both no-net-loss and enhancement of green infrastructure assets at neighbourhood and South Hampshire-wide scales.

## Funding

There is a range of options for gaining funding for green infrastructure interventions: through increasing private sector contributions, via development gain and by aligning the business plans of public sector agencies closely with the green infrastructure strategy. These measures may support individual sites or projects or contribute towards approaches and practices that contribute to green infrastructure on a wider scale.

- Section 106 agreements / Planning Tariffs: Cross-boundary political cooperation for distribution of s106 contributions has traditionally been difficult, yet the proposed Community Infrastructure Tariffs offer opportunities for developing a common approach across all PUSH authorities. PUSH should investigate and work with Authorities to open up opportunities for the inclusion of green infrastructure measures in tariff agreements and for shared delivery through a pooled funding source, particularly for sub regional scale green infrastructure provision.

- Land Management Support: PUSH should work with Natural England, Forestry Commission and other funding bodies to align land management support towards wider green infrastructure outcomes, allowing structural funds to be targeted at landholdings / operations which actively build the GI network. This is particularly relevant in rural areas: the evidence base shows the economic benefits of a green infrastructure approach to managing rural lands (both public and private) and the associated public benefits they can deliver.

- New Growth Point Funding: The success of the National Forest, many of the designated Community Forests and several Regional Park Boards in delivering green infrastructure over sustained periods is an example of how a compact between central and local government can achieve cost effective landscape transformation. PUSH should seek to establish a similar approach to maximise the potential for funding via Growth Point Proposals, particularly for major capital projects, long term revenue support and cross boundary initiatives.

Case Study: The National Forest Tender Scheme

The National Forest Tender Scheme offers landowners and farmers significant opportunities to assist reinvestment and / or restructuring as part of whole farm planning. The Tender Scheme releases the capital value of land, providing an alternative to land sale, with an aim of creating multi-purpose woodland:

- providing for a return from forestry through high value broadleaves, special 'niche' species (hazel, willow, walnut, cherry etc), poplars or conifers;
- creating or adding value (through woodland creation) from sporting, private or commercial use and screening to enhance the amenity of a residential property.

In addition to covering the costs of woodland creation, the Tender Scheme can release capital for reinvestment or business restructuring to provide improved income and capital value.

- Diversification of Rural Enterprise Funds: PUSH should seek out collaborations with landowners to assist them collectively to access funds and best practice guidance about land management to contribute to biodiversity within the broader green infrastructure network. PUSH should also investigate whether Rural Development Programme for England (RDPE) funds can be pooled into a tender scheme (see inset: National Forest case study) where landowners compete to develop proposals that deliver significant green infrastructure benefits.

## Capacity Building

PUSH needs to recognise that Green Infrastructure cannot just be delivered by local authorities but by a huge range of public and private organisations, private landowners, and the wider public.

Setting up a green infrastructure network in south Hampshire is recommended as a means of helping to promote green infrastructure as a concept and a reality, whilst a South Hampshire wide green infrastructure information resource needs to be created, including interactive versions of green infrastructure maps.

Public sector property portfolios particularly need to be examined to see whether holdings can contribute towards green infrastructure objectives.

It is essential that the wider public is consulted with and involved in future decision-making processes. Environmental trusts and Parish Councils should also be encouraged to purchase/lease land in priority Green Infrastructure locations and manage it appropriately.

It is essential that PUSH is able to engage public, private and voluntary sector organisations and individuals with the principles of green infrastructure, and promote understanding of the many benefits green infrastructure can bring at the sub regional and local scale.

**Green Infrastructure Networks** provide a forum for sharing ideas and best practice, bringing together public sector agencies, planning authorities, developers and practitioners.
PUSH should investigate options for a green infrastructure network in South Hampshire, to help promote green infrastructure as a concept and a reality: from political influencing (e.g. through informing a common approach to the LDF development process) to facilitating co-ordinated delivery of strategic green infrastructure initiatives across partners and potentially funding streams.

PUSH should also work with public bodies to assess whether **Public Sector property portfolios** are in the optimum position in relation to the proposed green infrastructure network, and identify opportunities for disposal or swapping of the holding in order to purchase land in priority areas.

There is also a role in facilitating (through, for example , funding provision or legal advice) **environmental trusts and Parish Councils** in owning or leasing land as green infrastructure .

CABE's guidelines for delivering successful housing growth[22] set out a series of steps for working effectively with communities. These could be applied by the PUSH partners, working with those organisations with particular expertise in facilitating **community involvement** (such as BTCV, Groundwork, etc) to ensure the key principles in this strategy are considered as a critical part of the planning consultation process.

A South Hampshire wide **environmental information** portal could be of great use in stimulating community action and helping practitioners innovate, as well as sharing best practice information. PUSH should investigate the practicalities and opportunities such an approach would bring.

[22] Actions for Housing Growth: Creating a Legacy of Great Places (2007)

# Towards A Green Infrastructure Strategy for South Hampshire

## APPENDICES

# APPENDIX 1

# Green Infrastructure Assets

**Indicative Green Infrastructure Assets (as described in figure 2.1)**

| Ref No. | Name and Location | Characteristics |
|---|---|---|
| 1 | Langstone Harbour, including Farlington Marshes, Solent Way and Hayling Island grazing areas. | Internationally important saltmarsh, mud flats and grazing marsh, for birds. Vital recreational resource with an option of a harbour-side circular trail. Very distinctive historic and visual character. |
| 2 | Emsworth to Warblington Coastal Strip | Coastal plain with high visual and historic interest. Includes castle remains & glimpsed views through to Langstone Harbour from A27. Grazing marsh has eco value supporting the Harbour bird communities |
| 3 | Hayling Bay Coastal Strip | Stony and sandy beaches of high recreational value particularly for Portsmouth to which it is linked by a ferry. Important for leisure and tourism business. |
| 4 | Portsmouth Seafront (Southsea Common to Fort Cumberland) | Shingle beaches, promenades, grassed commons, with attractive maritime views and important to the setting of Southsea and Eastney. Huge historical value and massively valued by city dwellers. Important for many leisure and tourism businesses but also essential to regeneration of the city. |
| 5 | Portchester Peninsular, Portsmouth Harbour and Cams Hall | Internationally important mudflats vital for birds. Much more urbanised setting than Langstone Harbour but with greater distinctiveness derived from maritime activity and historic waterfront development. No circular access route is available but short stretches are accessible. Portchester Castle is a historic feature and the remaining grassy areas are useful as a subsidiary habitat for birds in the harbour. |
| 6 | Portsdown Hill | Chalk scarp and dip-slope downland with outstanding views across Portsmouth, Gosport and the channel. Also unique prospect over The Forest of Bere. Characterised by a line of forts and communication installations of historic value. Some important chalk grassland on steep slopes. |
| 7 | Gosport Forts (Forts Elson, Brockhurst, Rowner & Grange) | 19th Century fortifications which form the western boundary of the historic defensive centre of Gosport. All are scheduled ancient monuments and important for urban character. |
| 8 | Gosport Waterfront/ Gilkicker Point/Solent Way | Historic urban waterfront with some areas of shingle beach, outstanding views of Portsmouth and the Isle of Wight. |

| Ref No. | Name and Location | Characteristics |
|---|---|---|
| 9 | Stokes Bay/ Lee-on-the-Solent, Solent Way/ Hill Head/ Seafield Park | Sandy beaches with amenity parkland and seaside development. Outstanding views to the Isle of Wight and important for local leisure and tourism businesses. |
| 10 | Alver Valley Park, Gosport | Narrow river with extensive areas of scrubland formerly used in part for land-filling, now being restored as a country park with footpath linkages from Rowner and Northern Gosport down to the sea front. |
| 11 | Titchfield National Nature Reserve and River Meon Mouth | Complex of reedbeds, wetlands and tidally influenced mudflats with a small harbour. Unique visual character also includes sandy shore habitats. |
| 12 | Lower Meon Valley and Wickham | From Titchfield upstream to Wickham, the River Meon is a narrow valley floor with a parallel cycleway. It is not obvious in the wider landscape but is important due to the historic nature of Titchfield and Wickham and its linkage from the seafront through to the Forest of Bere. An important recreational resource for Fareham and Gosport. |
| 13 | Chilling Coastal Farmland, Brownwich and Titchfield Common/Solent Way | Open level farmland with a network of footpaths which the public is encouraged to use. Owned by Hampshire County Council Countryside Service but presently tenanted so open access is not available, other than in certain woodland areas and on Titchfield common. |
| 14 | Hollyhill Woodland Park, Locks Heath | Area of mature woodland and large wooded gardens and open spaces which provides a locally significant recreational resource and provides a buffer between built development and the River Hamble. |
| 15 | Lower River Hamble | Extremely attractive tidal river with high nature conservation and visual interest. Scene of intense boating activity. Highly distinctive landscape of high commercial value for leisure and tourism. Crossed by means of ferry from Hamble to Warsash (the Solent Way) and also along its length following the Hamble Trail. Partly navigable and of high archaeological interest. |
| 16 | Swanwick Air Traffic Control Nature Reserve. | Woodlands, meadow and pools created in the extensive estate of the Swanwick ATC. Although not publicly accessible it is considered to be an asset because of its value as a demonstration of what can be achieved by a responsible corporate landowner in partnership with a GI delivery body (in this case the Hampshire Wildlife Trust). |

| Ref No. | Name and Location | Characteristics |
|---|---|---|
| 17 | Botley Woods and Whiteley Pastures | Large area of woodlands owned by Forestry Commission together with some meadows and farmlands owned by Hampshire County Council. Parts are managed as a Country Park. |
| 18 | West Walk | Very large openly accessible Forestry Commission woodland forming one of the largest vestiges of the Forest of Bere. Contains some relics of wood pasture, heathland and lowland grassland. Includes provision for cyclists and equestrians, play, BBQ & toilet facilities, "Walking to Health" programmes |
| 19 | Southwick Village | Highly distinctive estate vernacular village with small green. It is of significance because it is perceived as a gateway to the Forest of Bere from Portsmouth and the south east by car. Also on the Kings Way Trail. |
| 20 | Creech Woods, Denmead | Large block of accessible woodland owned by the Forestry Commission in the Forest of Bere. |
| 21 | Havant Thicket and Staunton Country Park, Rowlands Castle | Wooded landscape owned by Forestry Commission, Hampshire County Council and Portsmouth Water. Already used and managed for public access with some private grazing. The site of the proposed winter storage reservoir for Portsmouth which is hoped to be on line within 10 years. Important recreational resource for Leigh Park and Waterlooville. "Walking to Health" programmes in partnership with HCC, Primary Care Trust and Portsmouth City Council. |
| 22 | Queen Elizabeth Country Park and Butser Hill SAC | Very large country park centred around accessible woodlands owned by Forestry Commission but also including chalk downland and farmland with outstanding viewpoints operated by Hampshire County Council Countryside Services. Proximity to the A3 means that it is the largest woodland park available to the Portsmouth urban area but also to settlements outside the PUSH area such as Petersfield. |
| 23 | Emsworth Channel and Chichester Harbour | Internationally important mudflats linked to Langstone Harbour. Although within Sussex this area is partly passed by the Solent Way and is bounded by Hayling Island on its western border. |
| 24 | Manor Farm Country Park | Hampshire County Countryside Service operated site. |
| 25 | Queens Inclosure | Urban locked greenspace. Walking to Health programmes in partnership with HCC, Primary Care Trust and Havant District Council |

| Ref No. | Name and Location | Characteristics |
|---|---|---|
| 26 | Coastline from Hamble to Woolston including Netley | Attractive shoreline overlooking Southampton Water. Generally reasonably built up with many historic and distinctive settlements such as Hamble, Netley Castle and the mature woodlands of the Royal Victoria Country Park. Includes the Solent Way. |
| 27 | Itchen Valley Country Park | Floodplain and extensive water meadows of the lower Itchen with great ecological importance, woodlands and open meadows accessible to the public with recreational trails, bridleways, built visitor and educational facilities. Managed as a country park by Eastleigh Borough Council. |
| 28 | Southampton Eastern Greenways and Open Spaces | Several small pocket parks and some narrow wooded river valleys pass through eastern Southampton. Individually these are not of strategic importance but are collectively so because of the relative deficiency of open space in this part of the city. |
| 29 | Southampton Central Parks System | Group of interlinked urban parks with well maintained attractive lawns, avenues and broad pathways. Subject to Heritage Lottery funded restoration these are vital to the setting of the centre of Southampton. |
| 30 | Southampton Common | Woodland, wood pasture and meadow of substantial size. SSSI of significant amenity value and educational importance. |
| 31 | Tanner Brook, Hollybrook and Southampton Western Greenways | Urban green corridors, and networked greenspaces, allotments, cemeteries etc. A collective asset due to the density of surrounding housing and social inclusion needs. Partnership project currently led by the Environment Agency. |
| 32 | Lords Wood, Rownhams, Chilworth Common, Home Copse and Hut Wood and Nursling (all northwest Southampton) | Set of Forestry Commission owned woodlands and associated open spaces (latter in various ownerships) with a characteristic New Forest landscape feel. All are accessible woodlands and are important in the setting of north west Southampton and Southampton University and associated business campuses. An important link between the urban core and wooded farmland north west of the M27. |
| 33 | Emer Bog SAC, Baddesley | Wetland SAC managed by Hampshire Wildlife Trust. Not generally accessible to the public. |
| 34 | Ampfield Woods | Managed by Forestry Commission, outside PUSH boundary but close to Romsey and Eastleigh and adjoining a larger private woodland estate of distinctive character. |
| 35 | Broadlands Estate, Romsey | Historic home of the Mountbatten family and an established tourist destination. Entrance fee at times. |

| Ref No. | Name and Location | Characteristics |
|---|---|---|
| 36 | Testwood Lakes / Test Way | Visible from M27. Hampshire Wildlife Trust Educational Reserve adjacent floodlit gravel pits and adjoining floodplain grassland and scrub. Nearby are privately owned and managed Broadlands Lakes used by angling clubs. |
| 37 | Lower Test Valley / Test Way | Estuarine and tidal reedbeds of high ornithological interest. Managed by Hampshire Wildlife Trust, visible from A35. |
| 38 | Dibden Bay and Hythe Marshes | Salt marshes and mudflats fronting Southampton Water. Generally inaccessible to the public due to being severed by railway line. In private ownership and possibly vulnerable to coastal squeeze. |
| 39 | Valley Park Woodlands Nature Reserve, Chandlers Ford. | Open space and woodland on the edge of town together with wetlands and grasslands. |
| 40 | Lakeside Country Park, Eastleigh. | Small country park associated with the Solent playing fields near the Southampton Airport. Water filled gravel pits used for water sports with open land and visitor facilities. |
| 41 | Eastleigh Water Meadows | Sensitive floodplain grassland of historic interest. |
| 42 | Stoke Park Woodlands, Bishopstoke | Managed by Forestry Commission. Partnership with local authority on play, urban woodland, BMX trail facilities |

# APPENDIX 2

## Steering Group & Stakeholders

## Steering Group

| Name | Organisation |
|---|---|
| Mark Biles | Test Valley Borough Council |
| Graeme Bryant | Natural England |
| David Carman | Hampshire County Council (Landscape Planning) |
| Bill Clarke | Southampton City Council |
| Bruce Collinson | Communities & Local Government |
| Tina Cuss | Fareham Borough Council |
| Vicky Fletcher | Hampshire County Council (Landscape Planning) |
| Rob Gazzard | Forestry Commission |
| Jo Hale | Hampshire County Council |
| Judy Halpin | Hampshire County Council (Ecology) |
| David Hayward | Portsmouth City Council |
| Steven Lees | Test Valley District Council |
| Tim Sykes | Environment Agency |
| Tony Wright | Eastleigh District Council |

## Stakeholders

| Name | Organisation |
|---|---|
| Mike Allgrove | Portsmouth City Council |
| Sarah Applegate | New Forest National Park Authority |
| Ian Barker | New Forest National Park |
| Rachael Bayliss | Hampshire County Council (Coastal Planning) |
| Nat Belderson | South Downs |
| David Bibby | Test Valley Council |
| Mark Biles | Test Valley Borough Council |
| Vicky Blamire | Chichester Harbour AONB |
| Julie Boschi | Havant Borough Council |
| Sophie Brookes | Environment Agency |
| Ken Brown | BTCV |
| Graham Bryant | Natural England |
| Peter Burrard-Lucas | Portsmouth City Council |
| Frank Campbell | Havant Borough Council |
| David Carman | Hampshire County Council (Landscape Planning) |
| Clive Chatters | Hampshire Wildlife Trust |
| Bruce Collinson | Forestry Commission |
| Tina Cuss | Fareham Borough Council |
| Valerie Dobson | East Hampshire District Council |
| Amanda Dunn | Environment Agency |
| Robin Edwards | Hampshire County Council (County Farms) |
| David Evans | River Hamble Harbour Authority |
| Rhys Evans | FWAG |

| Name | Organisation |
|---|---|
| Vicky Fletcher | Hampshire County Council (Landscape Planning) |
| Rob Gazzard | Forestry Commission |
| Edward Gerry | New Forest District Council |
| Rachel Green | Natural England |
| Judy Halpin | Hampshire County Council (Ecology) |
| David Hayward | Portsmouth City Council |
| Jenna Hegarty | Natural England |
| Tracey Hewett | Solent Forum |
| Mark Holland | Chris Blandford Associates |
| Pauline Holmes | Hampshire Wildlife Trust |
| Tim Houghton | Groundwork Solent |
| Lucy Howard | Gosport Borough Council |
| David Ilsey | New Forest District Council |
| Roger Jenness | Havant Borough Council |
| Phil Lomax | Eastleigh Borough Council |
| Richard Longman | PUSH |
| Jonathon Maskell | Environment Agency |
| Philip Marshall | National Trust |
| Lindsay McCulloch | Southampton City Council |
| Gary Momber | Hampshire and Wight Trust for Maritime Archaeology |
| Bruce Neilson | Havant Borough Council |
| Julia Norman | New Forest District Council |
| Damien Offer | Hampshire County Council (Ecology) |
| Antony Payne | Hampshire County Council (Spatial Strategy) |

| Name | Organisation |
|---|---|
| Ian Phillips | Hart District Council |
| Vicky Piper | Portsmouth City Council |
| Stuart Roberts | Hampshire County Council |
| Edward Rowsell | Chichester Harbour AONB |
| Lucy Sheffield | Environment Agency |
| David Simmonds | CPRE Hampshire |
| Martin Small | South Downs AONB |
| Caroline Smith | Gosport Borough Council |
| Charlotte Stride | Environment Agency |
| Christianne Strubbe | Hampshire County Council |
| Tim Sykes | Environment Agency |
| Linda Tartaglia-Kershaw | Hampshire County Council (Landscape Planning) |
| Christina Watkins | The Environment Centre |
| Charlotte Webb | Hampshire County Council |
| Greg White | Winchester District Council |
| Steve Williams | English Heritage |
| Neil Williamson | New Forest District Council |
| Mark Wilson | Hampshire County Council |
| Tony Wright | Eastleigh District Council |
| Nick Yeats | Southampton City Council |

Comments on the Research Report also received from:
Committee for Rural Hampshire

# APPENDIX 3

# Opportunities for co-provision of green infrastructure

*Strategic and Major Development - adoption of eco-towns principles*

- new access and connections to existing strategic network;
- green streets/shared surface streets/home zone approaches to layout and permeability;
- habitat restoration and new green/blueways;
- public realm hierarchy from plazas to commons;
- opportunities for growing local food and renewable energy crops;
- landmarks and gateways to the wider landscape;
- porous surfaces and green roofs.

*Infill and Brownfield Recycling*

- increase in porosity and vegetation cover;
- home zones/shared surface streets/green streets;
- linkages to the strategic access network;
- provision of new green space in areas of deficiency;
- high quality public realm.

*Social Housing*

- community management of urban spaces;
- sports areas;
- wildlife gardening;
- local food growing;
- renewable energy networks opportunities from shared tenure;
- home zones/shared surface streets/green streets;
- safe and well-lit links to urban green/blueways.

*Town Centre Refurbishment*

- public realm and landmarks;
- increased porosity of urban surfaces;
- urban tree canopy.

*The Health Estate*

- green roof gardens and courtyards;
- internal landscapes;
- healthy walks and links to neighbouring green space;
- local food growing.

*Corporate Landscapes and Campuses*

- distinctive gateways;
- use of parklands by local communities in areas of deficiency;
- habitat creation;
- cycleable links to the green access network;
- local food production.

*Schools*

- use of play and sports facilities by communities in areas of deficiency;
- local food growing;
- cycleable links to the green access network;
- green roofs, courtyards and internal landscapes.

*Highways*

- severed land/verges/green estate managed for biodiversity;
- improvement to green access network by removal of barriers at times of highway refurbishment;
- new gateways and landmarks;
- new green bridges;
- sustainable drainage systems for habitat creation;
- signage to promote distinctive landscapes.

*Power Industry*

- Off-site planting and habitat creation for landscape integration;
- carbon off-setting as means of uplifting woodland cover elsewhere.

*Waste Management*

- Generation of compost to improve soil quality in flood-prone catchments;
- carbon offsetting to encourage woodland planting and habitat creation.

*Water supply*

- New reservoir to function as habitat and recreational resource;
- review of abstractions in river valleys through farm management plans;
- review of pesticide applications in sensitive soil areas.

*Flood Defence*

- Design naturalistic landform basins to improve flood storage capacity in river systems and flood plains;
- long term shoreline planning to ensure continuous coastal access;
- realignment of shoreline to maximise biodiversity opportunities in the face of climate change;
- setting aside coastal refuges and strategic habitat creation to offset declines in quantity and quality of existing Natura Sites.

*Changing Footprints of Major Industry/Docks/Navy*

- Increased porosity of urban surfaces;
- new coastal access;
- habitat creation within secured estate;
- landmarks;
- provision of new green space in areas of deficiency.

*Airport*

- habitat creation, e.g. heathland on operational green space;
- distinctive gateway to sub-region;
- carbon offsetting to improve woodland cover elsewhere in the region.

# APPENDIX 4

# Glossary

| | |
|---|---|
| **Blueway Park** | A river managed for multiple purposes, including navigation, waterborne sports, riverside access, biodiversity, heritage management. |
| **Coastal Refuge** | Areas of coastal marsh, farmland and other habitats which are relatively undisturbed by development, intensive agriculture or intrusive recreation. They are "wildspaces", with a particular emphasis on providing refuges for sensitive coastal species. Not all are necessarily presently of international importance – some coastal refuge areas are intended to act as buffers for more important zones. |
| **Core Strategy** | Sets out the general spatial vision and objectives for delivery in the Local Development Framework (LDF) |
| **Development Plan Documents (DPD)** | Outline the key development goals of the Local Development Framework through a Core Strategy, Site-Specific Allocations of land, a Proposals Map and possibly additional optional development documents such as Area Action Plans |
| **Ecosystem Service** | A GI function which is important for a healthy self-sustaining environment e.g. habitats and corridors for biodiversity, hydrological `sponge' for flood management; water quality buffering. |
| **Green Infrastructure (GI)** | Describes the network of greenspaces, landscapes and natural elements that intersperse and connect our cities, towns and villages. More than this, it is a holistic approach to viewing the natural environment which acknowledges the *multiple benefits* and *vital functions* it provides for the economy, wildlife, local people and communities alike – including local climate and air quality amelioration, floodplain management, and coastal sea defence |
| **GI Resource** | Any open space (green, blue and even public squares) forms part of the GI resource. Private and public spaces all form part of the resource. |
| **GI Asset** | An area or corridor or network which, by virtue of location, use or management, provides one or more functions of public benefit. |
| **GI Function** | A service which the space provides which sustains quality of life. Such services may be of a social nature (e.g. health-giving, visual character, accessibility, provision of meeting places); environmental nature (e.g. biodiversity, flood management, historic or cultural distinctiveness); or economic (setting for inward investment, tourism support). The term "theme" is synonymous with "function". |
| **GI Scale** | GI assets are apparent at a range of scales relative to the size and disposition of the catchment which benefits from them.<br>• In a dense inner-urban setting GI manifests itself through street greening project, an urban plaza or a green roof garden.<br>• At a neighbourhood or suburban scale, GI might manifest itself through public parks, linked greenways, or even the collective resource of private gardens.<br>• At a town or city-wide scale, GI manifests itself through large strategically important spaces, green networks, urban rivers and canals, Local Nature Reserves, land marks and vistas.<br>• At a sub-regional scale, GI manifests itself through river valley and canal systems, major strategic parks and woodlands, areas of distinctive landscape/townscape character, ecological networks, strategic multi-user trails.<br><br>In the context of PUSH, the coast is a GI asset which is valuable at all the scales noted above. |
| **Green Destinations** | Tourism assets with a predominantly natural essence, such as Country Parks, reserves, woodlands |

**Green Infrastructure Gateway**

A site, or group of sites, which can provide multiple functions and provide a leisure/sport/health destination to a significant range of users. Gateways will collectively encapsulate the diversity of the south Hampshire landscape, and should ideally be managed in an integrated manner to maximise functions and public benefits. They are the sites people will instinctively name as great outdoor spaces.

**Green Network**

The overall green infrastructure concept for urban south Hampshire, consisting of a plan showing the broad areas where multifunctional green infrastructure provision will bring most public benefit; coupled with a more detailed schedule of initiatives and projects centred on the green infrastructure assets important for the city region.

**Heritage Hub**

An open landscape in which there is a concentration of natural, cultural or built heritage interests.

**Issues**

In this context, an issue for the GI Strategy is:

- a social, economic, demographic plan, or behavioural trend, which places extra demands on (or threatens integrity of) the GI resource and GI assets e.g. an increase in population.
- an uncontrollable externality which affects the way GI assets are planned and managed e.g. climate change, coastal access legislation.
- a social, economic or demographic plan which could have negative effects on quality of life but which could be ameliorated through provision of new or better-managed GI assets e.g. new built infrastructure.
- ongoing social, economic or environmental deprivation which could be ameliorated through provision of new or better-managed GI assets.

**Local Development Frameworks (LDF)**

A folder of local development documents that outlines how planning will be managed in each Local Authority area.

**Multi-functionality**

When a GI asset provides several functions, usually including those of a social, environmental and economic nature. Multi-functionality represents good use of land and resources in an urban area – but in some situations the importance and sensitivity of a single function may outweigh the benefits of multi-functionality when the other functions could compromise the ability of the asset to provide the single important function. An example might be a very sensitive coastal nature area.

**Partnership for Urban South Hampshire (PUSH)**

A voluntary partnership of local authorities in South Hampshire dedicated to sustainable, economic-led growth and improving prosperity and the quality of life for everyone who lives, works and spends their leisure time in South Hampshire

**Public Benefit**

A public benefit relates to quality of life. Public benefits are the desired social, environmental or economic outcomes of an investment in public funding or policy-making. In the South East Plan, the 3 central objectives are:

- social progress which recognises the needs of everyone
- effective protection of the environment and prudent use of natural resources
- maintenance of high and stable levels of economic growth

Similar objectives underpin other SE regional and sub-regional strategies.

A public benefit arises from any GI asset (or use of that asset) which contributes to the above objectives. Typical public benefits arising from GI include healthier lifestyles, retention of entrepreneurial talent, thriving biodiversity, distinctive landscapes, adaptability to future climate change and free access to open space.

**South East Plan**

The Regional Spatial Strategy for the South East, setting out key spatial and planning principles for the region to 2026

| | |
|---|---|
| **Stepping Stone** | A corridor linking two or more multifunctional green infrastructure priority areas – the aim is to encourage biodiversity and human access linkages across landscapes which would otherwise be inaccessible or very fragmented. |
| **Supplementary Planning Documents (SPD)** | Expand or add detail to policies laid out in LDF development plan documents |
| **Urban Connection Point** | Areas where it is desirable to encourage human access from residential areas into the green network. |
| **Urban Greenway/Blueway** | A near-continuous linear green space (perhaps including an urban river) in which ecology and public access (sensitively-managed where necessary) is encouraged. |
| **Working Landscape Hub** | Service centre for the productive rural economy; or a place where urban residents might go to meet rural businesses. Included in the strategy because of the desirability of improving social and tourist linkages between rural and urban communities. |
| **Window on the Solent / Waterfront** | A stretch of coastline of distinctive character, in which it is proposed to safeguard existing assets, create new parks, promenades, viewpoints, nature reserves,etc; as appropriate to the character of the "window". These are the foci of coastal green infrastructure investment; and are the coastal equivalent of green infrastructure gateways. |