

South Hampshire Sub-regional Strategy

Background Document 4

Critical other infrastructure requirements

Partnership for Urban South Hampshire

.....
December 2005

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ANNEXE

A. Infrastructure Requirements Implementation Plan

1. INTRODUCTION

1.1 The South Hampshire sub-region includes the cities of Portsmouth and Southampton, the whole of the boroughs of Eastleigh, Fareham, Gosport, and Havant, together with the southern parts of East Hampshire, Test Valley and Winchester Districts, plus Totton and the waterside area of New Forest. The strategy drawn up by the Partnership of Urban South Hampshire (PUSH) is one of sustainable managed growth, which is led by economic development and investment in infrastructure, focused on the regeneration of Portsmouth, Southampton and other older urban areas.

1.2 The South East Plan proposes that 4,000 new dwellings per year should be planned for in South Hampshire. This would mean building 80,000 new homes over the 20 year South East Plan period between 2006 and 2026. The rate of development will depend on investment in associated infrastructure. Indeed the strategy is dependent on appropriate and timely investment in transport and other infrastructure, therefore, PUSH is seeking an agreement with Government on increased funding for infrastructure in South Hampshire.

1.3 This paper identifies the sub-regions infrastructure needs where known. This is based on information provided by the key provider authorities, agencies and companies, through the stakeholder workshops, the response to the "Where shall we live" consultation and meetings/telephone conversations.

1.4 The paper considers the following infrastructure needs:

- Affordable housing
- Water supply and waste water treatment
- Green infrastructure
- Health
- Emergency Services
- Community Facilities
- Children's Services
- Adult Services
- Renewable Energy
- Coastal Defences
- Waste Disposal

Transportation infrastructure is considered separately.

1.5 Each infrastructure/service is considered in more detail in the following sections. This outlines the source and means by which the information has been collected together with, where appropriate, additional background infrastructure information. The items of new improved infrastructure required and the costs where known are included in an implementation plan provided

as an annexe. Presented in tabular format this indicates the agency/authority responsible for delivery, infrastructure details, timescale and costs.

1.6 However, in many cases it has not proven possible for the providers to supply definitive information on precise requirements, timetables and costs etc. at this stage in the process owing to uncertainty about the precise location of future development. For these reasons it has not yet been possible to break down delivery programmes into 5 year periods as requested by the South East of England Regional Assembly (SEERA). Consequently, the information will need to be amended as more information becomes available and decisions about the detailed distribution of housing are made. This will be used to update this paper and provide SEERA with more detailed information as the South East Plan and the strategy for South Hampshire evolves and develops.

2. INFRASTRUCTURE NEEDS

2.1 Affordable Housing

2.1.1 Awaiting information. This will be provided to the Assembly early in 2006.

2.2 Water Supply

2.2.1 Water supply in South Hampshire is provided by Portsmouth Water Ltd and Southern Water. Portsmouth Water Ltd supplies the whole or part of Havant, Portsmouth, Gosport, Fareham, Winchester and East Hampshire local authority areas. Its principal sources are natural springs at Havant and Bedhampton, wells and boreholes throughout the area and a river abstraction at Gaters Mill on the River Itchen near West End Southampton.

2.2.2 In its response to the “Where shall we live” consultation the company was of the view that with the right phasing it would be able to supply the proposed rates of house building. However, they envisage more water efficient new housing and the development of a Winter Storage Reservoir at Havant Thicket.

2.2.3 The Havant Thicket Reservoir is identified in the South East Plan as a Strategic Water Resource that could be required over the period of the plan (Policy NRM2). The cost of the reservoir is estimated to be in the region of some £30 million. The companies outline programme indicates that its construction and commissioning will take place 2015/16 – 2020/21.

2.2.4 In relation to the potential Strategic Development Areas (SDA) Portsmouth Water already supply the existing community being developed at Knowle from their Shedfield Reservoir. Whilst there is sufficient capacity in the area additional mains would be required to serve new development in this locality. Hedge End is outside its current supply area but is crossed by its main from Gaters mill to Hoads Hill. Therefore it would be possible to supply this area from Hoads Hill using its existing pipe wayleave. However, the economics of supplying this area will depend on the outcome of the review of abstraction licences on the River Itchen.

2.2.5 Southern Water supplies the whole/part of Southampton, New Forest, Winchester and Eastleigh local authority areas. In its response to the “Where shall we live” consultation the company indicated that its Water Resources Plan for the period to 2030 aims to provide security of water supplies. The balance between supply and demand being maintained through a twin track approach of demand management in parallel with development of additional water resources, as required. The plan is integrated with those of other

companies via the Water Resources Strategy for the South East of England Group and aims that the development of regional strategic water resources should be shared between companies.

2.2.6 Prior to the current consultation on housing distribution the impact of rates of growth 30% above those set out in RPG9 and Sustainable Communities in the South East on the water resources strategy had been analysed by the water company. This is a higher rate of housebuilding than proposed by the South East England Regional Assembly (SEERA). This indicates that increased demands can be accommodated provided:

- New buildings accommodate water efficiency measures;
- Sustainability reductions in water abstractions required are no more than currently estimated by the Environment Agency;
- Construction of Havant Thicket Reservoir by 2020/21; and
- The timing of additional development takes account of the lead in times required for the construction of the new strategic reservoir.

2.2.7 Within the levels of housing development proposed the company believes adequate water resources can be made available, subject to the conditions defined above being met. Additional housing development will require investment in new or enlarged water mains. Concentrating Greenfield development into very large developments in a few locations minimises the cost of provision of this infrastructure.

2.3 Sewage Treatment

2.3.1 Southern Water also provides wastewater services over the whole of the South Hampshire Sub-Regional Strategy area. New development will require investment in extensions to existing treatment works or the construction of new ones. This investment will be funded by the Office of Water Services (OFWAT), the economic regulator for the water and sewerage industry in England and Wales, at each Periodic Review if it is supported by evidence of need in Local Development Frameworks. In all cases consent from the Environment Agency will be required for an increase in the volume of effluent discharged. A detailed assessment of the investment required to serve new development is only possible once the location, scope and timing of development have been identified.

2.4 Green Infrastructure

2.4.1 The Hampshire and Isle of Wight Wildlife Trust has provided estimates of the approximate levels of investment required to deliver the regional biodiversity commitments in the sub-region. They calculate that to meet Integrated Regional Framework (IRF) objectives over the first 10 years of the South East Plan period investment in the order of £35.6 million /annum is likely to be required. This is based on delivering the following:

- 'Green' infrastructure supporting new major development areas to meet multiple social objectives incl. biodiversity;
- investment to deliver biodiversity enhancements in Areas of Strategic opportunity for Biodiversity Enhancement (ASOBES), these are priority

areas for delivering biodiversity enhancements and are closely linked to securing statutory obligations in maintaining the integrity of Natura 2000 sites;

- investment to maintain current biodiversity, there are 12,030ha of terrestrial BAP habitats in South Hampshire, constituting 21% of the sub-region;
- investment required to enhance biodiversity, there are 19,835ha of land that may be readily enhanced, this is additional to the ASOBES; and
- investment in support infrastructure relating to livestock management of land.

There is also a need for investment in additional support infrastructure such as compensatory habitats associated with coastal management, Sustainable Urban Drainage Schemes, urban regeneration projects etc. that are not fully incorporated into these estimates.

2.5 Health

2.5.1 The Hampshire and Isle of Wight Health Authority through the stakeholder workshop process has indicated that the requirement for health facilities is influenced by many factors including:

- overall population size;
- the structure of the population e.g. age breakdown and trends;
- service changes e.g. the centralisation of specialist cancer services at the tertiary centre at the Southampton General Hospital, provision of an increasing range and scale of care in local settings and advances in technology etc.;
- the need to replace or substantially refurbish existing facilities because the age of the buildings. Whilst there are no current proposals the possibility cannot be ruled out.

2.5.2 The following broad brush cost estimates have been provided which provide an indication only of the type of investment that may be required linked to levels of house building and the associated population changes (scale, composition and location).

- 1 general practitioner per 1,800 to 2,500 total population (practices are now rarely less than 5 GPs with a trend towards larger practices with an extended range of services). Capital cost of approx. £0.5 million per GP. New premises will be needed in relation to the projected population increase but also in locations where it is proposed to develop new or expand existing communities
- Primary and Community Care centres typically serving populations of 50,000 to 100,000 at a cost in the order of £12 to £15 million. These are a new development providing an extended range of services, many of which are currently carried out in acute hospital settings. In Southampton city there are plans for a centre on the Western Hospital site (a LIFT project) and proposals are also being considered for two

further centres (one in the East of the City at Moorgreen and one in the centre at the Royal South Hants).

- Estimate one rehabilitation bed per additional 1,000 over 65's at a capital cost of about £250,000 per bed. The increasing number of over 65's in the population will have implications both for health and social care. Additional beds are likely to be located on existing hospital sites

At this stage it is not proven possible to estimate the cost of the above; this will be undertaken once the overall strategy and location and scale of development is determined.

2.6 Emergency Services

2.6.1 Fire cover in South Hampshire is provided by the Hampshire Fire and Rescue Service. From 2004 Hampshire Fire and Rescue Authority (responsible for the service) became a precepting authority enabling it to raise its own council tax.

The implications on the fire service of the levels of growth proposed have yet to be identified. This will need to be undertaken.

2.6.2 Hampshire Constabulary serves South Hampshire. A major review of police service boundaries is currently underway following a report by HM Inspector of Constabulary. Changes will be implemented over the next few years. By way of example, the police have indicated that in the event of development at north Whiteley or west of Waterlooville local provision could be provided through Police Offices providing a central point of contact for residents and business. This could be a “partnership” facility providing a “one stop shop” for services offered by the Partnership members. It could also provide a base for Police Community Support Officers (PCSO).

2.6.3 At this stage it is too early to predict the demand for police services, however, once the mix of development is known further detailed work can be undertaken to establish the policing requirement within the new developments.

2.6.3 Hampshire Ambulance Service NHS Trust serves south Hampshire. It has two main functions; the provision of an accident and emergency service to respond to 999 calls and a non-emergency service, which performs an essential role in taking patients to and from their hospital appointments. The implications on the ambulance service of the levels of growth proposed have yet to be identified.

2.7 Community Facilities

2.7.1 This area has yet to be assessed. Consequently, potential costs are as yet unknown.

2.8 Children's Services (formerly education)

2.8.1 Hampshire County Council's Children's Services has provided an initial estimate of the possible levels of provision required and costs. At this stage they are "worst case scenarios" as it is not possible to take into account of the availability of places in existing schools in the absence of detailed development locations.

This indicates that there will be a need for new secondary schools within both Strategic Development Areas (Fareham and Hedge End). It will be essential that there are sufficient houses initially built over a short period to ensure that a viable intake is available once the school opens, and the total number planned must not fall below the threshold for a viable school. This is approximately 5,000 dwellings. This is particularly critical within the Hedge End SDA as there is no easy alternative way to provide additional secondary places.

2.8.2 On the basis of the proposals published for public consultation each SDA will also require 4 new primary schools. Elsewhere primary and secondary schools provision can be met through new schools, extensions to existing schools or utilising existing spare capacity. Overall there is little cost difference between delivering the SDAs together with the three spatial options identified in the "Where shall we live" consultation with the costs of primary school provision ranging from between some £78.7 million to £81 million. Secondary school provision would cost between some £80.9 million to £83.7 million.

2.8.3 The cost of providing educational places as a result of the proposed growth within the two cities (Portsmouth and Southampton) has yet to be identified. Consequently, potential costs are as yet unknown.

2.9 Adult Services (formerly social services)

2.9.1 Hampshire County Council's Adult Services Department advises that the new housing proposed will bring an increased requirement for support and care services in addition to the physical and social infrastructure. Allowances for such provision should be recognised within the mix of housing types and tenures to be developed. Overall it is likely that the increased need for support and care will be proportionate to the growth in population but there is currently no additional funding to allow for such development.

2.9.2 The new housing provision which is to be developed in urban areas will place an additional burden on the current support services, development in green field sites will pose a different problem, possibly requiring the commissioning of new services or the expansion of existing support services to enable people to remain in their own homes. Through the Supporting People programme however current government plans propose a reduction in Supporting People funding in Hampshire.

2.9.3 The implications on Adult Services within the two cities (Portsmouth and Southampton) is not yet known.

2.10 Renewable Energy

2.10.1 The South East Plan - Policy EN1 Development Design for Energy Efficiency and Renewable Energy states that developments should provide at least 10% of the developments energy demand from renewable sources for housing over 10 dwellings and commercial schemes of over 1,000sqm. Policy EN4 Sub-Regional Targets indicates that for land based renewable energy in Hampshire and Isle of Wight the targets are as follows:
By 2010 115(MW) and by 2016 122 (MW).

2.10.2 Energy Efficiency will be achieved through the Local Development Framework (LDF) and planning application process., Possible measures may include:

- Passive solar design
- BREEAM rating (a tool to review and improve environmental performance throughout the life of a building).
- Combined heat and power (CHP)
- Micro-CHP
-

2.10.3 Renewable energy sources may include the following:

- solar water heating systems
- photovoltaic systems
- Wind energy
- Biomass heating and Combined Heat and Power
- Anaerobic digestion
- Heat pumps

The potential for some/all of the above measures will only become apparent when specific sites are known and master planning takes place. Therefore, at this stage it is not possible to identify costs.

2.11 Coastal Defences

2.11.1 Shoreline Management Plans (SMPs) establish the coastal defence strategy for the country's coastline that is technically, economically and environmentally sustainable. The South Hampshire coastline is covered by two approved SMPs: the West Solent and East Solent SMPs. The East Solent SMP which includes Portsmouth's coastline was completed in 1997 and following its publication a more detailed strategy for Portsea Island has been developed. The Portsea Island Coastal Strategy Study was published in July 2005. This includes a programme of coastal defence works. The total value of works over the next 20 years (current value costs) is approximately £55 million.

2.11.2 This is of particular relevance to the south Hampshire strategy that is based on the regeneration and renaissance of the two cities. In the case of Portsmouth approximately one-third of land within the city is in the bare earth tidal floodplain i.e. the natural floodplain without flood defences. The implications of the strategy in regard to climate change and associated predicted sea level rise and coastal defences will require further investigation.

2.12 Waste Disposal

2.12.1 Waste issues are being dealt with through the emerging Minerals and Waste Development Framework. Some 60% of Hampshire's waste facilities are located within south Hampshire. The type of waste infrastructure required change over time as there is a move to less disposal/landfill towards material recovery. Delivery of waste infrastructure will in part be expected through the new development areas e.g. the SDAs and urban extensions. New development will be expected to contribute towards new infrastructure costs.

2.12.2 Whilst at this stage it is not possible to identify specific waste infrastructure requirements the following provides generic costs:

- Household Waste Recycling Centre (HWRC) – a stand alone split level facility. Costs dependent on the size and catchment served. Approx. cost £800,000 based on design/construction/supervision costs (excludes land costs).
- Resource Park – this is a new concept involving a cluster of recycling, recovery and other appropriate activities. This is evolving through the Materials Resource Strategy (MRS). None have yet been built in the County. Therefore costs are unknown and will be dependent on the scope/size of facility.
- Waste Recovery/Treatment facility – capital cost in the region of £30 million to £50 million.

3.0 CONCLUSIONS

3.0.1 At this stage in the evolving South East Plan process it is difficult for the service providers to provide detailed information of infrastructure needs and associated costs. This will only become clearer as the strategy is determined and the location, scale and timing of development becomes known. This is unlikely to be determined until much later in the planning process when specific sites are identified through the Local Development Frameworks (LDFs) produced by the Local Planning Authorities. Nevertheless, from the work undertaken it is apparent that the cost of future infrastructure can not be met through developer contributions alone and will require significant additional Government funding.

ANNEXE A. Infrastructure Requirements Implementation Plan

Utility/Service	Provider	Requirements/Programme/timescales	Costs
Affordable Housing	Housing Assoc./Govt	Information on public sector contributions to follow.	£awaiting info.
Water Supply	Portsmouth Water Ltd Southern Water	New Havant Thicket Winter Storage Reservoir Outline programme Development Planning Study & Planning application 2008/09-2009/10 Possible Public Inquiry 2010/11-2012/13 Detailed Design 2013/14- 2014/15 Construction & Commissioning 2015/16-2020/21 Additional mains also required e.g. to serve Strategic Development Area north of Fareham. New/enlarged mains will be required.	£30m (approx) £ costs unknown £ costs unknown
Sewage Treatment	Southern Water	Investment in extensions or new Sewage Treatment Works (STW) will be required.	£costs unknown
Green Infrastructure	Developer Conts.	Over the first 10 years of the plan period investment in the order of £35.6 million/annum is required to meet biodiversity and associated sustainable development measures. This is based on delivering the following: <ul style="list-style-type: none"> • 'Green' infrastructure supporting new major development areas; • biodiversity enhancements in Areas of Strategic Opportunity for Biodiversity Enhancement (ASOBES); • investment to maintain current biodiversity; • investment required to enhance biodiversity; and • investment in support infrastructure. There is also a need for investment in additional support infrastructure such as compensatory habitats associated with coastal management, Sustainable Urban Drainage Schemes, urban regeneration projects and alternative robust venues to National Parks that are not fully incorporated in these estimates.	£35.6m/annum (1 st 10 years)

Health	National Health Service	<p>Definitive infrastructure list yet to be defined on basis of:-</p> <p>1 General Practitioner (GP) per 1,800 to 2,500 total population (Practices generally 5 GPs, trend towards larger practices with extended range of services). Capital costs £0.5million per GP. New premises will be required to meet increased populations (where new or expanded communities proposed).</p> <p>Primary and Community Care centres will provide extended range of services currently carried out in acute hospital settings. Typically might serve 50,000 to 100,000 population – costs £12 - £15 million.</p> <p>Over 65s Health and Social Care - one rehabilitation bed per additional 1,000 over 65's – capital cost approx £250,000 per bed. Located on existing hospital sites.</p>	<p>£overall costs unknown at present</p> <p>£overall costs unknown at present</p> <p>£overall costs unknown at present</p>
Emergency Services	Fire Service	No information available at present.	£ not known
	Police Service	Cost of new Police Stations vary widely, depending on the size and scope of the facility. Provision in some areas may be through Police Offices.	£ not known
	Ambulance Service	No information available at present.	£ not known
Community Facilities	Developer Conts.	Yet to be assessed.	£ not known
Children's Services	Local Authorities	<p>Hampshire County Council Costs etc. are based on new school provision. "Worst case" scenario as availability of places in existing schools can not be taken into account until development locations are known. Each SDA will require 4 new Primary Schools and one new Secondary School. Elsewhere provision will be through new schools/extensions to existing schools.</p> <p>Range of costs dependent upon preferred option(s)/locations.</p> <ul style="list-style-type: none"> Primary schools (new/extensions) £79-£81 million; and 	<p>£79-£81m</p> <p>£81-£84m</p> <p>£ not known</p> <p>£ not known</p>

		<ul style="list-style-type: none"> Secondary Schools (new/extensions) £81-£84 million. <p>Southampton City Council No information available at present.</p> <p>Portsmouth City Council No information available at present.</p>	
Adult Services	Local Authorities	<p>Hampshire County Council (HCC) Increased requirement for support and care services in addition to physical and social infrastructure.</p> <p>Southampton City Council (SCC) No information available at present.</p> <p>Portsmouth City Council (PCC) No information available at present.</p>	<p>£ not known</p> <p>£ not known</p> <p>£ not known</p>
Renewable Energy	Private	<p>Potential scope for energy efficiency measures to be incorporated into new developments.</p> <p>Renewable energy e.g. biomass heating and Combined Heat and Power (CHP) and wind generation – potential will require further investigation.</p>	£ not known
Coastal Defences	Government	<p>Portsmouth City Council (PCC) Portsea Island Coastal Strategy Study includes a programme of coastal defence works. The total value of works over the next 20 years (current value costs) is approximately £55 million.</p> <p>Southampton City Council No Information available at present.</p>	<p>£55 million</p> <p>£ not known</p>
Waste Disposal	Local Authorities	<p>The type of waste infrastructure required will change over time as there is a move to less disposal/landfill towards material recovery. New development will be expected to contribute towards new infrastructure.</p> <p>Examples of infrastructure costs are as follows:</p> <ul style="list-style-type: none"> Household Waste Recycling Centre (HWRC) - stand alone split level facility. Costs dependent on size and catchment served . £800,000 approx (design/construction/supervision 	£ not known

		<p>costs. Excl land costs).</p> <ul style="list-style-type: none">• Resource Park – Costs unknown dependent upon scope/size of facility- possibly £millions.• Waste Recovery/Treatment facility – Capital cost £30 million - £50 million.	
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