



# Avonmouth Severnside

## Outline Development Strategy

April 2012 - Final Report



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### April 2012 - Final Report

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## Executive summary

### Introduction

Avonmouth Severnside is one of the West of England Local Enterprise Partnership (LEP's) most important economic development opportunities, which could contribute significantly to achieving employment and economic growth over the next 30-40 years. It has been identified by the LEP as an Enterprise Area. However, if the existing constraints are not addressed, development activity in the area is likely to be more limited and its full economic potential may not be realised. By intervening to remove these constraints, the public sector would:

- support the Government's priority to promote sustainable economic growth and jobs;
- protect existing businesses and investment;
- bring forward development opportunities that are attractive to the market;
- support the development of key growth sectors;
- help to promote international trade; and
- contribute to the maintenance of an internationally recognised ecological asset.

Bristol City Council and South Gloucestershire Council commissioned a study team led by WYG to formulate and assess a long-term development strategy for this economically and environmentally important area.

The Avonmouth Severnside area is located between Bristol and the River Severn, immediately adjacent to the M5 and M49 motorways. It is made up of two main areas of economic activity – Avonmouth in the south and Severnside in the north. Both Councils and other partners are keen to see a development strategy for the area to 2050 which optimises and develops its contribution to the local and national economy, whilst also protecting its environmental assets. However, the future development and role of the area is challenged by:

- an increasing risk of large scale flooding;
- nature conservation and ecology issues of European significance;
- the 1957/58 planning consents to the (then) ICI Chemical Works in Severnside, which remains extant, leading to:
  - the potential for unconstrained development and a lack of co-ordination with other parts of the area; and
  - limitations on the ability of the local authorities to realise infrastructure improvements through the development control process; and
- close proximity to the national motorway network but limited motorway connectivity and local network capacity.

This report considers the options for realising the opportunities and proposes an Outline Development Strategy. It then goes on to assess the costs, benefits and value for money of the proposed Strategy and to identify how it could be implemented.

For the avoidance of doubt, it should be noted that this outline development strategy is not a statutory planning document in its own right.

## Avonmouth Severnside

### *Economic profile*

In 2010, there were some 14,200 people employed within Avonmouth Severnside. The three largest sectors in terms of employment were transport and storage (23%), wholesale (22%) and manufacturing (18%). This contrasts notably with the pattern in each of the local authorities as a whole. The main sectors of employment in both Bristol and South Gloucestershire were finance and other business activities and public administration, education and health.

The sectoral breakdown of employment in Avonmouth Severnside reflects its attractiveness as an area for large-scale industrial, warehouse and distribution, energy and waste processing uses in addition to the activities of the Port and its associated storage and distribution facilities and associated industries.

The local area benefits from a large and diverse labour market. It has experienced significant population growth between 2006 and 2010, principally focused within the Bristol area where the overall population grew by 7%. In addition, educational attainment rates, coupled with strong graduate retention, have resulted in the development of concentrations of highly skilled workers.

### *Market assessment*

There is strong local demand, in particular, for storage and distribution accommodation. The locality is also an established area for energy and waste schemes, including sewage works, gas and fuel storage and traditional power stations. It continues to attract significant interest from a range of businesses involved in these sectors, and there are a number of substantial new energy and waste projects proposed.

There is, however, currently (as of April 2011) considered to be limited local demand within the study area and strong competition outside the area for higher value added B2 accommodation, particularly in the aerospace and advanced engineering sectors.

The nature and scale of future demand is likely to change, particularly as a result of the expected reduction in the number of new regional distribution centres. However, the medium and longer term demand outlook remains positive with growth expected in relation to environmental technology/waste, energy and Port-related and other logistics.

In relation to the overall level of current (as of April 2011) industrial supply, there is estimated to be almost 550,000 sq m of industrial and warehouse accommodation available across the Avonmouth Severnside area, with units of more than 4,645 sq m (50,000 sq ft) accounting for

approximately 90% of this availability. It should be noted that a significant proportion of these larger units are being advertised on the basis of Design and Build opportunities.

### *Policy context*

The redevelopment of the Avonmouth Severnside area is consistent with and will contribute to a range of national and sub-national economic development and growth policies. The area has been designated as an Enterprise Area by the West of England Local Enterprise Partnership (LEP) and is identified as a *'priority development location likely to require public investment'* within the West of England Delivery and Infrastructure Investment Plan.

South Gloucestershire Council's Local Plan (adopted 2006) recognises Severnside as a key strategic location of regional importance for a range of employment uses which require extensive areas of land, together with strong links to the motorways, the rail network and dock facilities at Avonmouth. Severnside is also identified as a strategic employment area within South Gloucestershire's Local Economic Assessment.

In relation to Avonmouth, it is identified, along with the Port of Bristol and the neighbouring Severnside area, as a strategic location for accommodating economic growth in the near future. Bristol City Council's Adopted Core Strategy (June 2011) encourages *'proposals for port-related activities, manufacturing industry, logistics/distribution, waste management and other environmental technology related industries'*.

### *Issues and constraints*

Even as things stand the Avonmouth Severnside area presents a substantial range of development opportunities, some of which would be realised over future years in a continuation of the existing pattern and pace of development. However, there exist a number of specific issues that could affect or constrain future development. If these constraints are successfully addressed there is the potential for a much greater economic benefit in terms of the scale, nature and pace of development to be realised. Some of the constraining issues are inter-related. They include, for example, limited opportunities to secure contributions to strategic infrastructure through the planning process due to extant planning consents (the 1957/58 permissions), increased flood risk and existing hazardous installations. Motorway congestion, motorway junction capacity and wider area accessibility also pose a number of issues, as does the need to comply with Habitat Regulations and other legal requirements, ecological and archaeological considerations. The presence of a significant number of generators of heat within the area means there is the potential to create a district heating network.

### *Additional economic development potential*

If the constraints can be addressed, the additional economic development potential of the area is considered to be substantial, with an estimated 420 ha of developable land identified. On this basis, the study area has the capacity to accommodate up to approximately 1.47 million square metres (sq m) of B2/B8 employment floorspace, creating the potential for some 20,000 jobs.

There is estimated to be some 40 years of development capacity (i.e. up to the year 2050) at Avonmouth Severnside. This assumes that demand may arise for up to 46,500 sq m per annum of new employment floorspace over the next ten years, subject to viability, falling to 33,500 sq m per annum thereafter until the area is fully developed out.

Over this 40 year period it is anticipated that development will come forward across sites benefiting from the 1957/58 permission, previously developed land and other greenfield development land at different rates.

## Realising the Opportunity – an Integrated Strategy

There is a clear rationale for public sector intervention to realise the opportunities presented by Avonmouth Severnside in achieving economic growth and employment over the next 30 – 40 years. Existing constraints in relation to land and infrastructure are such that future private sector investment would be more limited and existing investment would be placed at increasing risk unless these issues are addressed.

A number of intervention options have been considered with regard to infrastructure issues relating to flood defences, major accident hazards, ecology, transport, and other issues. The key issues are:

- Flood defences – an intervention option in terms of strategic flood defences is considered to be essential to support further development activity as a ‘do nothing’ approach would limit development and lead to individual owners raising site levels and thereby increasing flood risks to other sites. Two intervention options are identified for the purpose of this study: the first being new defences to a height of 10.74 metres above Ordnance Datum (OD) at a cost of £56.8 million, and the second new defences to a height of 12.74 metres OD at a cost of between £200 million and £300 million. The first option is recommended on the basis of its lower cost and the likelihood that the second option would be unacceptable for environmental reasons. The option assessment acknowledges that there would still be some residual risk of tidal flooding, and a risk of fluvial flooding would remain, even with the provision of new defences. These would require measures including the raising of land levels in certain parts of the area, the use of flood-resilient designs, and appropriate emergency plans, as well as robust management and maintenance of the new defences.
- Major accident hazards – options have been investigated in relation to the relocation of the National Grid’s Liquefied Natural Gas (LNG) facility (one of only three in the UK) and other installations in the area which store large quantities of hazardous substances, and as such are covered by the Control of Major Accident Hazard (COMAH) Regulations. It has been concluded that, as a result of the substantial investment that has taken place in the National Grid facility to date and other reasons, it is not feasible to include relocation as part of the Outline Development Strategy.
- Ecology – approximately 133 hectares (ha) of land is required to provide mitigation for the existing and planned development within the area in order to meet the requirements of Habitat Regulations. Of this, 38 ha may be satisfied by existing planning obligations, resulting in the requirement for the mitigation of an additional 95 ha. Options have been considered in relation to five sites within or adjacent to the area totalling some 229 ha.

Taking into account the suitability of each site or parts of each site for mitigation, ownerships, and development potential, it is concluded that a number of identified sites are likely to be sufficient, with minor extensions, to accommodate all of the ecological mitigation that will be required (including the development of additional greenfield land).

- Transport – the need for a new M49 junction (including options) was considered in an earlier study undertaken by the Councils and recommended as an appropriate means to mitigate the road transport impacts of increased development in the area. The study takes these findings and recommendation into account.
- Other issues - other relevant issues are noted, including contamination, the capacity of utilities, archaeology and heritage factors, and issues in relation to green infrastructure. However, these concerns are not believed to require strategic options to address them – it is considered that they can be tackled on a site-by-site basis.

An Outline Development Strategy is proposed. Its vision statement for the area can be summarised that, by 2050, the area will be an internationally significant industrial location and home to key sectors, drawn by investment opportunities and a reputation for innovation, competitiveness and superb infrastructure. As a result, Avonmouth Severnside will provide up to 20,000 new jobs, benefitting local people and a highly skilled, adaptable, workforce to maximise economic growth and social inclusion.

## Costs, Benefits and Value for Money

### *Costs*

This study estimates that the capital costs (that are subject to a range of assumptions and that may vary) of delivering the key infrastructure works proposed to address constraints across the Avonmouth Severnside area, and thus release sites, are estimated to total £106.8 million (2011 prices). Of this, £59.8 million will be for flood defence works, £42.0 million for infrastructure works and £5.0 million for ecological mitigation works. Full details of these capital costs and associated assumptions are detailed in the technical WYG study. Alternative lower cost models are understood to be emerging in respect of the works proposed and should be given due consideration.

Alongside these capital costs, it is recommended that an allowance should be made for costs associated with implementing the development strategy for the area. Initial provision of £150,000 per annum should be made for a three person team comprising project management and appropriate technical and administrative support functions.

### *Benefits*

#### **(i) Overview**

A range of use scenarios have been tested to provide an indication of the likely range of benefits that could be expected to arise from development of sites across Avonmouth Severnside. All scenarios assume that 5% of total floorspace will be developed for Sui Generis uses, principally

associated with utilities and energy. The split between other uses across the remaining floorspace is assumed to be as follows:

- Scenario 1 – 100% of remainder for B8 logistics and distribution;
- Scenario 2 – 75% of remainder for B8 logistics and distribution, 25% for B2 manufacturing; and
- Scenario 3 – 50% of remainder for B8 logistics and distribution, 50% for B2 manufacturing.

For each of these scenarios the potential scale of the benefits has been estimated, focusing on employment and Gross Value Added (GVA), over a 40 year period. Scenario 3 could, for example, reflect the positive impact associated with the proposed economic development programme, which would target high value added B2 activities.

## (ii) Gross employment

The assessment of gross employment - the number of gross direct permanent jobs - generated under each scenario has been based on the expected quantum of future employment floorspace delivered across the whole of the Avonmouth Severnside area. The profile set out in Table 4.2 highlights the amount of new floorspace by use class for each scenario, excluding floorspace that is currently under development or committed.

Table 1: Employment floorspace (sq m)			
	Scenario 1	Scenario 2	Scenario 3
B2 Manufacturing	0	275,000	550,000
B8 Logistics and distribution	1,099,000	825,000	550,000
Sui Generis	58,000	58,000	58,000
<b>Total</b>	<b>1,157,000</b>	<b>1,157,000</b>	<b>1,157,000</b>

Employment density ratios consistent with those set out within the guidance produced for the Homes and Communities Agency (HCA)<sup>1</sup> have been used to calculate the gross direct employment impact associated with the new floorspace provided under each scenario.

Table 2: Gross direct employment accommodated across Avonmouth Severnside			
	Scenario 1	Scenario 2	Scenario 3
B2 Manufacturing	0	7,640	15,270
B8 Logistics and distribution	13,740	10,310	6,870
Sui Generis	230	230	230
<b>Total</b>	<b>13,970</b>	<b>18,180</b>	<b>22,370</b>

<sup>1</sup> HCA (2010), *Employment Densities Guide*, 2<sup>nd</sup> Edition.

### (iii) Net additional employment

In assessing the impact of each scenario the key issue to be addressed is the additionality of future development activity – the extent to which activity takes place at all, on a larger scale, earlier or within a specific designated area or target group as a result of implementing the development strategy for the area. In order to assess the additionality of this intervention, the following factors will need to be considered:

- leakage – the proportion of outputs that benefit those outside of the project’s target area or group;
- displacement – the proportion of project outputs accounted for by reduced outputs elsewhere in the target area;
- multiplier effects – further economic activity associated with additional local income and local supplier purchases; and
- deadweight – outputs which would have occurred without the project. This is assessed through the reference case (i.e. the do minimum option).

Table 3 summarises the estimated net additional permanent employment impact of each scenario after allowing for leakage, displacement, multiplier effects and deadweight.

Table 3: Net additional employment			
	Scenario 1	Scenario 2	Scenario 3
To 2020	1,820	2,370	2,920
To 2030	2,850	3,710	4,560
To 2040	4,090	5,320	6,550
To 2050	5,550	7,220	8,890

### (iv) Net additional GVA

An assessment has been undertaken of the net additional GVA generated, based on the employment impact outlined above. A profile of the net additional discounted cumulative GVA for each scenario is set out in Table 4.

Table 4: Net additional discounted cumulative GVA (£ million)				
	Year 5	Year 10	Year 20	Total
Scenario 1	192	528	964	1,416
Scenario 2	256	706	1,288	1,960
Scenario 3	321	884	1,613	2,505

### Value for Money

Based on the assessment of costs and benefits, Table 5 sets out the value for money associated with each of the scenarios. Assuming a capital cost of £106.8 million and an operating cost of £450,000 (over three years), the analysis indicates that all three scenarios deliver good value for money against established benchmarks for physical regeneration projects, with the return on investment being significantly higher than the national average of 8:1.

Table 5: Value for Money			
	Scenario 1	Scenario 2	Scenario 3
<b>Costs</b>			
Transport, flood and ecology (£ million)	£107.25	£107.25	£107.25
<b>Benefits</b>			
Gross employment	13,970	18,170	22,370
Net additional employment	5,550	7,220	8,890
Cumulative discounted net additional GVA (£m)	£1,416	£1,960	£2,505
<b>Value for Money</b>			
Gross cost per gross job - Flood, ecology & transport	£7,680	£5,900	£4,790
Gross cost per net job - Flood, ecology & transport	£19,320	£14,860	£12,060
Return on investment - Flood, ecology & transport	13.2:1	18.3:1	23.4:1

### Risks

An assessment of potential risks of Avonmouth Severnside has been carried out, taking into account mitigation and contingency measures. The analysis has been informed by the guidance contained within HM Treasury's Green Book. It considers key risk areas that may affect the successful delivery of the Strategy, establishing the overall severity of each risk, based upon a judgment of the likelihood and potential impact.

Against each identified risk, a rating (and score) has been given to the probability of the risk arising – ranging from very high (a maximum score of 5) to very low (a score of 1). The impact of each risk has also been assessed, using the same rating (and scoring) range as has been used for probability (i.e. a range of 1-5). The overall risk score is calculated by multiplying the probability score by the impact score (giving a maximum score of 25, representing an extreme risk).

After adjusting for mitigation and management measures, the average risk scores for each broad risk area are set out in Table 6. Overall, the level of risk could be considered low to medium. However, it should be noted that a number of issues – particularly flood risk, transport links, ecology, archaeology and funding – remain a significant risk in spite of the proposed mitigation measures.

Table 6: Mitigated risk scores for broad risk areas	
Risk area	Mitigated risk score
Procurement risks	6.0
Project specific risks	6.8
Client specific risks	6.0
Environment risks	6.9
External influences	8.3
<b>Overall</b>	<b>6.9</b>

## Delivering the Strategy

### *Funding*

In addition to major planning reform, the Coalition Government is utilising and developing various financial instruments to stimulate development. These include the following, all of which could be used for the development:

- Local Asset Backed Vehicles (LABV);
- Section 106 and Community Infrastructure Levy (CIL);
- Tax Increment Financing (TIF);
- Regional Growth Fund (RGF);
- New Homes Bonus;
- Retention of business rates;
- Prudential borrowing;
- The 'Growing Places' Fund;
- Revolving Infrastructure Fund (RIF); and
- Coastal Communities Fund.

The assessment of costs has indicated a total cost for infrastructure of up to £106.8 million. This investment has the potential to 'unlock' sites, with the development of these then considered to be viable. Funding is therefore required to meet the identified costs of infrastructure.

Of the funding opportunities identified, the most appropriate in relation to the programme would appear at this stage to be TIF, based on the retention of rates generated through business growth in Avonmouth Severnside, together with other public and, where available, private funding.

An indicative model has been prepared to demonstrate the potential increase in rates revenue that may be generated by the project over a period of 25 years; this indicates that up to some £73 million might be raised through TIF. This would result in a shortfall of some £33.8 million which would need to be met from other sources (such as RIF, CIL from across the local authority areas and, where available, private sector funding). However, it will also be important to continue to assess alternative cost models for the works proposed.

### *Governance and management*

Appropriate governance and management arrangements will need to be put in place in order to realise the area's potential as a major employment location and to address the constraints relating to flooding, ecology and transport.

It is envisaged, as noted above, that a Board or Steering Group will be established at the outset including local authority, public sector partner, and private sector land ownership interests. It will also include representation by the West of England LEP.

Critical to the success of the strategy and implementation plan will be the establishment of an executive team to take forward the technical aspects of the project in terms of detailed feasibility and design, consents and approvals, and project management and implementation. The engagement of a highly skilled Project Manager and small support team that can make early progress in working up the proposals and taking the scheme forward will be important.

The Project Manager will work closely with the Board/Steering Group and with other partners such as the Environment Agency, Highways Agency, and Natural England, as well as the private sector, to develop and deliver the project. The focus of the Team would be on development and delivery of a clear strategy. As the project develops, it is anticipated that additional project managers will be appointed to develop and implement specific projects.

The current economic climate and restrictions on public sector expenditure pose a significant challenge to developing and implementing a strategy for Avonmouth Severnside. However, there are also opportunities for the authorities and their partners to work innovatively with the private sector to drive forward the regeneration of the area.

In response to the current constraints, and in order to maximise the leverage of private resources, a range of public powers and resources will be considered and used to: develop feasibility and strategy; implement an infrastructure strategy to establish a setting for development; and secure development.

### **Conclusions**

The Outline Development Strategy assessment has shown that development of sites across Avonmouth Severnside is likely to result in significant economic benefits for the local area. Depending on the use class assumptions, the gross employment potential ranges from just under 14,000 to more than 22,000. The net additional employment (i.e. that which is dependent upon addressing identified constraints) is estimated to be between 5,550 and 8,890.

These benefits cannot be generated without costs being incurred. Estimates suggest total capital costs in the region of £106.8 million. Nonetheless, based on these costs a value for money analysis shows positive results. The analysis indicates that all three scenarios deliver good value for money against established benchmarks for physical regeneration projects.

It is evident from the assessment that considerable potential exists for Avonmouth Severnside to develop further as an economic growth point. However, it is equally evident that without a concerted effort from a wide range of bodies and groups to comprehensively address the

constraints to development this potential will at best be much slower to be realised but more realistically will not be achieved.

An integrated strategy is required that can protect and enhance the areas national and international ecological standing, whilst simultaneously enhancing its flood defences and maximising its economic development potential. Such an approach will generate significant benefits for local residents and well as local, regional and national businesses.

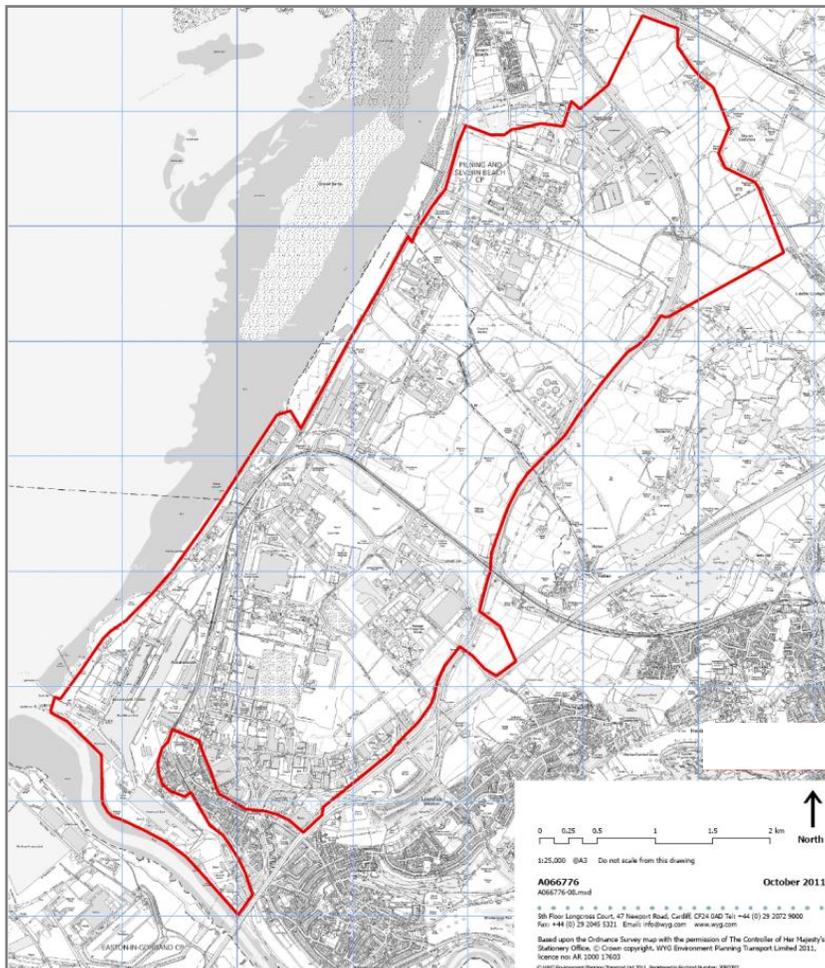
# 1 Introduction

## 1.1 Overview

Bristol City Council and South Gloucestershire Council commissioned a study team led by WYG to formulate and assess a long-term development strategy for the economically and environmentally important area of Avonmouth Severnside.

The Avonmouth Severnside area is located between Bristol and the River Severn, immediately adjacent to the M5 and M49 motorways (see Figure 1.1). It is made up of two main areas of economic activity – Avonmouth in the south and Severnside in the north. The area comprises a mix of industrial, storage and distribution, power generation, waste recycling and disposal, sewage treatment and gas storage facilities, together with the Port of Bristol and an area of agricultural land. In total approximately 14,000 people are employed within the area (Business Register and Employment Survey (BRES), 2010).

**Figure 1.1: Development area**



The area has seen considerable new development and redevelopment over recent years in particular for very large format warehousing/logistics and for new recycling and energy projects. Both Councils and other partners are keen to see a development strategy for the site to 2050 which optimises and develops its contribution to the local and national economy, whilst also protecting its environmental assets. However, the future development and role of the area is challenged by:

- an increasing risk of large scale flooding;
- nature conservation and ecology issues of European significance;
- the 1957/58 planning consents to the (then) ICI Chemical Works in Severnside, which remains extant, leading to:
  - the potential for unconstrained development and a lack of co-ordination with other parts of the area; and
  - limitations on the ability of the local authorities to realise infrastructure improvements through the development control process; and
- close proximity to the national motorway network but limited motorway connectivity and local network capacity.

Consequently, an integrated strategic approach is required to address these issues and to realise the opportunities through a long-term planned approach to future development and infrastructure provision to 2050.

This report sets out the Outline Development Strategy for the Avonmouth Severnside area. It draws upon various technical reports and documents prepared by the consultant team led by WYG and should be read alongside these.

## 1.2 Purpose

The purpose of this report is to:

- highlight the potential of the Avonmouth Severnside area and outline opportunities to realise it;
- identify and outline a response to issues and constraints within the area;
- consider options for realising the opportunities and to propose an Outline Development Strategy;
- assess the costs, benefits and value for money of the proposed Strategy; and
- identify how the Strategy could be implemented .

### 1.3 Structure

The report continues in five sections, as follows:

- Section 2 – reviews background and contextual conditions, as well as assessing the constraints and the scale of the economic development opportunity in terms of the amount of employment space and jobs that could be created if the constraints were overcome;
- Section 3 – sets out the rationale for intervening, considers the infrastructure options and presents the proposed Outline Development Strategy;
- Section 4 – assesses the costs, benefits and value or money of the proposed Strategy, along with the risks;
- Section 5 – outlines the potential approach to delivering the Strategy; and
- Section 6 – sets out the conclusions.

## 2 Avonmouth Severnside

### 2.1 Overview

This Section sets out an economic profile of the area, reviews the property market and summarises the policy context. It then goes on to identify issues that would affect and might constrain future development and, subject to addressing key issues, to assess the economic development potential of the area.

### 2.2 Economic profile

#### 2.2.1 *Employee jobs by industry*

The analysis of employee jobs is based upon data from the BRES. In 2010, the main sector of employment in both Bristol and South Gloucestershire was finance and other business activities, which accounted for 29.7% and 24.0% of employment respectively (above the England rate of 21.2%). The other major sector was public administration, education and health (28.3% in Bristol and 23.9% in South Gloucestershire compared to an England rate of 26.8%). Manufacturing accounted for just 5.0% of employment in Bristol and 11.8% of employment in South Gloucestershire, compared to a rate for England of 8.6%.

Overall, between 2008 and 2010, employment within Bristol and South Gloucestershire grew by 0.7% and 2.0% respectively. This compared to a decline in employment at the national level of around 2.5%.

At the local level, as of 2010, there were some 14,200 people employed within Avonmouth Severnside. The industrial sectoral breakdown of employment within the local area contrasts notably with the pattern in each of the local authorities' areas as a whole. The three largest sectors in terms of employment within Avonmouth Severnside were transport and storage (23%), wholesale (22%) and manufacturing (18%).

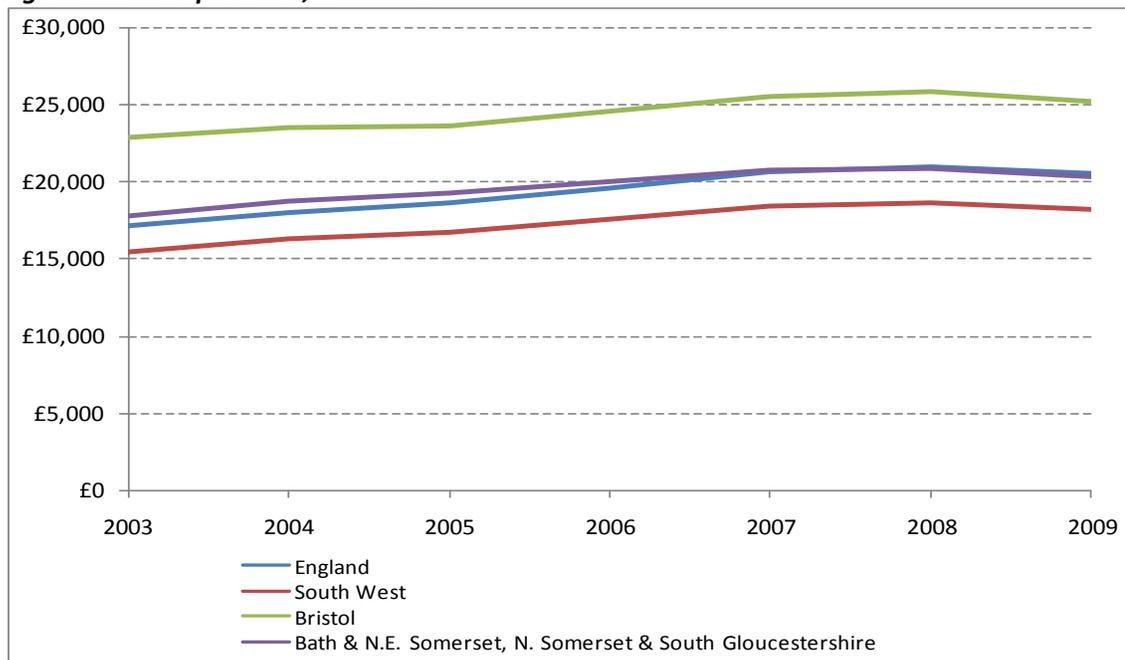
#### 2.2.2 *GVA*

In 2009, Bristol had a GVA<sup>2</sup>per head figure of £25,216, above the figure for England of £20,498. GVA per head across Bath and North East Somerset, North Somerset and South Gloucestershire was marginally lower than the England average at £20,399 in 2009. Between 2003 and 2009, the rate of growth in GVA per head in England was 19.0%, above the Bristol rate of 10.1% and the overall rate for Bath and North East Somerset, North Somerset and South Gloucestershire of 14.4% (see Figure 2.1).

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<sup>2</sup> Gross Value Added is a measure of the economic value of goods and services produced in an area.

**Figure 2.1: GVA per head, 2003 to 2009**



Source: Office for National Statistics

### 2.2.3 Key sectors

Avonmouth Severnside remains an attractive area for large-scale industrial, warehouse and distribution, energy and waste processing uses in addition to the activities of the Port and its associated storage/distribution facilities and industries. A brief overview of the key sectors, together with highlighting the Port’s recently approved expansion and its anticipated economic benefits is presented below.

#### (i) Distribution and logistics

Developers, retail companies and logistics companies have built and occupied large regional and national distribution depots at Avonmouth Severnside in recent years, making the area a major player in the national logistics network. The ready availability of large reasonably priced development sites close to the Port and access to the motorway network continues to prove attractive to distribution companies seeking to serve the South West and South Wales.

Companies locating to or expanding at Avonmouth Severnside in recent years include Culina Distribution, DSG International, John Lewis and Nisbets. Furthermore, there is evidence of substantial employment impacts, for example:

- Tesco’s new regional distribution depot adjacent to the M49 employs 700 staff;
- the proposed new Co-op depot is expected to generate 1,000 new jobs; and
- Asda are looking to employ over 800 staff at their proposed new regional depot.

It has been estimated<sup>3</sup> that the recent logistics / distribution depot development activity at Avonmouth Severnside could create up to 4,000 jobs, although this rate of job growth is unlikely to be sustained over the long-term given that all the major food retailers will have made their respective investment decisions by 2012. However, reflecting its proximity to the Port and motorway network, alongside the availability of large sites, the area is likely to remain attractive to distribution and logistics businesses.

## **(ii) Environmental technologies and energy**

The environmental technologies sector contributes £529 million towards the City of Bristol's GVA, with a GVA per full-time equivalent (FTE) employee of £56,800 demonstrating high productivity. The number of businesses in this sector in Bristol is relatively low (620, 3.5% of the total), but its location quotient of 1.07 shows that the number of businesses is above average nationally, representing a competitive advantage for Bristol.<sup>4</sup>

With a nucleus of high profile companies in renewable energy, water management, waste management, recycling, energy control, sustainable transport and environmental consultancy services, Bristol is recognised as one of the leading centres of environmental technologies in the UK. South Gloucestershire has also identified environmental technologies as a key sector, reflecting the recent growth of renewable energy generation businesses.

Within Bristol, the renewable energy sector is currently relatively small in terms of direct jobs but has identified potential for growth depending on a number of factors. These include environmental protection legislation and regulations, the ability of innovative businesses to develop new products and services, and the ability of the area to attract new investment - particularly manufacturing investment in the rapidly expanding renewable energy sector. Avonmouth Severnside is a potentially attractive location for many environmental technology, waste and energy businesses.

The development of new energy facilities means, for example, that there would be potential to export energy as steam or hot water to businesses currently located on or close to the energy plants and/or to attract new energy users to the area. This could help to increase competitiveness and expand the local economy. The most economically viable users would be those located within close proximity of the facilities, which require large, consistent quantities of heat (or cooling via absorption chilling). As well as refrigeration, this might be attractive to certain industrial processes such as those in the food and drink sector (including brewing/malting and livestock/pet food processing).

Seven sites have been allocated for the development of residual waste treatment facilities across the Avonmouth Severnside area. The local authorities have thus recognised the potential for growth in this sector in the area and proposals have already been submitted by developers for some of these sites.

## **(iii) Bristol Port – deepwater expansion**

Ports are acknowledged as the UK's trade gateway to the rest of the world and are considered vital for the UK's economy to thrive and grow. It is estimated that approximately 95% by

<sup>3</sup> Bristol City Council (2011) 'Bristol Local Economic Assessment', p18.

<sup>4</sup> Bristol Local Economic Assessment, 2011

volume, and 75% by value, of the country's international trade is transported by sea. In 2004, total UK imports across all transport modes were valued at £249 billion and exports at £191 billion, which indicates that approximately £440 billion of the UK's international trade was moved through its seaports.

In March 2010, Bristol Port received planning consent for the construction of a Deep Sea Container Terminal (DSCT). As one of the country's fastest growing ports, Bristol is developing its role as a gateway container port for the UK and a transshipment point for the Atlantic seaboard and Europe.

Bristol Port is a key employer supporting some 7,600 jobs either directly, through associated activity, or through linkages within the local economy.<sup>5</sup> This represents a significant proportion of the total employment across the overall Avonmouth Severnside area. Employment in port-specific industries in the immediate area is high and growing as a proportion of all employment, especially in Avonmouth in which around 25% of port employees live.

It is projected that the proposed port expansion will require about 1,500 jobs when fully operational, in both direct port employment and port associated activities such as transport services, shipping and freight forwarding. A further 260 jobs would be generated through multiplier effects. Some 360 new full-time equivalent jobs are expected during the construction phase.<sup>6</sup> Many of these jobs will require more skilled workers earning higher than average wages. The Company is reliant on the wider economic infrastructure to support these new jobs and related services.

In total the proposed DSCT development is estimated to generate over £114m a year in the local economy. This arises from the incomes of direct employees, the income retained in the economy through supplier expenditures and through port clients' spending locally and through multiplier linkages.

In the medium to longer term, the continuing development of the Port of Bristol and proposed DSCT is likely to bolster logistic related development at Avonmouth Severnside.

#### 2.2.4 *Labour market characteristics*

The area benefits from a large and diverse labour market:

- the area experienced significant population growth between 2006 and 2010, principally focused within the Bristol area where the overall population grew by 7%. As a proportion of the total, the working age population is also relatively high in Bristol at more than 70%. By comparison, the proportion resident population of South Gloucestershire of working age is closer to the national average at around 65%.
- educational attainment rates, coupled with strong graduate retention, have resulted in the development of concentrations of highly skilled workers within the local area. Some 37% of the resident working age population of Bristol were qualified to NVQ Level 4 or above in 2010.

<sup>5</sup> <http://www.bristolport.co.uk/about>

<sup>6</sup> <http://dsct.bristolport.co.uk/economic>

- while unemployment in South Gloucestershire was somewhat below the national average of 3.8% in September 2011, rates for Bristol were higher at 4.1%. This signals the availability of a resident labour pool actively seeking employment within the area. However, Avonmouth Severnside has a relatively limited immediate local supply of labour and limited public transport accessibility due to its location.

A more detailed analysis of local labour market characteristics is set out in Appendix A.

## 2.3 Market assessment

### 2.3.1 Introduction

This section comprises a summary of review work undertaken by Thomas Lister of the local property market context, which includes an assessment of demand, supply and values for industry/warehousing, offices and land carried out in April 2011. The assessment has also been informed by take-up rate and rental trend analyses. The full Market Assessment is presented at Appendix B.

### 2.3.2 Demand

Demand across the area has been assessed through the analysis of deals that have occurred over recent years, with a particular focus on the quantum of space transacted. Information has been derived from databases including the CoStar's Focus Property Database and verified through discussions with local agents and developers.

#### (i) Industrial/warehouses

There is strong local demand, in particular, for storage and distribution accommodation. Developments within Avonmouth Severnside have been very predominantly warehousing in nature and include regional distribution centres for retailers such as Next, Dixons and Tesco, as well as a Royal Mail distribution centre. There are also a number of manufacturing industries located within the area, including GKN and Warburton.

As requirements for regional distribution centres are satisfied at Avonmouth Severnside and other locations within the South West, demand for very large units may fall away resulting in a shift in the uptake profile. Table 2.1 provides an analysis of transactions since 2001 excluding units of 9,290 sq m (100,000 sq ft) and over. This demonstrates significant underlying demand for units of less than 9,290 sq m.

The overall marketing period for industrial/warehouse properties on the market at the time of this review averaged around 1.6 years. For new properties and Design and Build packages the average marketing period is longer at just over 2 years.

It is possible that additional levels of demand will be generated as a result of the Port and its proposed extension, leading to an increase in imports. Furthermore, the increasing prevalence of on-line shopping will create additional demand from existing retailers, as they restructure supply chains, and new and emerging providers.

<b>Table 2.1: Industrial/warehouse space transacted (excluding transactions of 100,000 sq ft and over)</b>					
<b>Year</b>	<b>No. of transactions</b>	<b>Area (sq m)</b>	<b>Av. transaction area (sq m)</b>	<b>Max transaction area (sq m)</b>	<b>% largest of total transaction</b>
2001	13	16,046	1,234	2,323	14.47%
2002	9	4,338	482	936	21.57%
2003	15	22,000	1,467	3,828	17.40%
2004	25	40,564	1,623	7,772	19.16%
2005	13	30,873	2,375	4,768	15.44%
2006	15	19,504	1,300	4,738	24.29%
2007	33	40,340	1,222	4,870	12.07%
2008	27	32,244	1,194	3,803	11.80%
2009	29	17,791	613	2,160	12.14%
2010	22	35,140	1,597	7,728	21.99%
<b>Average</b>		<b>25,884</b>	<b>1,288</b>	<b>4,293</b>	

Source: CoStar Focus (Thomas Lister Market Assessment - Appendix B)

#### **(ii) Energy and waste projects**

The locality is an established area for energy and waste schemes, including sewage works, gas and fuel storage and a gas fired power stations. It continues to attract significant interest from a range of businesses involved in these sectors, and there are a number of substantial new energy and waste projects proposed, many within the site of existing facilities. For example, the Bristol Recycling Park forms part of St. Modwen's Access 18 proposals that includes a 'waste-to-energy' scheme. In addition, the proposed Helios Energy scheme was recently granted planning consent upon appeal, and comprises a biomass power plant on a 7.7 hectare (ha) site within Avonmouth Dock.

#### **(iii) Higher value added B2 accommodation**

At the time of this review there was considered to be limited local demand within the study area and strong competition outside the area for higher value added B2 accommodation, particularly in the aerospace and advanced engineering sectors. For example, Filton has strong links with the aerospace industry and is largely owned by BAE Systems who rent out facilities to other parties including the use of the runway, although this is to close at the end of 2012. Filton is also closely linked to nearby facilities for the Ministry of Defence, University of the West of England and Rolls Royce. In addition, the Bristol and Bath Science Park (BBSP) is situated around 2 miles from the main Filton complex and is identified for research and development purposes for aerospace industries with the National Composites Centre being developed on the site.

GKN has occupied a new facility at Severnside for the manufacturing of structural components for wings for Airbus and there is an aspiration to attract additional aerospace and related industries to the study area. However, at present there is believed to be limited potential to attract such uses given the proximity of the area to Filton and BBSP.

#### **(iv) Office accommodation**

The demand for office accommodation is considered low due to Avonmouth Severnside's location. Furthermore, planning policies have not, to date, supported such development. There

is little stand alone office space available within the study area, with only around 790 sq m (8,500 sq ft) being transacted on an annual basis and with average marketing periods of around 16 months.

**(v) Future demand**

The area has been particularly successful in attracting investment from national major distributors and energy/waste despite sub-optimal access to the motorway network. The nature and scale of future demand is though likely to change, particularly as a result of the expected reduction in the number of new regional distribution centres. However, the medium and longer term demand outlook remains positive with growth expected in relation to environmental technology/waste, energy and Port-related and other logistics.

**2.3.3 Supply**

The assessment of the overall level of industrial supply at April 2011 focuses on three distinct character areas:

- Avonmouth Docks;
- Avonmouth South; and
- Avonmouth North and Severnside.

The amount of office space which is not ancillary to industrial/warehouse units within the study area is extremely limited and has therefore not been considered in depth. A more detailed review of supply by character area is set out in Appendix B.

The nature of those units available within the study area varies significantly between the three separate geographical areas. The area around the docks tends to include the oldest industrial stock, which is predominantly of a smaller size (say up to 1,000 sq m). Avonmouth South comprises mainly small and medium units with a greater variety of uses and the Avonmouth North/Severnside area has predominantly medium and larger size distribution units.

Table 2.2 consolidates the overall supply of units in order to provide an overview of the quantum of units currently available to potential occupiers/investors.

<b>Table 2.2: Availability of industrial/warehouse units and design and build opportunities (overall study area – April 2011)</b>		
Range of Unit Sizes	No. of Units	Quantum of space
< 93 sq m	0	0, sq m
93 sq m – 186 sq m	4	652 sq m
186 sq m – 465 sq m	12	4,075 sq m
465 sq m – 929 sq m	25	15,396 sq m
929 sq m – 1,858 sq m	14	17,026 sq m
1,858 sq m – 4,645 sq m	6	16,350 sq m
> 4,645 sq m	17	493,868 sq m

Overall, there is estimated to be almost 550,000 sq m of industrial and warehouse accommodation available across the Avonmouth Severnside area, with units of more than 4,645 sq m (50,000 sq ft) accounting for approximately 90% of this availability. It should be noted that significant proportion of these larger units are being advertised on the basis of Design and Build opportunities on sites within the 57/58 consented area. However, these sites are unlikely to be brought forward on a speculative basis in the short to medium-term without pre-sale or pre-lets.

#### 2.3.4 Values

Rental values have been assessed for industrial/warehouses, offices and land within the study area.

##### (i) Industrial/warehouses

Industrial/warehouse rental values associated with new space have tended to lie within the range of between £43 and £75 per sq m, dependent upon size and location, averaging £64 per sq m. Achieved rental value for all property (including both new and second hand premises) have averaged £51 per sq m over the past 5 years.

It is acknowledged that asking rentals for new units tend to lie within the range of £48 and £81 per sq m, averaging around £66 per sq m.

There have been a number of investment transactions over the last two years which have taken place within the study area. The yields for these have ranged from 5.85% to 9.1%.

##### (ii) Offices

Rents for office space within the study area range from between £54 to £161 per sq m. Deals concluded over recent years have shown that £54 per sq m has been achieved for poorer quality space (for example, the 1960s developed Surety House), whereas higher quality accommodation such as that within Green Court, with a BREEAM Excellent rating, has an asking rental of around £161 per sq m.

##### (iii) Land

Open storage land is available around the Docks with a quoting annual rental of around £86,500 per ha. Most of the land available within the study area is advertised as being developable on a Design and Build basis with land values of between approximately £800,000 and £865,000 per ha.

However, discussions with agents active in the area have identified that developers would be prepared to negotiate a straightforward sale based on rates of around £990,000 per ha, although this would not be their preferred option. Recent transactions show that rates of around £865,000 are achievable, for example the sale of the SITA site.

Land values reflect the residual value after the costs of the development including construction, fees, developers profit and interest have been deducted from the market value of the completed scheme. There is unlikely to be any great variation across the area, except where these are due to site-specific costs such as contamination.

## 2.4 Policy context

### 2.4.1 Introduction

This section reports on the review of economic development and growth policies relevant to the future development of the Avonmouth Severnside area. A more detailed review of the planning policy context is set out in the technical WYG report. National and sub-national policies support proposals to develop an Outline Development Strategy for the area.

### 2.4.2 National

A number of national economic development and growth policies and strategies are of relevance to the Outline Development Strategy for Avonmouth and Severnside. These include:

#### ***(i) Plan for Growth (BIS, HM Treasury, 2011)***

The overall objective of the Plan for growth is to *'achieve strong, sustainable and balanced growth that is more evenly shared across the country and between industries.'* The Plan contains four overarching ambitions, with the Outline Development Strategy being particularly well aligned to the third of these, *'to encourage investment and exports as a route to a more balanced economy'*. This ambition includes a focus on: ensuring that the UK remains one of the top destinations for foreign direct investment (FDI); increasing private sector employment, especially in regions outside London and the South East; and increasing investment in low carbon technologies.

#### ***(ii) Local Growth White Paper (BIS, 2010)***

The White Paper focuses on three issues: shifting power to local communities and businesses; promoting efficient and dynamic markets and increasing confidence to invest; and focused investment. The Outline Development Strategy sets out a package of integrated infrastructure and flood risk management interventions designed to ensure that the Avonmouth Severnside area is an attractive, business friendly location, which will increase confidence to invest in the area.

#### ***(iii) Strategy for Sustainable Growth (BIS, 2010)***

The Strategy sets out long-term plans for *'a sustainable economy that is greener, more enterprising, more technologically advanced, more balanced across the regions and grounded in diverse sources of sectoral strength.'*

It states that sustainable growth must be driven by the private sector and requires investment in the UK's productive capacity. This recognises the importance of investment in the economy, particularly investment in infrastructure, including green and environmental technologies, as proposed within the Avonmouth Severnside Outline Development Strategy.

### 2.4.3 Sub-National

#### (i) West of England Local Enterprise Partnership

Alongside the publication of the Local Growth White Paper in October 2010, the Government announced the approval of the first wave of Local Enterprise Partnership (LEP) proposals. After a successful bid, the West of England LEP has been endorsed by the government, with the LEP Board being formally established in March 2011.

The business-led LEP will sit at the heart of the sub-region's existing partnerships between local government, businesses and other partners in further and higher education, and across the public, private and voluntary and community sectors. The redevelopment of the Avonmouth Severnside area is consistent with the wide ranging approach to economic growth that the LEP Proposal sets out, in terms of addressing the following challenges:

- *key sectors* - supporting the sub-region's key growth sectors, including advanced engineering and environmental technologies/marine renewables; and
- *innovation* - supporting activities to create the optimum conditions for business to flourish and to overcome the constraints of further growth.

Furthermore, given the focus on unlocking economic opportunity, a potential priority for the West of England LEP will be in bringing forward sites for economic growth such as those within the Avonmouth Severnside area. The LEP Proposal states that this will be coordinated through the existing 'West of England Delivery and Infrastructure Investment Plan'.

#### (ii) West of England Delivery and Infrastructure Investment Plan (West of England Partnership, March 2010)

The Plan sets out the priorities and themes to be addressed by public investment in support of development in the West of England over the period from 2010 to 2015. The Plan prioritises 'place based' investment, which meets requirements arising at 'City Centre and Major Business Locations'. The Avonmouth Severnside area is identified as a '*priority development location likely to require public investment*'.

The LEP has identified Avonmouth Severnside as an Enterprise Area, which means that it could benefit from the retention of business rates generated through the designated Enterprise Zone area at Temple Quarter and, at the discretion of the local authority, could also benefit from other Enterprise Zone type advantages, such as a simplified planning regime.

#### (iii) West of England Joint Local Transport Plan 3 (2011-2026) (West of England Partnership, March 2011)

The Joint Local Transport Plan 3 was published in March 2011 and covers the period from 2011 to 2026. The Plan has as its vision, the creation of '*an affordable, low carbon, accessible, integrated, efficient and reliable transport network to achieve a more competitive economy and better connected, more active and healthy communities.*'

One aspect of the Outline Development Strategy for the Avonmouth Severnside area is the provision of improved transport infrastructure. The Strategy recognises that transport does to

some extent constrain development in the area and that access improvements could help to realise the area's full development potential.

#### 2.4.4 South Gloucestershire

##### **(i) South Gloucestershire Local Plan (South Gloucestershire Council, 2006)**

South Gloucestershire Council's Local Plan policies sought to realise Severnside's '*economic development potential*'. The Plan recognises the area as a key strategic location of regional importance for a range of employment uses which require extensive areas of land, together with strong links to the motorways, the rail network and dock facilities at Avonmouth.

##### **(ii) South Gloucestershire Draft Core Strategy (South Gloucestershire Council, 2011)**

South Gloucestershire Council submitted the Core Strategy and supporting documents to the Secretary of State on the 31<sup>st</sup> of March 2011 for examination. The Draft Core Strategy identifies a strategic objective to maintain economic prosperity, ensuring that South Gloucestershire plays its role in making the West of England economy '*one of the most prosperous, innovative and vibrant in Europe.*'

However, the Draft Core Strategy notes that although the Severnside area has extant planning permissions, there are a number of constraints which affect its development potential, for example, existing habitats, access, infrastructure and flood risk.

Further changes to the Draft Core Strategy have been published (December 2011) which include proposals for the redevelopment of the Filton Airfield site following the announcement by BAe Systems of their intention to close the facility at the end of 2012.

##### **(iii) South Gloucestershire Employment Land Review (South Gloucestershire Council, 2010)**

South Gloucestershire Council's Employment Land Review (Stage 3 June 2010) acknowledges the demand for accommodation for '*new technologies*' at Emersons Green and manufacturing and distribution facilities at Severnside. In particular, it notes that at Severnside there is active interest in developing the area – principally for distribution uses. The Review also notes that waste management and energy related developments have difficulty in finding appropriate sites, apart from Severnside, and suggest that planning policies should plan to accommodate such uses in the area.

##### **(iv) South Gloucestershire Local Economic Assessment**

This document, produced by the South Gloucestershire Economy and Skills Strategic Partnership, aims to establish a comprehensive understanding of the local economy, and the opportunities and challenges it faces. It provides a quantitative baseline to inform policy and strategy development. The assessment identifies Severnside as a strategic employment area, emphasising the need to address challenges and constraints to fully realise the potential economic value of the area. It also reflects aspirations to promote the development of a cluster green technology activities within the Severnside area.

#### 2.4.5 Bristol

**(i) Bristol Local Plan (Bristol City Council, 1997)**

Most of the specific Local Plan policies that governed development proposals within the Avonmouth area have not been saved and have been superseded by Core Strategy Policy BCS4.

**(ii) Bristol Core Strategy (Bristol City Council, 2011)**

Bristol has now adopted its Core Strategy and the policies in it must be read alongside other development plan policies. The broad approach of the Core Strategy is to balance support for the Avonmouth area's economic importance as the City's largest industrial area with the protection of its environmental assets.

Core Strategy Policy BCS4 deals specifically with the Avonmouth area and seeks to particularly encourage '*proposals for port-related activities, manufacturing industry, logistics/distribution, waste management and other environmental technology related industries*'. The policy also acknowledges that there may be opportunities for the development of '*energy from waste facilities, biomass energy and further large-scale wind turbines*'.

**(iii) Bristol Employment Land Review (Bristol City Council, 2009)**

Bristol Council's Employment Land Review 2009 notes that much of the land remaining in Avonmouth is being taken-up for large format distribution premises. The review acknowledges the role that this can play in supporting the operations of the Port of Bristol. On the basis that some industrial and warehousing operations require significant staff numbers to carry out their operations, the Review recognised that Avonmouth's limited local labour supply may be an issue. However, it also acknowledges that there would be unacceptable economic consequences if the process of renewal was to be prevented, undermining confidence in the area's future. Moreover, in view of its vital employment role and the key infrastructure located in the Avonmouth area, the Review concludes that it is essential that regeneration of the existing developed area is sustained.

**(iv) Bristol City Council Corporate Plan 2008-11 (Bristol City Council, 2008)**

The Corporate Plan sets out the vision for the City, and the short-term actions that Bristol City Council will take over the 2008-11 period in order to achieve it.

The Corporate Plan commits in the vision to '*a City that everyone is proud to live in. Whatever their age, origin, background, needs and lifestyle, we want all residents to have a sense of ownership and belonging.*'

As the Avonmouth Severnside Outline Development Strategy proposes a package of interventions for the area, a number of key Corporate Plan priorities and actions are of particular relevance. Under the priority of '*sharing in our city's prosperity*', by unlocking the development potential of the area, the Outline Development Strategy will help to contribute to fulfilling the actions to increase job opportunities in disadvantaged neighbourhoods, together with increasing the rate of business start-up and survival. Furthermore, the Outline Development Strategy will help to reduce CO2 emissions through investment in green and environmental technologies.

#### **(v) *Bristol's Local Economic Assessment (Bristol City Council, 2011)***

Bristol's Local Economic Assessment (LEA) presents a comprehensive review of the local economy to aid strategy and policy decisions. In particular, the LEA provides an assessment of the Avonmouth Severnside area, highlighting the opportunities and constraints with respect to further development. It states that the scale of development at Avonmouth Severnside in recent years has been of major economic benefit, and that there currently exist many regeneration opportunities. More specifically, Avonmouth, along with the Port of Bristol and the neighbouring Severnside area is identified as a strategic location for accommodating economic growth in the near future. The LEA indicates that the area could be of particular importance in respect of environmental technology businesses, ranging from waste recycling to renewable energy, in addition to building upon its role in the wholesale and distribution sector. However, the LEA notes that the ongoing development of Avonmouth Severnside may be hampered by flood risk and transport infrastructure (both road and rail), which could constrain its potential.

Despite an intensive period of logistics / distribution depot development at Avonmouth Severnside in recent years (particularly by major food retailers), the LEA considers that this rate of job growth is unlikely to be sustained given that all the major food retailers will have made their respective investment decisions by 2012. However, the LEA adds that in the medium to longer term, the continuing development of the Port of Bristol and the proposed deep sea container terminal is likely to sustain logistic related development at Avonmouth Severnside.

## **2.5 Issues and constraints**

### **2.5.1 *Introduction***

Even as things stand the Avonmouth Severnside area presents a substantial range of development opportunities, some of which would be realised over future years in a continuation of the existing pattern and pace of development. However there exist a number of specific issues that could affect or constrain future development. If these constraints are successfully addressed there is the potential to achieve a much greater economic benefit in terms of the scale, nature and pace of development. Some of the constraining issues are inter-related and are discussed in greater detail in the WYG report. The main issues and constraints are summarised below.

### **2.5.2 *1957/58 Permissions and planning history***

The history of the area's development includes planning permissions that were granted in 1957/58 (the 57/58 permissions) for the development of the (then) ICI chemical works in the Severnside area, which remain extant. These permissions represent an important opportunity in that there is a significant area of land within the study area that already benefits from planning permission for economic development. However, they are included in this section because the Councils have little opportunity to secure mitigation for the impacts of their development and because their ongoing implementation can be undertaken without the requirement to consider the need for other infrastructure to support the wider area.

Specific issues relating to the 57/58 permissions and the area's planning history include:

- the 57/58 permissions cover a substantial area within the northern part of the study area and can continue to be implemented without the need for further consents from the Councils. There is little opportunity to secure planning obligations from these developments;
- the implementation of the 57/58 permissions is likely to have a significant impact on the area's ecology and, if land raising continues for new developments, it is likely to increase the risk and severity of flooding for other development in the study area;
- much of the Avonmouth area to the south of the railway line comprises previously developed land or land that has the benefit of planning permission for development;
- there is little opportunity to develop the remaining greenfield land within the Avonmouth area south of the railway line that is not already allocated for development or the subject of an extant planning permission; and
- the existing hazardous installations (see Section 2.5.4 below) will constrain employment generating development on many sites within the study area, including a significant part of the greenfield land between the existing developed areas of Avonmouth Severnside.

### 2.5.3 *Flooding*

The risk of flooding has been identified as a potential constraint to further development of the Avonmouth Severnside area. Constraints as a result of flood risk exist as:

- the majority of the study area is at risk of tidal flooding (and parts are at risk of other forms of flooding) and that risk is likely to increase with climate change in the absence of mitigation measures;
- proposals for new development within the study area will need to address the Sequential and, in much of the area, Exception Tests and the development of greenfield land could be restricted where previously developed land remains available for development;
- the options identified to mitigate the flood risk will require the raising of the existing flood defences to a height of at least 10.74m Ordnance Datum (OD) and a combination of other measures (including on-site mitigation measures) to address residual flood risk in the area;
- the impact of land raising within the area of the 57/58 permissions is likely to increase the risk and dangers from flooding of other land and development within the study area;
- the impact of planned and further development on fluvial flood risk in the study area is unknown; and
- fluvial flood risk on some Greenfield sites within the central study area could be mitigated on adjacent or nearby land in conjunction with ecological mitigation requirements; and
- development is unlikely to be acceptable elsewhere within the functional floodplain.

#### 2.5.4 *Control of Major Accident Hazards (COMAH)*

The study area includes a number of industrial and infrastructure installations that use and/or store large quantities of hazardous substances. Significant employment development in proximity to such installations (within the Health and Safety Executive (HSE) Inner Consultation Zones in particular) is unlikely to be acceptable because of the risk from the hazards. Local planning authorities are required to consult the HSE on certain proposed developments in the vicinity of major hazard establishments and take account of its advice when making planning decisions.

Restrictions on employment development do not apply to the development of the 57/58 permission as this was granted prior to the introduction of HSE guidance. However, it is acknowledged that the presence of HSE Inner Consultation Zones may constrain future development by negatively affecting investor confidence.

As for previously developed land, COMAH-based constraints will need to be assessed on a site-by-site basis, although these may be outweighed by other material planning considerations in favour of such development.

The COMAH constraints could also limit the location of new transport infrastructure.

#### 2.5.5 *Ecology*

The Severn Estuary is a Site of Special Scientific Interest (SSSI) and is also designated as a Special Protection Area and a Ramsar site. It was fully designated as a Special Area of Conservation in 2009. The area's ecological importance is therefore internationally recognised, the safeguarding and maintenance of which are identified in development plan policies. Constraints exist as:

- proposals for additional development within the study area will need to be the subject of assessments under the Habitat Regulations;
- further development within the study area could have a significant impact on national and international nature conservation designations;
- ecological mitigation is likely to be required for existing consented and planned development within the study area;
- ecological mitigation is also likely to be required (on a worst case scenario - one square metre of land for every one square metre of greenfield development site) for the development of additional land, particularly greenfield land;
- ecological mitigation will be best on fewer large sites within or in proximity to the study area;
- site specific mitigation measures will be required to address impacts on protected species; and
- new infrastructure and the maintenance of existing infrastructure, including that identified in the Outline Development Strategy, is likely to have a impact on the area's ecology that will require mitigation.

### 2.5.6 *Transport and accessibility*

Real and perceived accessibility constraints and congestion may inhibit the rate of development within Avonmouth Severnside. Specific transport and accessibility issues include:

- additional development in the study area is likely to increase traffic movements on the highway network within and around the study area;
- a new M49 motorway junction could provide some benefits to the area; and
- other transport measures could have a limited impact on traffic in the area.

### 2.5.7 *Landscape, archaeology and green infrastructure*

It is acknowledged that proposals for new development within the study area will need to: incorporate measures to retain existing landscape features (where possible) and mitigate their impacts on these features; be sensitive to archaeological conditions and (where possible) mitigate their impacts on the area's archaeology; and provide Green Infrastructure in accordance with development plan policies and other material considerations. Constraints exist as:

- undeveloped parts of the study area are not the subject of local or national landscape designations, but do have a rural, historic landscape character;
- the development of further greenfield land within the study area will have the greatest landscape impact;
- much of the study area has archaeological potential; and
- Green Infrastructure corridors should be provided throughout the study area.

### 2.5.8 *District heating*

The separate technical report by WYG also examines, in broad terms, whether the development of a district heat distribution network is feasible and sets out proposals as to how this could be taken forward.

The evidence identifies that there is a significant number of generators of heat within the study area that could be used in a district heating system. Although there is the potential to generate electricity (via, for example, wind and solar technologies) to distribute beyond the study area, the study concludes that a local heat distribution network powered mostly with biomass and energy from waste Combined Heat and Power (CHP) plants offers the best renewable energy opportunity for the Avonmouth Severnside area because it will maximise the environmental benefits of the low carbon/renewable energy generated in the area.

The evidence identifies some potential anchor loads in the study area that could benefit from a district heating system and the study suggests that further investigations be undertaken to initiate the development of a district heating network in the southern part of the study area and that consideration be given to subsequently expanding this to the northern part of the study area.

The study concludes overall that, based on a number of assumptions about the mix of development, installing a district heating network to serve new developments in the area covered by the 57/58 planning permission in the north of the study area could be economically feasible and could assist the feasibility of installing a network supplying existing developments within the study area, which otherwise will be borderline.

The development of a district heating network is not essential for realising the area’s economic development opportunity, but could help to attract businesses with a high energy demand into the area. In the longer term, if such a system were viable, there is potential to link it to Bristol’s Heat Priority Areas.

The study does however include a number of important assumptions that will require further testing and presents a “best case” scenario that will need to be refined and validated with additional information and sensitivity analyses. In the event that a detailed analysis shows that the development of a district heating system is viable, it is likely to require the establishment of an Energy Services Company to fund the development and management of the network.

### 2.5.9 Summary

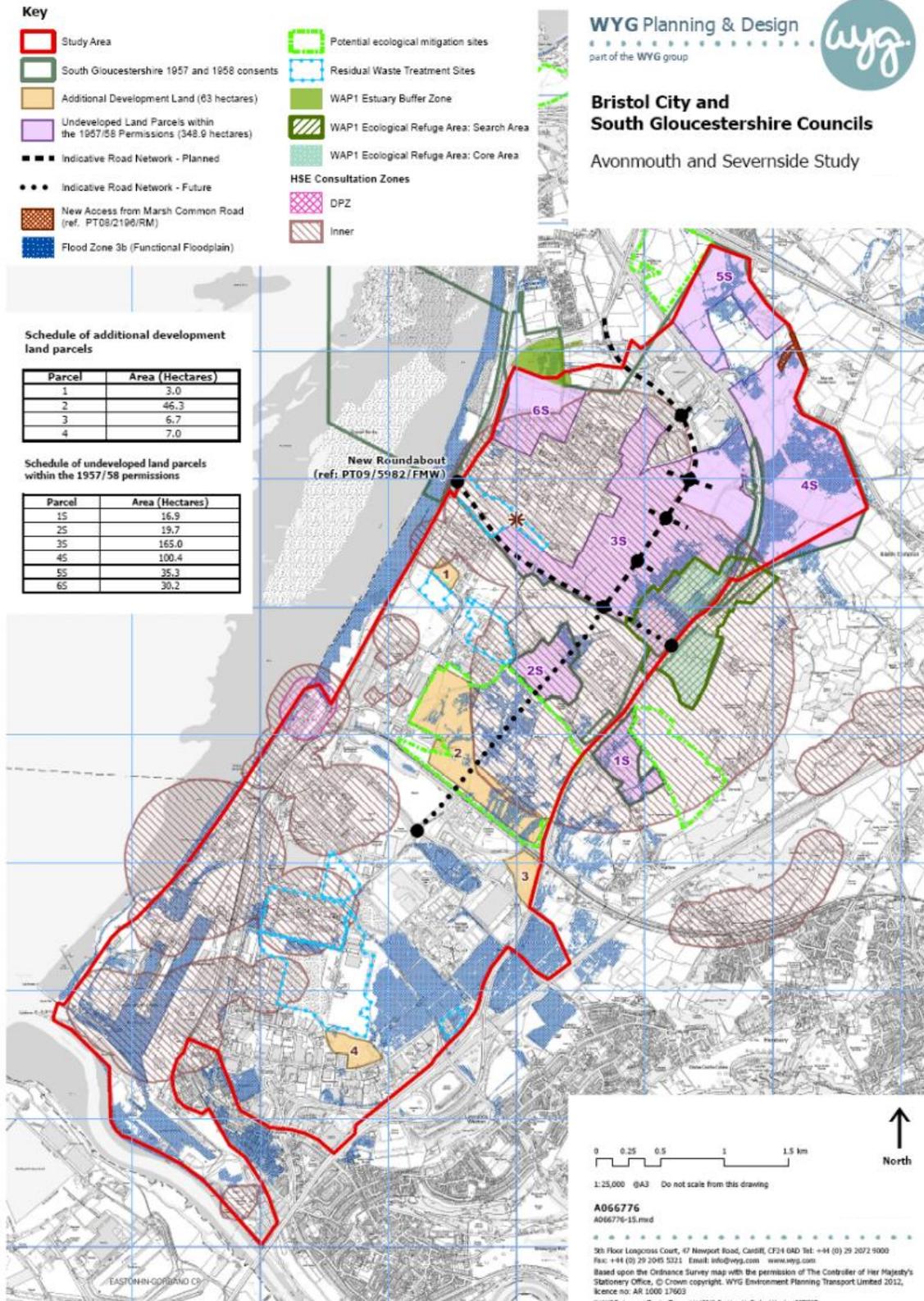
Table 2.3 summarises the key issues and constraints that are likely to impinge upon the further development of the Avonmouth Severnside area.

<b>Table 2.3: Key issues and constraints</b>
<b>1957/58 Permissions and planning issues</b>
<ul style="list-style-type: none"> <li>• limited opportunities to secure contributions to strategic infrastructure through the planning process;</li> <li>• increased flood risk;</li> <li>• little opportunity for the development of remaining greenfield land in Avonmouth (south of railway line); and</li> <li>• existing hazardous installations.</li> </ul>
<b>Flooding</b>
<ul style="list-style-type: none"> <li>• flood mitigation measures;</li> <li>• unknown impact on fluvial flood risk; and</li> <li>• functional floodplain.</li> </ul>
<b>COMAH</b>
<ul style="list-style-type: none"> <li>• investor confidence; and</li> <li>• development constraint.</li> </ul>
<b>Ecology</b>
<ul style="list-style-type: none"> <li>• compliance with Habitat Regulations and other legal requirements;</li> <li>• impact on nature conservation designations;</li> <li>• required ecological mitigation measures; and</li> <li>• specific mitigation for protected species.</li> </ul>
<b>Transport and accessibility</b>
<ul style="list-style-type: none"> <li>• motorway congestion, motorway junction capacity and wider area accessibility</li> </ul>

<b>Landscape, archaeology and green infrastructure</b>
<ul style="list-style-type: none"><li>• some undeveloped parts of the area have rural, historic landscape character;</li><li>• high landscape impact on development of greenfield land;</li><li>• much of the study area has archaeological potential; and</li><li>• required provision of Green Infrastructure corridors.</li></ul>
<b>District heating</b>
<ul style="list-style-type: none"><li>• significant number of generators of heat in the area;</li><li>• potential to create a local heat distribution network;</li><li>• could help to attract businesses with a high energy (heat) demand; and</li><li>• a distribution network could potentially be economically viable, subject to further detailed research and analysis.</li></ul>

Figure 2.2 illustrates the main development constraints.

Figure 2.2: Development constraints



## 2.6 Additional economic development potential

If the constraints can be addressed, the potential for further economic development within the area is considered to be substantial.

Overall, there is estimated to be some 412 ha of land across 21 separate greenfield sites within the Avonmouth Severnside area. The majority of this, some 350 ha across 13 sites, is consented under the 1957/58 planning permission, with two sites (comprising 105 ha) committed for development. Greenfield sites outside of the 57/58 consent (described as other greenfield development land) constitute some 63 ha.

Alongside greenfield sites, there is a significant quantum of previously developed land across the Avonmouth Severnside area. Over the ten years to 2011 approximately 40 ha of previously developed land was redeveloped, reflecting an average rate of 4 ha per annum. A number of large redevelopment opportunities remain and reflecting both historic uptake and the availability of land across the study area, it is estimated that some 120 ha of brownfield land could come forward for redevelopment over the period to 2050.

Based upon assumptions in respect of requirements for ecological mitigation and enhanced infrastructure, it is estimated that some 420 ha of the land identified will be developable. On this basis, the study area has the capacity to accommodate up to approximately 1.47 million square meters of B2/B8 employment floorspace (Table 2.4).

	<b>Total Area (ha)</b>	<b>Developable Area (ha)</b>	<b>Employment floorspace (sq m)</b>
1957/58 consented land	349.7	265.0	927,000
Previously developed land	120.0	102.0	382,000
Other greenfield development land	62.7	53.3	160,000
<b>Total</b>	<b>532.4</b>	<b>420.2</b>	<b>1,469,000</b>

\* Note – Table may not sum due to rounding

This profile reflects key assumptions outlined within the WYG analysis in respect of future development density across the area relating to:

- Developable area – it is assumed that development sites across the area will occupy approximately 85% of each development plot to allow for site-wide infrastructure; and
- Building footprint – the on-plot density estimate reflects specific assumptions relating to the characteristics of each area:
  - 1957/58 Consented land – a development density of 35% has been adopted reflecting densities for existing schemes across the area;
  - Previously developed land – reflecting densities previously adopted in the redevelopment of similar sites a density of 37.5% has been adopted; and

- Other greenfield development land – a lower density of 30% is assumed to reflect the need to retain important site features, incorporate green infrastructure corridors and provide ecological and flood risk mitigation.

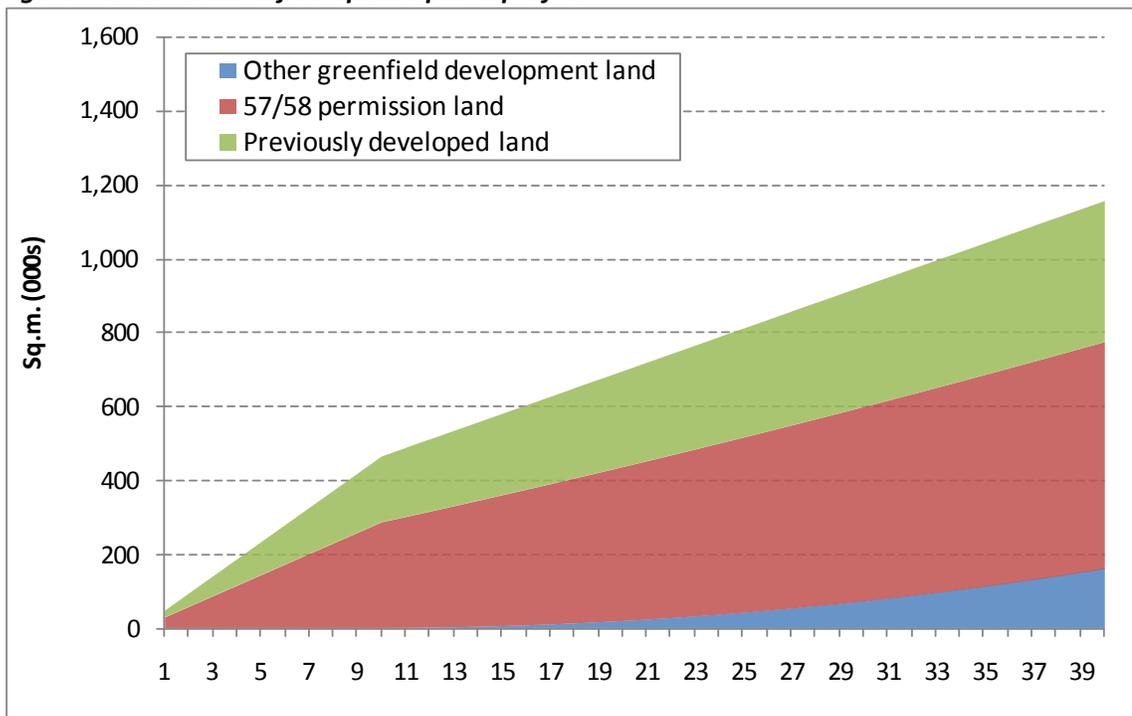
Based upon an assessment of take-up over the last ten years, alongside a consideration of the market for large format requirements, it is assumed that demand may arise for up to 46,500 sq m per annum of new employment floorspace over the next ten years, subject to viability.

Reflecting the development density assumptions outlined above, this level of uptake is broadly consistent with the estimated future development rate for the period up to 2021 outlined within the WYG Report.

From 2022, a more prudent view of uptake has been adopted, assuming that a greater mix of B2 and B8 development will come forward as the market for the large format B8 distribution becomes saturated. It has been estimated that some 33,500 sq m of floorspace will be taken-up annually across Avonmouth Severnside sites from this point until the area is fully developed out. Based upon this profile, there is estimated to be some 40 years of development capacity (i.e. up to the year 2050) at Avonmouth Severnside.

Over this 40 year period it is anticipated that development will come forward across sites benefiting from the 1957/58 permission, previously developed land and other greenfield development land at different rates. The anticipated profile of uptake is illustrated in Figure 2.3.

**Figure 2.3: Cumulative floorspace uptake profile**



This profile reflects the assumption that new accommodation will initially come forward on sites that have the benefit of planning consent under the 1957/58 permission and other sites that are serviced as a consequence of having been previously developed.

It is assumed that other greenfield sites that do not benefit from the 57/58 permission (the other greenfield development land) will not be developed out until constraints have been appropriately addressed and development plan policies have been amended to bring forward such land. It is anticipated that uptake across these sites will gradually increase as opportunities across other parts of the Avonmouth Severnside area become more limited.

It is therefore assumed that the development of the other greenfield land will not come forward until after 2021 and that the uptake of that land will increase as the availability of alternative sites (both those covered by the 57/58 permission and previously developed land) reduces as a result of development activity.

Based on this profile, the anticipated cumulative take-up of new employment floorspace is outlined in Table 2.5. This profile includes the delivery of floorspace already committed and under development.

<b>Table 2.5: Cumulative floorspace uptake (sq m)</b>				
	<b>2020</b>	<b>2030</b>	<b>2040</b>	<b>2050</b>
1957/58 consented land	329,000	553,000	752,000	927,000
Previously developed land	136,000	228,000	310,000	382,000
Other greenfield development land	0	19,000	72,000	160,000
<b>Total</b>	<b>465,000</b>	<b>800,000</b>	<b>1,134,000</b>	<b>1,469,000</b>

## 3 Realising the Opportunity – an Integrated Strategy

### 3.1 Introduction

Both Councils share a vision for Avonmouth Severnside to be an internationally significant industrial location. In order to achieve this, public and private sector investment will be needed. This section considers the rationale for the public sector intervening, the various options that are available to overcome the constraints and issues faced by the area and sets out a proposed Outline Development Strategy.

### 3.2 Rationale for intervening

Avonmouth Severnside is one of the West of England LEP's most important economic development opportunities, which could contribute significantly to achieving employment and economic growth over the next 30-40 years. It has, as noted, been identified by the LEP as an Enterprise Area. However, if the existing constraints are not addressed, development activity in the area is likely to be more limited and its full economic potential may not be realised. By intervening to remove these constraints, the public sector would:

- support the Government's priority to promote sustainable economic growth and jobs;
- protect existing businesses and investment;
- bring forward development opportunities that are attractive to the market;
- support the development of key growth sectors;
- help to promote international trade; and
- contribute to the maintenance of an internationally recognised ecological asset.

Therefore, there is a strong rationale for the public sector intervening to support the development of the Avonmouth Severnside area and remove barriers to growth. By doing so, it would address a number of market failures including information problems and positive and negative externalities. In addition, there would be further benefits through land owners working together to help address the key constraints and issues facing the area.

### 3.3 Infrastructure options

#### 3.3.1 Overview

A number of types and forms of intervention have been considered in terms of how best to overcome the constraints and release the potential opportunities. The potential options to address flood defences, major accident hazards, ecology, transport and other issues, are considered in turn below.

### 3.3.2 Flood defences

The market appetite for development at Avonmouth Severnside continues to be positive recognising its strategic location and economic potential. This is despite large parts of the area being at increasing risk of tidal (and in some areas fluvial) flooding and widely publicised general threats of global warming, rising sea levels and increasing flood risk in such areas. A recent study<sup>7</sup> identified that the mean sea level in the estuary will rise by approximately 1 m over the next 100 years. Without measures to improve the flood defences the rise in average sea levels means there will be an increased chance of significant flood events occurring more frequently.

Individual developers are carrying out mitigation to address some of these concerns on a site-by-site basis. However whilst the market sentiment remains positive, the Environment Agency and others with wider responsibilities in the area are articulating the need for a comprehensive approach to enhance the flood defences to protect the significant development that has already occurred and the committed and planned future development. This is needed so that the full economic potential of the area can be realised and sustained in the medium and longer term.

In the absence of an agreed flood defence strategy – in other words, a do nothing option - the Councils are likely to limit further development and consequently the economic development potential of the area. Although developers could continue to raise land levels on new developments (as has happened within the area covered by the 57/58 permissions and as is being proposed to a lesser extent in recent developments), this approach is likely to increase the risk and severity of flooding for others and is therefore also unacceptable.

Consequently, it is considered that a strategic approach to flood defence is needed. Two technical options have been considered with this study - a new strategic flood defence to a height of 12.74 m OD and a defence of 10.74 m OD - at estimated respective costs of £200-300 million and £56.8 million. Given the cost differential and reports suggesting that the higher defence is unlikely to be acceptable for environmental reasons, the latter approach has been recommended for further consideration in this assessment. Although this would help mitigate the risk of tidal flooding in the study area, it would not eliminate that risk nor address fluvial flood risk.

The opportunities to address the residual risk from flooding that would remain after the completion of a strategic defence include:

- localised raising of land levels (e.g. ensuring that new building footprints are set above potential flood levels);
- flood resilient development designs;
- a robust management and maintenance regime for the strategic flood defence; and
- appropriate emergency and evacuation plans.

These matters have generally been incorporated in recent development proposals that have come forward in the area and it is therefore assumed that the costs of these measures are reflected in current land values.

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<sup>7</sup> Strategic Flood Risk Assessment (SFRA) 2

The extent to which measures might be required to address fluvial flooding in the area are currently unknown and we have therefore included an allowance of £3m in this study for works to mitigate fluvial flooding.

### 3.3.3 *Control of Major Accident Hazards (COMAH)*

The study area includes a number of industrial and infrastructure installations that use and/or store large quantities of hazardous substances, the use of which is regulated under COMAH Regulations. The largest of the Inner Consultation Zones is located around the National Grid's Liquefied Natural Gas (LNG) storage facility (one of only three such facilities in the UK), which lies close to the M49 to the east of the area. The HSE is a statutory consultee on planned development within 'Inner Consultation Zones' and while it cannot prohibit development it can advise against it and local authorities need to have regard to that advice. In order to maximise the land available for development relocation of the National Grid's facility has been considered. However, given the investment to date, the planned scale of investment by LNG over the years 2011/12 and 2012/13 (at £6 million and £5.9 million respectively), and the likely cost of relocating the facility, it is not considered feasible or necessary to include proposals for its relocation as part of the Outline Development Strategy at this point in time.

### 3.3.4 *Ecology*

The on-going loss of habitats at Avonmouth Severnside requires mitigation for existing and committed development, as well as any further development. Failure to provide sufficient areas of mitigation could result in a breach of the Habitat Regulations and harm to a valuable ecological asset.

A recent study has suggested a number of areas within Avonmouth Severnside that could be used to mitigate the ecological effects of existing and committed development. Five sites (with a total area of about 229 ha) within and in proximity to the study area were identified as having potential for mitigation as follows:

- Site A Fields North of M4 Bridge : 14 ha
- Site B Fields at Whitehouse Farm: 25 ha
- Site C Hallen Marsh: 112 ha
- Site D Berwick Farm Landfill: 30 ha
- Site E Former Northwick Landfill Site: 10 ha
- Site F WAP1 Ecological Refuge Area: 38 ha

Not all parts of each site are required. Whilst land within the central part of the area (site C) is identified as particularly suitable for mitigation due to its size and sight lines, from an economic development perspective, sites A, B, D and E would be preferable for mitigation. Site C is the largest piece of undeveloped land and is within the ownership of Bristol City Council, which offers significant opportunities for influencing development on the site and within the area

more generally. Mitigation on site F is likely to be required under the terms of a previous planning permission.

About 133 ha of land is required to provide mitigation for the existing and planned development within the study area, of which 38 ha may be provided under the terms of a planning obligation, leaving a total of 95 ha outstanding.

Bringing forward additional greenfield land in order to fully realise the potential of the area will require additional mitigation. It is likely that a ratio of 1:0.95 ha of development to mitigation area would be required and that the optimum solution would be to incorporate as much of the area required in as few sites as possible within or in proximity to Avonmouth Severnside.

With some minor extensions, the sites A to F are likely to be sufficient in area to accommodate all of the ecological mitigation that will be required for the existing and planned development and an additional 62.7 ha of additional greenfield land (of which about 46 ha would be in area C).

### 3.3.5 *Transport improvements*

Excellent transport networks are an acknowledged driver for delivering economic development and regeneration, while poor infrastructure can, and often does, have a highly detrimental impact on a site's attractiveness to the market. The Avonmouth Severnside area is highly regarded for its strategic location, enabling occupiers to service customers in other parts of the South West, the Midlands, the South East and the South of the country. It is clearly critical for future economic development that the transport infrastructure of Avonmouth Severnside is, and is seen to be, fit for purpose and reinforces the strategic advantages of the area. Consequently, in accordance with current development plan policies, consideration has been given to a new M49 junction (and associated links to it) to serve the area.

Development in the area over the last decade has, as noted, been strong especially for large warehouse and distribution users. However, marketing material issued by developers in the study area has for some time referred to the long standing proposals to develop a new M49 junction which is thought to have influenced some investor/occupier decisions.

A new M49 junction may also have positive amenity benefits for some communities that live adjacent to some of the existing transport routes into and out of the area.

This study relies on the reported work that has previously been undertaken by the Councils that indicated that a new M49 junction is needed to mitigate the transport impacts of increasing development in the study area. Furthermore, in terms of economic development potential, it is likely that a new M49 junction could have significant benefits by facilitating an accelerating pace of development and potentially attracting higher value uses around the junction to diversify the area's industrial structure (subject to such uses being acceptable in planning policy terms). Such impacts could help to ensure the delivery of maximum economic benefits. Improving the transport infrastructure by providing a new junction therefore needs to be considered as part of an integrated development strategy for the area.

### 3.3.6 Other constraints

As well as the above constraints specific developments will need to have regard to other potential constraints such as contamination, utilities capacity, the need for Green Infrastructure and archaeology/heritage that might affect parts or all of the study area. However, it is considered that in most cases these can be managed on a case-by-case basis.

## 3.4 Avonmouth Severnside Outline Development Strategy

A joint statement has been developed by the two Councils that sets out the vision for the area to 2050, as follows:

*'An internationally significant industrial location, home to world-class companies operating in key sectors which are at the heart of the UK's economic future, including advanced engineering, green and environmental technologies, tidal power and transport and logistics.*

*Business will be drawn by investment opportunities and a reputation for innovation, competitiveness and superb infrastructure, including a deep-water container terminal providing direct access to road and rail networks from the closest port to the UK population - with 45 million people living within 300 kilometres.*

*Local people will benefit from employment opportunities through established pathways, linking business, agencies, universities, schools and colleges working together to provide a highly skilled, adaptable workforce that maximises the benefits of economic growth and inclusion.*

*Through a positive approach to development planning and public investment in infrastructure that will unlock the area's full potential, Avonmouth Severnside will provide up to 20,000 new jobs over the longer term, helping to drive forward Bristol and the West of England as the UK's most competitive city region, generating a wide range of jobs and significant local economic benefits.'*

By working together, the public sector, land owners and businesses can address the issues that constrain the area from realising its full potential.

The Outline Development Strategy identifies the key infrastructure and other supporting interventions that are needed to realise the vision. Taking into account the challenges and opportunities, there are five priorities that will form both the immediate and long-term focus of the Strategy. Delivering these priority investments will be critical to maintaining momentum and in achieving the wider goal of the sustainable economic growth. Table 3.1 sets out details of the proposed priority investments.

Table 3.1: Avonmouth Severnside Outline Development Strategy - Priority Investments	
Overall Management of proposed programme	Creation of a team of three staff comprising project management and support functions. Establishment of a Board or Steering Group to oversee implementation of the Strategy.
Economic development programme	<p><b>Establishment of a Development Strategy Sub-Group with responsibility for Economic Development to include the Councils, land owners/occupiers at Avonmouth Severnside, businesses, the LEP, Community Groups, and skills development organisations. The group to:</b></p> <ul style="list-style-type: none"> <li>• Confirm the Vision for the area – a clear vision will assist in gaining widespread acceptance, and this will need to be supported by objectives that are specific, measurable, achievable, realistic, and time-related.</li> <li>• Produce an Economic Development Plan for Avonmouth Severnside including: <ul style="list-style-type: none"> <li>• target sectors – the area is home to a number of growth sectors including environmental technologies and services, which should be a particular focus for support. This would include the promotion of specific opportunities including vertical and horizontal supply chain and product linkages, as well as demonstration projects. Consideration should be given to the creation of an environment technology zone and developing a district heating network;</li> <li>• inward/mobile investment – the attraction of inward/mobile investment will form an important part of the Plan;</li> <li>• business support - services to assist business needs, including developing activities through local organisations (such as Business West) and synergy with the national Business Link organisation will help to strengthen develop of strategy and growth initiatives; and local skills development, local labour initiatives, and supply chain development will be important features of supply-side aspects of the Plan;</li> <li>• skills development – having an effective labour market is essential for a healthy economy. Ensuring there is sufficient supply of labour, with the right skills, attitudes and ambition - both within the current workforce and in the future - to meet the demand for employers and the economy of the area is essential to attract inward investment, protect and grow key sectors, increase innovation and drive up enterprise. This will form an important part of Plan development;</li> <li>• local labour initiatives – initiatives, such as using local labour in construction and other sectors are important means to increase the use of the workforce of the area, and have already been used successfully. Local labour agreements are now widely accepted and are common practice with many private developers and contractors, contributing not only to development activity, but also to reducing crime, increasing community goodwill, and supply chain development. Further opportunities for such initiatives will assist development of the growth strategy; and</li> <li>• supply chain development – improved co-operation and collaboration between producers, processors and others, can leading to more effective and sustainable supply chains. This can assist in strengthening the local</li> </ul> </li> </ul>

	<p>economy as well as bringing other benefits such as environmental sustainability. It is anticipated that support to supply chain development will be an important component of the strategy.</p> <ul style="list-style-type: none"> <li>• Produce a funding and delivery plan and implement the plan – the Plan will need to be adequately funded and be deliverable, both key issues in ensuring its success.</li> </ul>
<p><b>Flood defences</b></p>	<p><b>Establishment of a Development Strategy Sub-Group with responsibility for Flood Defences to include the Environment Agency, Councils, Port of Bristol, Lower Severn Internal Drainage Board, engineering experts, and land owners at Avonmouth Severnside. The group to:</b></p> <ul style="list-style-type: none"> <li>• Manage production of a technical study of the options (including phasing) and full engineering requirements for construction and maintenance of a 10.74 AOD tidal defence. This will build upon SFRA 2 and should include a detailed cost analysis of the preferred tidal defence strategy;</li> <li>• Manage production of a technical study to assess scale of fluvial flooding risk and costs and benefits of options for addressing the risk. This will involve modelling the impact of developing 57/58 permission sites on fluvial flood risk across the remainder of the study area, and should identify options to mitigate the impact of future development;</li> <li>• Develop a funding strategy for construction and maintenance of tidal and fluvial flood defences, developing recommendations set out in the WYG technical report;</li> <li>• Further develop the delivery strategy outlined in this and the WYG technical report to underpin the preparation and implementation of a detailed procurement and delivery plan for the proposed flood defences;</li> <li>• Work with relevant partners to promote the delivery of flood defence infrastructure through: <ul style="list-style-type: none"> <li>• Liaison with the Port of Bristol to ensure engineering and fitness for purpose with the Port’s tidal flood defence plans. Bristol Port’s proposals for the Deep Sea Container Terminal are known, but agreement will be required with the Port about improvements to other areas within their control (such as lock gates);</li> <li>• Liaison with the Ecology Group to ensure that the flood defence strategy complements ecology protection and enhancement measures;</li> <li>• Managing communications and information to ensure accurate and timely information to potential developers;</li> <li>• Establishing existing tidal defence ownerships and agree on-going maintenance responsibilities for the tidal defence with identified partners; and</li> <li>• Input into work being undertaken by other bodies and interest groups including the Severn Estuary Flood Risk Management Strategy currently being prepared by the Environment Agency.</li> </ul> </li> </ul>
<p><b>Ecological mitigation</b></p>	<p><b>Establishment of a Development Strategy Sub-Group with responsibility for Ecology to include the Councils, ecology interest groups and experts and land owners at Avonmouth Severnside. The group to:</b></p> <ul style="list-style-type: none"> <li>• Manage a detailed study of mitigation requirements to detail the quantum of</li> </ul>

	<p>land required, type and location for:</p> <ul style="list-style-type: none"> <li>• land already developed;</li> <li>• land to be developed;</li> <li>• transport infrastructure;</li> <li>• tidal flood defence;</li> <li>• fluvial flood defences;</li> <li>• green infrastructure; and</li> <li>• landscaping.</li> </ul> <p>This should build on the Cresswell study commissioned by the Councils, setting out options for mitigating the impacts of development in the area on its ecology.</p> <ul style="list-style-type: none"> <li>• Manage a site identification, suitability and site preparation assessment to ensure sites identified are capable of meeting ecology protection and enhancement needs;</li> <li>• Liaise with land owners (on and off-site) to establish their willingness to sell or lease sites required for effective mitigation;</li> <li>• Manage a detailed assessment of the costs for ecology mitigation reflecting discussions in relation to land purchasing/leasing as well as site preparation works, providing a cost plan to underpin a funding strategy;</li> <li>• Produce a delivery strategy to underpin a detailed procurement and delivery plan for the identified ecological mitigation works;</li> <li>• Manage communications and information to ensure accurate and timely information to potential developers and others; and</li> <li>• Input into studies and reports by other bodies and interest groups.</li> </ul>
<p><b>Transport infrastructure</b></p>	<p><b>Establishment of a Development Strategy Sub-Group with responsibility for Transport to include the Councils, land owners at Avonmouth and Severnside, Highway Agency and local Community Groups. The group to:</b></p> <ul style="list-style-type: none"> <li>• Manage production of a full cost benefit analysis for a new junction and link road(s) to include the identification of options for the junction location and associated infrastructure;</li> <li>• Manage production of transport improvement study (non-Motorway) to include traffic management on rural road routes, measures to improve public transport, use of rail, cycling and walking;</li> <li>• Manage production of a funding strategy for the new motorway junction, associated link roads, rural road routes and other traffic improvement measures; and</li> <li>• Formulate and implement a procurement and delivery plan for the proposed transport infrastructure</li> </ul>

## 4 Costs, Benefits and Value for Money

### 4.1 Introduction

This section assesses the potential costs and benefits of the Outline Development Strategy and considers its value for money.

### 4.2 Costs

This study estimates that the capital costs (that are subject to a range of assumptions and that may vary) of delivering the key infrastructure works proposed to address constraints across the Avonmouth Severnside area, and thus release sites, are as summarised in Table 4.1.

<b>Infrastructure works</b>	<b>Cost (£m)</b>
Flood defence works	59.8
Transport infrastructure works	42.0
Ecological mitigation works <sup>8</sup>	5.0
<b>All works</b>	<b>106.8</b>

Full details of these capital costs and associated assumptions are detailed in the WYG report. Alternative lower cost models are understood to be emerging in respect of the works proposed to address identified constraints and should be given due consideration.

Alongside these capital costs, an allowance will need to be made for costs associated with implementing the Outline Development Strategy for the area. A small project management team will need to be put in place, tasked to develop proposals for infrastructure works, promote the development of identified sectors and lead liaison with key partners including Bristol Port. A more detailed description of the roles of the management team is set out in Section 5.4.

Initial provision of £150,000 per annum should be made for a three person team comprising project management and appropriate technical and administrative support functions. This provision should be reviewed on an ongoing basis to ensure suitable progress is being made towards agreed partner development objectives.

### 4.3 Benefits

#### 4.3.1 Overview

The analysis demonstrates that development of sites across Avonmouth Severnside - including sites consented under the 57/58 planning permission, previously developed land and other

<sup>8</sup> Note: an allowance has been included for agricultural land values, although the actual price paid for land could be significantly higher if hope/accommodation value is included.

greenfield development sites - is likely to result in significant economic benefits for the local area. A range of use scenarios have been tested to provide an indication of the likely range of benefits that could be expected to arise from development, reflecting the differential impact associated with manufacturing and distribution activities. All scenarios assume that 5% of total floorspace will be developed for Sui Generis uses, principally associated with utilities and energy. The split between other uses across the remaining floorspace is assumed to be as follows:

- Scenario 1 – 100% of remainder for B8;
- Scenario 2 – 75% of remainder for B8, 25% for B2;
- Scenario 3 – 50% of remainder for B8, 50% for B2.

For each of these scenarios the potential scale of the benefits has been estimated, focusing on employment and GVA, over a 40 year period. Scenario 3 could, for example, reflect the positive impact associated with the proposed economic development programme, which would target higher value added B2 activities.

#### 4.3.2 Gross employment

The assessment of gross employment - the number of gross direct permanent jobs - generated under each scenario has been based on the expected quantum of future employment floorspace delivered across the whole Avonmouth Severnside area. The profile set out in Table 4.2 highlights the amount of new floorspace by use class for each scenario, including sites consented under the 57/58 permission but excluding floorspace that is currently under development or committed (for instance, under the Central Park Scheme). On this basis, the quantum of floorspace set out in Table 4.2 is somewhat lower than the total development capacity of the sites, as outlined in Table 2.8.

<b>Table 4.2: Employment floorspace (sq m)</b>			
	<b>Scenario 1</b>	<b>Scenario 2</b>	<b>Scenario 3</b>
B2 Manufacturing	0	275,000	550,000
B8 Logistics and distribution	1,099,000	825,000	550,000
Sui Generis	58,000	58,000	58,000
<b>Total</b>	<b>1,157,000</b>	<b>1,157,000</b>	<b>1,157,000</b>

\* Figures may not sum due to rounding

Employment density ratios consistent with those set out within the guidance produced for the Homes and Communities Agency (HCA)<sup>9</sup> have been used to calculate the gross direct employment impact associated with B2 and B8 floorspace. The assumptions adopted are as follows:

- B2 manufacturing – employment density of 36 sq m (GEA) per full-time equivalent employee;

<sup>9</sup> HCA (2010), *Employment Densities Guide, 2<sup>nd</sup> Edition*.

- B8 distribution – employment density of 80 sq m (GEA) per full-time equivalent employee;

The employment density ratio assumed for Sui Generis activities is 250 sq m per full-time equivalent employee. This is broadly consistent with a number of recent utilities and energy projects, including Energy from Waste plants.<sup>10</sup>

Table 4.3 presents a summary of the estimated gross direct jobs created under each scenario. Reflecting the low employment density associated with B8 activities, levels of employment forecast under scenario 1 are, at 13,970, are substantially lower than under scenario 2. Scenario 3, which has the highest proportion of assumed B2 floorspace, has the capacity to deliver the highest number of gross jobs, at 22,370.

<b>Table 4.3: Gross direct employment accommodated across Avonmouth Severnside</b>			
<b>Scenario</b>	<b>Scenario 1</b>	<b>Scenario 2</b>	<b>Scenario 3</b>
B2 Manufacturing	0	7,640	15,270
B8 Logistics and distribution	13,740	10,310	6,870
Sui Generis	230	230	230
<b>Total</b>	<b>13,970</b>	<b>18,180</b>	<b>22,370</b>

\* Note: Figures may not sum due to rounding

Based on the total level of gross direct employment anticipated under each scenario, Table 4.4 sets out an employment creation profile, reflecting the uptake assumptions set out in Table 2.2.

<b>Table 4.4: Cumulative profile of gross direct employment</b>			
<b>Scenario</b>	<b>Scenario 1</b>	<b>Scenario 2</b>	<b>Scenario 3</b>
To 2020	5,610	7,290	8,980
To 2030	8,400	10,920	13,440
To 2040	11,190	14,550	17,910
To 2050	13,970	18,180	22,370

As highlighted in Table 4.4, reflecting development assumptions, it is anticipated that the full gross employment effects will be realised over 40 years.

#### 4.3.3 Net additional employment

In assessing the impact of each scenario the key issue to be addressed is the additionality of future development activity – the extent to which activity takes place at all, on a larger scale, earlier or within a specific designated area or target group as a result of implementing the development strategy for the area. In order to assess the additionality of this intervention, the following factors will need to be considered:

- *leakage* – the proportion of outputs that benefit those outside of the project’s target area or group. An analysis of 2001 census data indicates that 86% of people working within

<sup>10</sup> See, for example, Mercia EnviRecover Energy from Waste facility Economic Impact Assessment, 2011

wards covering the Avonmouth Severnside lived within the wider West of England LEP Area. On this basis a rate of 14% has been applied;

- *displacement* – the proportion of project outputs accounted for by reduced outputs elsewhere in the target area. Displacement may occur in both the factor and product markets<sup>11</sup>. A level of displacement of 29% has been assumed, based upon national Business Innovation and Skills (BIS) benchmarks;
- *multiplier effects*<sup>12</sup> – further economic activity associated with additional local income and local supplier purchases. A composite multiplier of 1.39 has been applied in accordance with national benchmarks; and
- *deadweight* – outputs which would have occurred without the project. This is assessed through the reference case (i.e. the do minimum option).

Under the deadweight scenario it has been assumed that sites consented under the 1957/58 permission would come forward for development in the absence of investment to address access and other constraints. It is assumed that almost 615,000 sq m of employment floorspace would be developed across these sites under the reference case, accommodating between 7,430 and 11,890 gross jobs depending on the mix of activities.

The approach to assessing the net additional impact of a project, taking into account the above adjustments, is shown diagrammatically in Figure 4.1.

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<sup>11</sup> Product market displacement arises where the output of a supported activity takes market share from local firms producing the same good or service. In the case of factor market displacement a support activity uses locally scarce factors of production (e.g. skilled labour or land) or bids up factor prices.

<sup>12</sup> For analytical purposes two types of multiplier can be identified:

- a supply linkage multiplier - due to purchases made as a result of the project and further purchases associated with linked firms along the supply chain. In the absence of a fully articulated model of the local economy these effects are difficult to trace. However, multipliers derived through empirical research in previous studies can be used to approximate these impacts. Alternatively, estimates of the local content of purchases can be used to calculate the local supply linkage multiplier effects, assuming the proportion of expenditure net of non-recoverable indirect taxes incurred on local goods and services is similar throughout the supply chain.
- an income multiplier - associated with local expenditure as a result of those who derive incomes from the direct and supply linkage impacts of the project. Again, precise estimates are difficult to calculate. As a proxy, the results of previous research can be used or estimates can be calculated on the basis of local consumption patterns through the local economy. Again the assumption is that behaviour is similar at each point in the supply chain.

A number of impact studies have also identified a longer-term development multiplier associated with the retention of expenditure and population in an area.

**Figure 4.1: Net additional impact**



Table 4.5 summarises the estimated net additional permanent employment impact of each scenario after allowing for leakage, displacement, multiplier effects and deadweight.

Table 4.5: Net additional employment			
	Scenario 1	Scenario 2	Scenario 3
To 2020	1,820	2,370	2,920
To 2030	2,850	3,710	4,560
To 2040	4,090	5,320	6,550
To 2050	5,550	7,220	8,890

#### 4.3.4 Net additional GVA

An assessment has been undertaken of the net additional GVA generated has been based on the following assumptions:

- the GVA impact associated with each job created is assumed to persist for 10 years<sup>13</sup>;
- a 3.5% discount rate has been applied in line with HM Treasury appraisal guidance;

<sup>13</sup> BIS (2009), *RDA Evaluation: Practical Guidance on Implementing the Impact Evaluation Framework*.

- an average GVA per employee figure of £60,000 for manufacturing, £56,000 for distribution and £46,000 for other uses.

Based upon these assumptions, a profile of the net additional discounted cumulative GVA for each scenario is set out in Table 4.6.

Table 4.6: Net additional discounted cumulative GVA (£ million)				
	Year 5	Year 10	Year 20	Total
Scenario 1	192	528	964	1,416
Scenario 2	256	706	1,288	1,960
Scenario 3	321	884	1,613	2,505

#### 4.4 Value for money

Based on the assessment of costs and benefits, Table 4.7 sets out the value for money associated with each of the scenarios.

Table 4.7: Impacts, VFM and ROI			
	Scenario 1	Scenario 2	Scenario 3
<b>Costs</b>			
Transport, flood and ecology (£ million)	£107.25	£107.25	£107.25
<b>Benefits</b>			
Gross employment	13,970	18,170	22,370
Net additional employment	5,550	7,220	8,890
Cumulative discounted net additional GVA (£m)	£1,416	£1,960	£2,505
<b>Value for Money</b>			
Gross cost per gross job - Flood, ecology & transport	£7,680	£5,900	£4,790
Gross cost per net job - Flood, ecology & transport	£19,320	£14,860	£12,060
Return on investment - Flood, ecology & transport	13.2:1	18.3:1	23.4:1

Based on a capital cost of £106.8 million and an operating cost of £450,000 (over three years), analysis indicates that all three scenarios deliver good value for money against established benchmarks for physical regeneration projects. Scenario 1, which assumes that all new accommodation will be used for B8 distribution uses, delivers a gross cost per net additional job of £19,320 and a return on investment of 13.2:1. This return on investment is above the benchmark of 8:1 for property related regeneration projects identified through the national evaluation of regional development agencies. Other scenarios, profiling a higher proportion of B2 manufacturing activity, deliver enhanced value for money.

## 4.5 Risks

### 4.5.1 Overview

An assessment of potential risks of Avonmouth Severnside has been undertaken taking into account mitigation and contingency measures. The analysis has been informed by the guidance contained within HM Treasury’s Green Book. It considers key risk areas that may affect the successful delivery of the Strategy, establishing the overall severity of each risk, based upon a judgment of the likelihood and potential impact. The full risk assessment is presented at Appendix C.

### 4.5.2 Risk areas

A risk scoping process identified 52 potentially significant risks that may affect the successful delivery of the Strategy and its key interventions. The risks have been sub-divided into the following types: procurement, project specific, client specific, environment and external influences. An assessment of the severity of each risk has been carried out based upon a judgment of impact and probability.

Against each risk, a rating (and score) has been given to the probability of the risk arising – ranging from very high (a maximum score of 5) to very low (a score of 1). The impact of each risk has also been assessed, using the same rating (and scoring) range as has been used for probability (i.e. a range of 1-5). The overall risk score is calculated by multiplying the probability score by the impact score (giving a maximum score of 25, representing an extreme risk). The scores are then banded low, medium or high to provide an indication of the overall rating of each risk (see Figure 4.2).

**Figure 4.2: Risk score matrix**



Table 4.8 sets out a summary of unmitigated risk for each of the options. Individual risk elements identified within the analysis have been grouped into broad risk areas. The average combined score provides an indication of the relative risk level under each option. No allowance has been made for mitigating factors that are already in place or any future risk management measures that could be implemented at this stage of the analysis. The risks scores set out in Table 4.8 are therefore classed as unmitigated and represent the overall level of risk at the start of the development stage.

Table 4.8: Unmitigated average risk scores for broad risk areas	
Risk area	Score
Procurement risks	10.0
Project specific risks	11.3
Client specific risks	12.0
Environment risks	10.4
External influences	11.5
<b>Overall</b>	<b>10.8</b>

On the basis of this assessment and at this stage, there is considered to be an overall medium level of risk, although areas of high risk have been identified under the environment and external issues.

#### 4.5.3 Risk mitigation

A range of mitigation and management measures have been outlined in relation to key risk areas identified through the assessment which should form the basis of a risk management strategy. Proposed measures include:

- **establishing clear legal agreements** and a robust selection and procurement strategy;
- **testing the Outline Development Strategy proposals** to ensure appropriate levels of viability and quality;
- **establishing a robust case for key project specific environmental issues**, in particular flood risk, transport links, ecology, and archaeology;
- **ongoing engagement with the stakeholders, partners and funders**, to ensure that the project benefits from appropriate support moving forwards and that appropriate funding can be secured; and
- **ongoing market monitoring and assessment** to ensure that the programme reflects wider economic conditions, in particular in terms of market demand.

Based upon the successful implementation of the proposed measures, the mitigated risk scores for each risk area are set out in Table 4.9.

Table 4.9: Mitigated risk scores for broad risk areas	
Risk area	Mitigated risk score
Procurement risks	6.0
Project specific risks	6.8
Client specific risks	6.0
Environment risks	6.9
External influences	8.3
<b>Overall</b>	<b>6.9</b>

On the basis of this assessment, it is anticipated that the proposed mitigation measures would reduce the level of risk to the public sector. Through the implementation of these measures, the level of risk could be considered low to medium. However, it should be noted that a number of issues – particularly flood risk, transport links, ecology, archaeology and funding – remain a significant risk in spite of the proposed mitigation measures.

## 5 Recommendations for Delivering the Strategy

### 5.1 Introduction

This Section reviews the potential funding opportunities for the infrastructure investments proposed in the Outline Development Strategy. It provides a potential, illustrative funding package and also sets out proposed delivery arrangements.

### 5.2 Funding opportunities

#### 5.2.1 Overview

In addition to major planning reform, the Coalition Government is utilising and developing various financial instruments to stimulate development. These include:

- Local Asset Backed Vehicles (LABV) - a long-term partnership or joint venture between the public sector and a private sector partner with the value of the assets used by the LABV to raise funds to enable investment and regeneration.
- Community Infrastructure Levy (CIL) - CIL offers the opportunity to raise a levy from development to provide local and sub-regional infrastructure necessary to support growth. There may also, under certain circumstances, be the opportunity to secure funding through Section 106 where planning consent is required for development;
- Prudential borrowing - The Local Government Act 2003 allows Prudential Borrowing having regard to the framework which requires local authorities to demonstrate that its capital expenditure is prudent, affordable and sustainable;
- Regional Growth Fund (RGF) - RGF supports projects and programmes that lever private sector investment creating economic growth and sustainable employment. In December 2011, the Government announced that a further £1 billion would be made available to RGF and that the next bidding round would open in February 2012;
- New Homes Bonus - introduced in April 2011, and will match fund the additional council tax raised for new homes and empty properties brought back into use, with an additional amount for affordable homes, for the following six years;
- Retention of business rates - the subject of recent consultation;
- Tax Increment Financing (TIF) - also subject to recent consultation;
- The 'Growing Places' Fund - announced in September 2011 and intended to kick-start developments that are currently stalled and deliver key infrastructure in order to create jobs; and
- The West of England Revolving Infrastructure Fund (RIF) - established by the West of England LEP, this fund combines £39.8 million of RGF with a £11.5 million Growing Places

allocation to unlock development opportunities by addressing infrastructure constraints;  
and

- The Coastal Communities Fund – this national fund has been established to support economic development within coastal communities, including those located on the estuarine foreshore.

Opportunities associated with each of these financial instruments are described in more detail below.

### *5.2.2 Local Asset Based Vehicles (LABV)*

LABVs can facilitate and bring forward major regeneration schemes by maximising opportunities to unlock value from an authority's surplus, redundant or operational assets. It can combine public sector powers such as planning and compulsory purchase with private sector asset management, development and management skills, thereby utilising private sector capital and financial expertise for community benefit. A strategic approach can be developed to delivering a pipeline of sustainable regeneration and community projects through long-term partnership. In addition, it can reduce the burden of regulatory compliance through asset transfer to the LABV.

Such an approach at Avonmouth Severnside would utilise in particular Bristol City Council's land assets in the area.

### *5.2.3 Community Infrastructure Levy (CIL)*

The CIL is a levy requiring developers to make a payment to the Council based on the size of their development in square metres. The Council can then use the proceeds of the Levy to provide local and sub-regional infrastructure necessary to support growth, for example construction of roads and flood defences. In the years following the introduction of a CIL, Section 106 obligations would only be used to fund mitigation specific to particular development proposals. The amount of CIL payable will be determined at the point of granting planning permission.

While CIL would potentially be appropriate to contribute to the costs of infrastructure at Avonmouth Severnside, Bristol has published a draft charging schedule that suggests a zero rate for B2 and B8 development. It is therefore unlikely that development within the study area will generate any significant CIL funding. Bristol Council could, however, choose to prioritise CIL funding from outside the study area to fund works at Avonmouth Severnside. South Gloucestershire Council intends to bring forward its CIL proposals following the adoption of the Core Strategy, which is anticipated to be Summer 2012. Initial consultation and viability work will commence in Spring 2012.

#### *5.2.4 Prudential borrowing*

Prudential borrowing enables local authorities to borrow from the Public Works Loans Board. Bristol City Council has previously made use of these arrangements, for example in 2009/10 its prudential borrowing was £14.6 million, fully utilising its borrowing allocation.

#### *5.2.5 Regional Growth Fund (RGF)*

The RGF has a widespread eligibility, including the opportunity to support some basic infrastructure which as part of a wider investment unlocks specific business investments such as interventions to improve basic services such as energy and transport or land remediation and improvements to the physical environment. The RGF aims particularly to help those areas and communities currently dependent on the public sector to make the transition to sustainable private sector-led growth and prosperity. Some 50 projects were approved in Round 1 including some infrastructure projects, and a further 119 projects in Round 2. The Government has announced that a further £1 billion is to be made available for RGF.

The West of England LEP area has been awarded £39.8 million after a successful bid to the RGF to establish a Revolving Infrastructure Fund (RIF), with an additional allocation of £11.5 million through the Growing Places Fund. The RIF has been established to provide targeted investment to address constraints associated with transport, utilities and flood defence infrastructure, unlocking opportunities for employment led development and enabling the value of development to be realised. The scheme will not provide gap funding but will rather address cash flow constraints.

Expressions of interest are currently being sought by the LEP for the first RIF award round which opens in February 2012, with awards to be announced in June. Under the criteria for the fund, schemes must be 'ready to go' with planning consent and other appropriate delivery mechanisms in place. Proposals for infrastructure development at Avonmouth Severnside are some years away from this stage. However, as a revolving fund, a share in any value released through the first funding round will be recycled back to the fund to enable further development. As such, funding may be available in subsequent award rounds subject to establishing an effective recycling mechanism.

#### *5.2.6 New Homes Bonus*

New Homes Bonus scheme, which commenced in April 2011, provides local authorities with additional resources equal to the national average for the council tax band on each additional property (with an enhancement for affordable homes) and paid for the following six years as a non-ringfenced grant. In 2011/12, for example, Bristol has been awarded £2.28 million and South Gloucestershire £0.88 million. As a result, a share of such funding could be applied to Avonmouth Severnside if this was considered appropriate by each local authority.

#### *5.2.7 Retention of business rates and Tax Increment Financing (TIF)*

The Coalition Government's consultation on business rates retention (July 2011) sought views on proposals to change the way local government is funded. National Non-Domestic Rates,

commonly known as business rates, are collected by local authorities from businesses in their areas, but they are currently paid into a central pool to be redistributed as part of formula grant. The Government wants to change the current system by enabling councils to keep a share of the growth in business rates in their area. The proposed formula provides a mechanism to ensure that a balance would be provided between areas which would have a much larger amount of retained rates than they need to deliver their services compared with others which would have much less than they need. The proposed formula would involve a number of components including establishing a baseline, setting tariffs and top-ups, recouping a share of disproportionate benefits (the 'levy'), adjusting for revaluation, and system 'resetting'.

The proposals include an incentive effect, under which authorities would be able to keep a 'significant proportion' of increases in their business rates.

In addition, the proposals include an indication that all of the uplift in business rate revenues within an Enterprise Zone area can be retained by the relevant LEP and will not be taken into account in terms of the formula for calculating the levy, top-ups, or tariff. Revenues which are generated can be applied throughout the LEP area. The Bristol Enterprise Zone, which is one of 21 in England, has been designated on 70 ha of land in the area known as Temple Quarter, adjacent to Bristol Temple Meads railway station.

Further to this, Avonmouth Severnside is one of five areas within the South West LEP area to have been designated as an 'Enterprise Area'. An Enterprise Area is a local, non-statutory designation which does not benefit from the planning and taxation incentives applied within Enterprise Zones.

The consultation paper proposes that retained business rates could further be used to lever additional borrowing using Tax Increment Financing (TIF). Local retention of business rates, it suggests, could fall under the prudential system, and allow local authorities to borrow for capital projects against future predicted retained business rates, provided that they can afford to service the costs of borrowing out of revenue resources. The Government suggests that local authorities might either have full delegation to determine for themselves whether to invest in a TIF scheme, or be subject to central government consent.

### 5.2.8 *The 'Growing Places' Fund*

Chief Secretary to the Treasury Danny Alexander announced the £500 million 'Growing Places' infrastructure fund at the Liberal Democrat party conference in September 2011. He said that it would kick-start developments that are currently stalled as well as deliver key infrastructure and create jobs. In addition, he also said that the fund would provide flexibility to local areas to recycle funding for other projects once development is completed. This fund will be made available through LEPs during 2011/12, with £11.3 million allocated to the West of England LEP in this round. As noted above, the West of England LEP has 'matched' its Growing Places Fund allocation with RGF to create the RIF. As a revolving fund, provision would need to be made for the repayment of any funding received.

### 5.2.9 *The Coastal Communities Fund*

Announced in July 2011, the Government has committed to £23.7 million to support this Fund in 2012/13 (50% of revenue generated by the Crown Estates marine assets). The Fund is designed to support the economic development of coastal communities by promoting sustainable economic growth and jobs. The Fund provides support for both capital projects and revenue projects. In particular, the Fund will support activities that manage and adapt a coastal area to flood and coastal erosion risk where this supports local economic development. All coastal communities are eligible for funding where they are located within a local authority whose boundaries include UK foreshore, including those whose boundaries only include estuarine foreshore.

## 5.3 Funding the Strategy

The assessment of project costs by WYG has indicated a total cost for infrastructure (flood, ecology and highways) of up to £106.8 million. WYG are of the view that these infrastructure works could 'unlock' sites, with the development of these then considered to be viable assuming that land costs are excluded on the basis of development by existing landowners. Funding is therefore required to meet the identified costs of infrastructure.

Of the potential funding opportunities identified, the most appropriate in relation to the programme would appear, at this stage, to be TIF, based on the retention of rates generated through business growth in Avonmouth Severnside, together with other public and, where available, private funding.

An indicative model has been prepared as part of this study to demonstrate the potential increase in rates revenue that may be generated by the project over a period of 25 years based on the Coalition Government's consultation proposals. This suggests, based on a range of assumptions, that some £160 million in additional rates may be generated and that this could be fully retained by the authorities. This would be sufficient to support maximum day one borrowing of £73 million. It has further been assumed that a TIF-type approach is taken whereby forecast retained rates are used as collateral against which the authorities can borrow and then when received they are used to service debt and capital repayments. Significant, further work will be required to develop and assess the feasibility of this type of approach.

On the basis of assumptions made in relation to retained rates and TIF, the balance of required funding would be £33.8 million. This would need to be met from other sources of funding, such as the RIF, CIL from across the local authorities' areas and, where available, private funding.

Table 5.1 summarises the indicative funding illustration. Dependent upon the funding scenario, infrastructure funding of £106.8 million could require total cash costs in excess of £200 million over a total of £25 years.

<b>Funding Source</b>	<b>Funding (£m)</b>
TIF based on retention of rates generated through business growth in Avonmouth Severnside <sup>14</sup>	73.0
Other funding (e.g. RIF, CIL, private sector, etc)	33.8
<b>Total</b>	<b>106.8</b>

It should be emphasised that this illustration provides only one of a significant number of alternative funding scenarios for the programme. However, it is indicative of a possible funding mix. It is probable nonetheless that the proposed new funding mechanisms will need to be approved by Government in order to achieve a successful funding package in view of the scale of funding required in the absence of major advanced investment. In any event, detailed consideration and modelling of alternative funding options (including sources and timescales) will be required in order to ensure that the most appropriate package is achieved.

## 5.4 Governance and management

### 5.4.1 Overview

Appropriate governance and management arrangements will need to be put in place in order to realise the area's potential as a major employment location and to address the constraints relating to ecology, flooding and transport. Among the requirements are to:

- embed the concept within the Core Strategy and Local Plan;
- develop and gain approval to a long-term 'Masterplan' for the area;
- develop and agree a plan for infrastructure investment;
- establish a detailed funding strategy;
- consider and establish a procurement strategy, including joint ventures if appropriate;
- establish arrangements with UK Trade and Investment (UKTI) in relation to inward investment opportunities;
- undertake an implementation strategy to secure development and investment; and
- develop mitigation measures for the identified risks, particularly around the infrastructure provision.

### 5.4.2 Delivery arrangements

Strategy development and implementation for a project as significant and complex as Avonmouth Severnside will require appropriate governance arrangements. It is envisaged that a

<sup>14</sup> The total cash cost to the authorities of funding up-front infrastructure is estimated to be in the order of £160 million, reflecting the Public Works Loan Board interest rate for new loans (repayment at maturity) of 5.5% over a 25 year period.

project Board or Steering Group will be established at the outset including local authority, public sector partner, and public and private sector land ownership interests. It will also include representation by the West of England LEP.

Critical to the success of the strategy and implementation plan will be the establishment of an executive team to take forward the technical aspects of the project in terms of detailed feasibility and design, consents and approvals, and project management and implementation. The engagement of a highly skilled Project Manager and small support team that can make early progress in working up the proposals and taking the scheme forward will be important.

The Project Manager should be an experienced and talented individual with the drive to broker the support of partners and lead expert teams in the development and delivery of the project. Essential skills will include technical competencies in relation to project management and economic development, as well as the ability to secure credibility with the private sector and other partners.

The project team will have a clear remit to support the Project Leader in developing the appropriate aspects of the strategy and ultimately executing the strategic direction that will be established by the Steering Group and take overall management responsibility for investment-related activities in Avonmouth Severnside. They will be responsible for regular reporting on all matters requiring approval and for taking forward the strategy and investment plan on a regular basis.

The Project Manager will work closely with the Board/Steering Group and with other partners such as the Environment Agency, Highways Agency, and Natural England, as well as the private sector, to develop and deliver the project and actions within the Avonmouth Severnside area. The focus of the Team would be on development and delivery of a clear strategy.

It is proposed that the team should comprise secondees and, where appropriate, external specialists. Depending on the workload the time inputs of individuals may vary and flexibility would be required about the staff deployed. The key roles would be as follows:

- planning and design – responsible for developing planning issues and design. It is envisaged that a more detailed design and masterplanning consultancy role will also be provided by an external expert with inputs as and when required;
- property and development – responsible for establishing the property market aspects of the project. The individual will play a key role in discussion and negotiation with landowners, developers, and potential occupiers. This may involve activity to secure land assembly if necessary;
- engineering – responsible for liaison with regard to environmental and highways infrastructure design and procurement;
- economic development and regeneration – responsible for promoting economic development and regeneration, including marketing and inward investment issues;
- project management – responsible for ensuring that the development of plans for feasibility, development, and implementation are appropriately tracked and reported; and
- secretarial and administration – responsible for ensuring effective support to the team.

The Project Manager and team would need to have access to expertise from within the authorities and a specific budget for external professional advice and marketing budget, as well as any approved project specific funding.

As the project develops, it is anticipated that additional project managers will be appointed to develop and implement specific projects. These would require skills appropriate for specific projects and may be provided by local authority secondees or external specialists, as appropriate. For example, additional marketing/PR expertise may be required, as may legal and specialist planning advice.

#### 5.4.3 *Approach to intervention*

The current economic climate and restrictions on public sector expenditure pose a significant challenge to developing and implementing a strategy for Avonmouth Severnside. However, there are also opportunities for the authorities and their partners to work innovatively with the private sector to drive forward the development and regeneration of Avonmouth Severnside.

In response to the current constraints, and in order to maximise the leverage of private resources, a range of public powers and resources will be considered and used to:

- develop feasibility and strategy:
  - establish and embed an appropriate planning strategy and ‘Masterplan’;
  - develop an appropriate highways and transport strategy; and
  - provide a relevant approach to flooding and other environmental issues.
- implement an infrastructure strategy to establish a setting for development:
  - Implement a ‘traditional’ approach to development and economic development through an initial programme of infrastructure in order to open up the site and create a setting for appropriate development; and
  - Establish appropriate mechanisms to fund infrastructure from the innovative use of available approaches;
- secure development:
  - establish appropriate development approaches in relation to development parcels – through disposal of sites for private sector development, joint ventures, and/or direct development as appropriate. In particular, joint ventures may be appropriate in association with local authority owned land assets in the later stages of the development; and
  - secure additional funding where gap funding/negative tendering or other approaches may be required to deliver projects meeting the objectives of the strategy which do not otherwise meet the normal commercial appraisal criteria.

## 6 Conclusions

Even as things stand the Avonmouth Severnside area presents a substantial range of development opportunities, some of which would be realised over future years in a continuation of the existing pattern and pace of development. However, there exist a number of specific issues that could affect or constrain future development. If these constraints are successfully addressed there is the potential for a much greater economic benefit in terms of the scale, nature and pace of development to be realised. This study has identified that the costs to overcome these constraints are substantial. However, having regard to the benefits – in terms of additional economic growth – these investments can be justified, although further detailed analysis will be required.

Avonmouth Severnside has long been an important economic area for the region and over recent years has seen considerable new development and redevelopment, in particular, for very large format warehousing/logistics and for new recycling and energy projects. Bristol City Council, South Gloucestershire Council and their partners are keen to see a development strategy for the area to 2050 which optimises its contribution to the local and national economy, whilst also protecting its ecological assets. However the future development and role of the area is challenged by a range of constraints. These include an increasing risk of large scale flooding, nature conservation and ecology issues of European significance, and limited motorway connectivity and local network capacity. Further to this, the 1957/58 planning consents to the (then) ICI Chemical Works in Severnside, which remains extant, have the potential to result in unconstrained development and a lack of co-ordination with other parts of the area, and to limit the ability of the local authorities to realise infrastructure improvements through the development control process.

These constraints cannot be separately addressed as a solution to one (for example, flood defences) may have a detrimental impact on another (such as ecology), whilst there are also opportunities to simultaneously address development constraints (such as ecology mitigation, green infrastructure requirements and landscaping). In addition to the technical connections, the issue of funding to deal with the constraints cannot be dealt with on an issue-by-issue basis. Consequently, an integrated strategic approach is required to address these issues and to realise the opportunities through a long-term planned approach to future development and infrastructure provision to 2050. An Outline Development Strategy has therefore been developed.

The Outline Development Strategy assessment has shown that development of sites across Avonmouth Severnside is likely to result in significant economic benefits for the local area. A number of use scenarios have been tested (varying the percentage of B2 and B8 uses) to provide an indication of the likely range of benefits that could be expected to arise from development. Depending on the use class assumptions, the gross employment potential ranges from just under 14,000 to more than 22,000. The net additional employment (i.e. that which is dependent upon addressing identified constraints) is estimated to be between 5,550 and 8,890.

These benefits cannot be generated without costs being incurred. Estimates suggest total capital costs of up to £106.8 million. Flood and ecology measures are estimated to be in the

region of £64.8 million, whilst a cost of £42 million is currently set against the new motorway junction and associated link roads. These are high level estimates and will need much refining. Alternative lower cost models are understood to be emerging in respect of the works proposed. Further to the capital costs, provision of £450,000 over three years has been made to fund a small team charged with delivering the development opportunity.

Nonetheless, based on these costs a value for money analysis shows positive results. The analysis indicates that all three scenarios deliver good value for money against established benchmarks for physical regeneration projects. Scenario 1, which assumes that all new accommodation will be used for B8 distribution uses, delivers a gross cost per net additional job of £19,320 and a return on investment of 13.2:1. This return on investment is above the benchmark of 8:1 for property related regeneration projects identified through the national evaluation of Regional Development Agencies. Other scenarios, profiling a higher proportion of B2 manufacturing activity, deliver greater value for money compared with benchmarks.

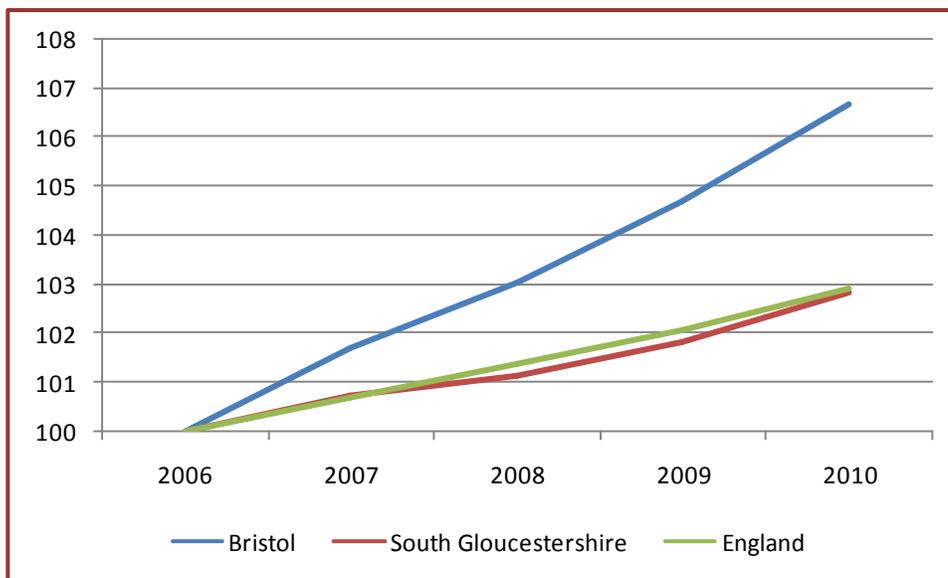
It is evident from the assessment that considerable potential exists for Avonmouth Severnside to develop further as an economic growth point. However, it is equally evident that without a concerted effort from a wide range of bodies and groups to comprehensively address the constraints to development, this potential will at best be much slower to be realised but more realistically will not be achieved. The constraints are too large and are inextricably interlinked to be dealt with by a single land owner or influencing public sector body or to be addressed on a single issue or site-by-site approach. Only a strategic integrated strategy can protect and enhance the areas national and international ecological standing, whilst simultaneously enhancing its flood defences and maximising its economic development potential. Such an approach will generate significant benefits for local residents and well as local, regional and national businesses.

## Appendix A: Labour Market Assessment

### A1 Total and working age population

Between 2006 and 2010, the population of Bristol increased from 413,600 to 441,300, an increase of 7.0%. This rate of growth exceeded the rate for England of 2.9%, as shown in Figure A1.1. The population of South Gloucestershire grew by 2.8%, from 257,500 to 264,800 (source: midyear population estimates, nomis).

**Figure A1.1: Indexed change in population 2006 to 2010**



Source: midyear population estimates, nomis

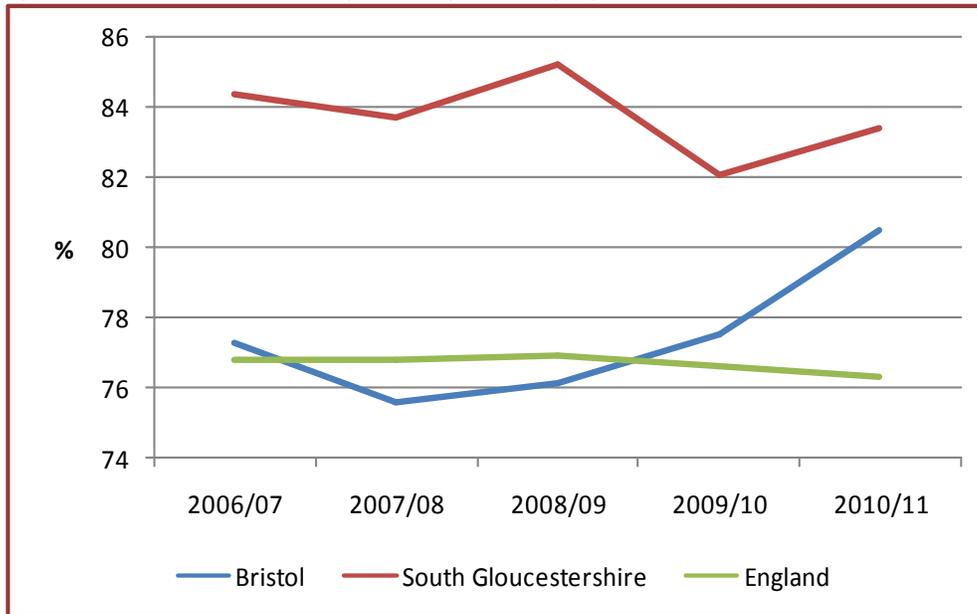
Bristol has a significantly higher proportion of working age residents than the England average. In 2010, 70.9% of Bristol's residents were of working age compared to an England average of 64.8%. This indicates the availability of a large source of potential labour. The rate for South Gloucestershire was the same as for England.

### A2 Economic activity

In 2010/11, both Bristol and South Gloucestershire had economic activity rates above the England average of 76.3%, with Bristol having a rate of 80.5% and South Gloucestershire a rate of 83.4%. South Gloucestershire has had economic activity rates of above 80% since 2006/07, whereas Bristol's rates have increased from below 76% in 2007/08.

Figure A2.1 below sets out the economic activity rates of working age residents for the period 2006/07 to 2010/11.

**Figure A2.1: Economic activity rates of working age residents, 2006/07 to 2010/11**



Source: annual population survey, nomis

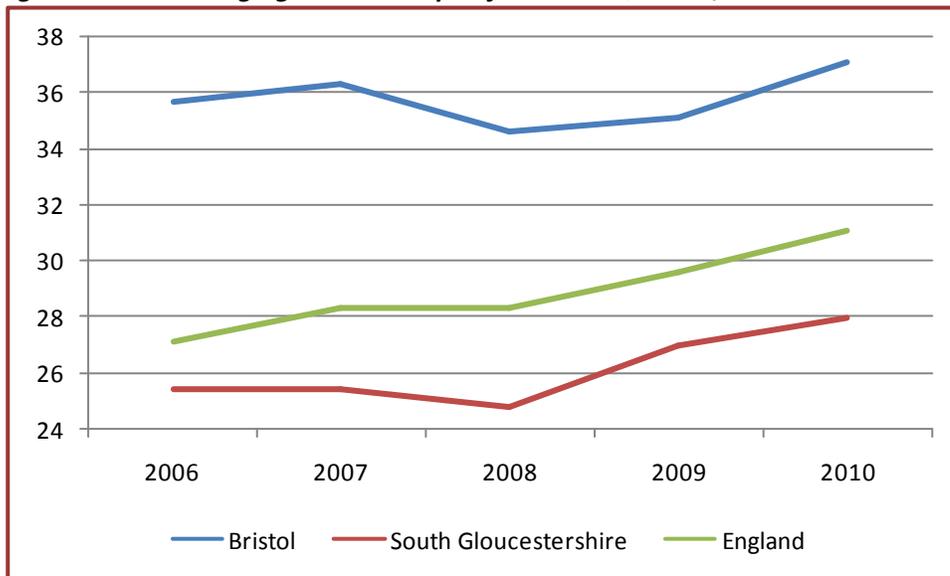
### A3 *Qualifications and skills*

In relation to NVQ level 4 skills, Bristol has performed above the national average for a number of years and in 2010, 37.1% of the local authority area's working age population were qualified to NVQ level 4 whereas only 31.1% of the working age residents of England had reached this level of attainment.

South Gloucestershire has not performed as well in terms of NVQ level 4 qualifications, and in 2010 28.0% of working age residents had reached this level of attainment. However, across all three spatial areas the percentage of working age residents qualified to NVQ level 4 has increased between 2006 and 2010 (see Figure A3.1).

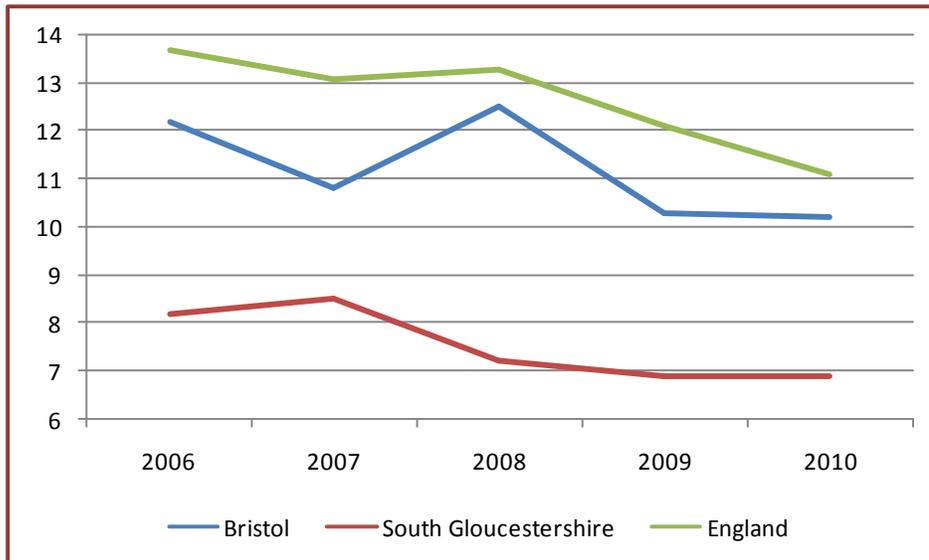
In relation to the percentage of working age residents with no qualifications, both Bristol and South Gloucestershire perform better than the average for England. In 2010, 10.2% of Bristol's working age population and 6.9% of South Gloucestershire's working age population had no qualifications, below the England average of 11.1%. Across all three spatial areas the percentage of working age residents with no qualifications has decreased between 2006 and 2010 (see Figure A3.2).

**Figure A3.1: Working age residents qualified to NVQ level 4, 2006 to 2010**



Source: annual population survey, nomis

**Figure A3.2: Working age residents with no qualifications, 2006 to 2010**



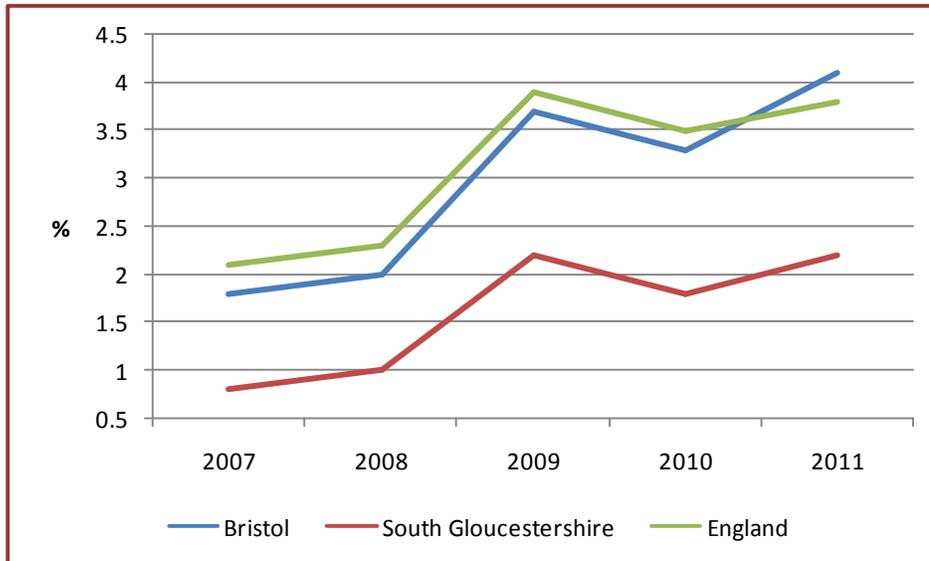
Source: annual population survey, nomis

## A4 Unemployment and worklessness

In September 2011, Bristol had a claimant count rate of 4.1%, above the England average of 3.8%. South Gloucestershire had a rate of 2.2%. Over the last five years the claimant count has risen in both Bristol and South Gloucestershire. In 2007, the rate in Bristol was just 1.8% and the rate in South Gloucestershire was 0.8%.

Figure A4.1 below shows the claimant count rates over the period 2007 to 2011.

**Figure A4.1: Claimant counts for the month of September, 2007 to 2011**



Source: Claimant count, Nomis

In February 2011, 12.6% of Bristol's working age residents were in receipt of key out of work benefits (Job Seekers Allowance, Incapacity Benefit, Lone Parents Allowance and Other Income Related Benefits). This was just above the Great Britain rate of 12.3%. In comparison, South Gloucestershire had a rate of 7.2%.

Between February 2007 and February 2011 the worklessness rate in Bristol varied between 11.4% and 12.8% and was constantly above the Great Britain rate. The rate in South Gloucestershire has remained below the national rate, varying between 6.1% and 7.5% (source: Department for Work and Pensions figures, nomis).

## A5 Deprivation

Bristol has pockets of high levels of deprivation. Of the 252 Super Output Areas (SOAs) in the local authority, 92 are in the most deprived 30% of SOAs in England, according to the Indices of Multiple Deprivation 2010. This included 9 SOAs in the most deprived 2% of SOAs in England and a further 23 in the most deprived 2% to 10%.

With regard to Avonmouth Severnside, two of the five SOAs covering the area are within the 25% most deprived SOAs in the country. In particular, the two SOAs suffer from relatively high levels of income and employment deprivation.

## Appendix B: Market Assessment

The following report has been provided by Thomas Lister, who are instructed as sub-consultants to AMION Consulting and WYG in respect of the provision of market assessment advice in relation to the Avonmouth and Severnside Outline Development Strategy.

### *B1 Location*

The subject area is situated predominantly between the M49 and the Severn Estuary immediately to the north of and including Avonmouth Docks within the City of Bristol.

Access to the site is via Junction 18A of the M5 and which leads directly into the southern-most portion of the study area or alternatively via the A403 which leads in a southerly direction from Junction 1 of the M48 approximately 3.75 miles to the north of the subject area.

### *B2 Description*

The study area comprises of an area of circa 1,600 ha. It is bounded by the River Severn to the west, the River Avon to the south, following approximately the line of the M49 to the east and extending towards the village of Severn Beach and the M4 to the north.

The area is very predominantly dominated by industrial and warehouse accommodation interspersed between agricultural/pasture land, and various energy and waste projects both existing and proposed. To the north of the M5 around Junction 18A and bounded approximately by the B4054, M5 and Severn Beach Railway line, there is an area of low grade housing together with school and local facilities which are excluded from the study area. Areas further to the east comprise further agricultural/pasture land the M5 Motorway and suburbs of the City of Bristol.

The subject area is predominantly level with drainage embankments and culverts. Avonmouth has been subject to considerable industrial and distribution warehouse developments from the 1950s onwards, together with waste and energy related schemes largely due to proximity to the Docks and railway access which predates this period. The area is substantially affected by HSE Consultation Zones as a result of the various industrial, waste and power/energy related schemes.

Despite being adjacent to the M49, direct access onto the motorway network is to some extent restricted with easiest access to the south western section of the area closest to Junction 18A which serves the docks being more intensively developed out. To the north east of the bisecting railway line development has tended historically to largely follow the coastline and A403, however more recently has extended south eastwards towards the motorway.

Alternative motorway access can however be obtained from the north, via the A403, which crosses over the M49, under the M4, joining the M48 at Junction 1. Alternatively the B4055 leads southwards off the A403 to Junction 17 of the M5.

In recent years, development has started to gain momentum, with a concentration on large distribution warehouse units within the Avonmouth and Severnside area to the north of the

bisecting railway line. For the purposes of the Market Assessment, the area has been divided into the Avonmouth Docks area, Avonmouth (South) – relating to that part of Avonmouth to the south of the bisecting railway line and the remainder of Avonmouth (North) combined with Severnside. This then relates to the physical character areas as existing as opposed to the democratic boundary areas.

### *B2.1 Avonmouth Docks*

Avonmouth Docks forms part of the Port of Bristol which is recognised as one of the most productive and technically advanced in the UK. Avonmouth Docks are currently one of the UK's major ports for the import of chilled foods, particularly fruit and vegetables, together with motor vehicles, forest products and bulk coal, animal feeds, grain and liquids.

The docks are connected to the rail network and Avonmouth Railway Station is situated within its boundaries. The same branch line also services the village of Severn Beach.

The original docks of Avonmouth date back to 1877 and were subject to considerable expansion in the early 20<sup>th</sup> Century providing cargo holding facilities, fuel storage depot and related offices and small business premises, much of the original stock now providing out of date, poor quality accommodation that is nearing the expiration of its economic lifecycle, particularly within close proximity of the docks. Approval has recently (March 2010) been received from the Department of Transport for the development of a new deep sea container terminal with a capacity to handle around 1 million containers per annum and allowing the port to accommodate ultra large containerships. The proposed new developments at the port will create a multi modal transport hub, including a new rail freight terminal which will be built partly on land reclaimed from the River Severn and will enable Bristol to take some of the world's largest containerships. It is estimated by the Bristol Port Company that the new terminal will create 500 full time equivalent jobs plus a further 500 jobs in associated businesses and it is anticipated that once construction work gets underway, it will be completed within a period of 3 to 4 years.

The proposed developments at the docks will have an impact on the highways infrastructure and it is recommended that these proposals be included within any traffic modelling undertaken as part of this overall study. It is also considered that these proposals may create additional demand for sites in the locality; although the extent of this is difficult to assess at this stage.

To the south east of the main docks, there are a number of industrial estates, including the Avon Riverside Estate and Avonbank Industrial Centre at the southern end of Victoria Road.

### *B2.2 Avonmouth (South)*

That area of land within Avonmouth and located to the south west of the Severn Beach Railway Line, comprises a total area of around 580 ha, which is predominately developed with well established industrial and warehouse distribution units, located within a number of estates including the Avonbridge Trading Estate (Atlantic Road), the Motorway Distribution Centre (Avonmouth Way), Island Trade Park (Bristol Broadway), Severnside Trading Estate (Burcott Road), Cabot Park (Poplar Way), Nova Distribution Centre (Nova Way) and Point 4 Industrial Estate and St. Modwen's Access 18 scheme.

Whilst there is some small element of B1 office use within this area, this is minimal as a proportion of industrial/warehouse space and predominately located within a recent development at Village Walk, Avonmouth Road or within the established industrial estates, including for example Surety House on Third Way which comprises 1950s two storey office accommodation. Of particular note, is however the recent St. Modwen Green Court development within Access 18, which comprises a total of 743 sq m and houses St. Modwen's regional teams with surplus space available to let.

In addition to the older established areas, there are a substantial number of new or proposed space, predominately located at Avonmouth Logistics Park at Kings Western Lane, Poplar Park and Cabot Park at Poplar Way West, the largest being known as Crossflow 550, a circa. 51,097 sq m unit constructed speculatively by Prologis and completed in 2008. It is noted that the unit remains vacant.

St. Modwen have planning consent on 22.3 ha of its 85.8 ha Access 18 scheme to the south western side of Kings Western Lane, with a pre-let unit of circa 3,902 sq m to Antalis and additional speculative space amounting to circa 3,716 sq m in three units.

There is in addition to the above, undeveloped land equating a total of circa. 24.3 ha (60 acres), located fronting onto the north eastern side of Kings Western Lane, together with a further plot (Plot 9 on plan contained within *Appendix III*) of circa. 6.9 ha (17 acres) located between the M49 and Severn Beach Railway of these, Plot 8 lies within the Flood Zone 3b and Plot 9 is considered likely to require remediation works arising from previous use.

### **B2.3 Avonmouth (North) and Severnside**

This part of the study area comprises of that part of Avonmouth, located to the northern side of the Severn Beach Railway Line, together with Severnside. This area is currently somewhat less developed than the southern Avonmouth area, due to its location further from the docks, poorer access and significant drainage issues, the area being heavily crisscrossed with rhines and brooks.

The most developed areas have historically been located around the Severn Beach Branch Railway Line and the A403, comprising predominately the Chittening Industrial Estate, Seabank Power Station, Severnside and Avlon Works, together with other energy and power related works.

There are however more recent developments both completed, progressing and proposed these being predominately located to the north of the area and include Western Approach Distribution Park, Astra Zenica and Central Park.

Land to the north of the M49 is also now being developed out, with a new Tesco distribution warehouse which has recently been completed.

Developments within the area are very predominately B8 in nature and include regional distribution centres for retailers such as Next, Dixons, (Former MFI and Focus), etc. as well as a Royal Mail distribution centre. There are also a number of manufacturing industries located within the area, including GKN and Warburton.

Also of note, as within the rest of the study areas, there are the historic and proposed energy and waste related uses.

Within the Severnside area, there are a number of planning issues to be noted which are associated with historic planning consent and obtained by ICI and can be summarised below with colour coding references relating to the *plan shown in Appendix IV*.

1957 – Approximately 405 ha (1,000 acres) were granted consent for industrial use including the development of offices, warehouses, canteens, hostels, sports facilities, etc.. The area subject to this consent is shown coloured grey on the plan.

Approximately 220 ha (545 acres) granted consent for the development of offices, warehouses, canteens, clubs, hostels, sports facilities, etc. This area is shown coloured yellow on the plan.

Approximately 445 ha (1,100 acres) for industrial processes – This area stretching out into the estuary is coloured brown on the plan.

1958 – Previous consent was extended to a further 22.8 acres (some 10 ha). Conditions attached to these consents included the provision of a buffer area where additional consents are required for development in order to protect the interests of local residents.

In summary, much (circa 650 ha) including most of the undeveloped/brownfield land within Severnside has a general planning consent facilitating development without the need for any additional consents (except within buffer zone). This is recognised within the South Gloucestershire Local Plan although a comprehensive strategy is sought.

### **B3** *Supply issues*

There being three distinct character areas as referred to within the above section, the current supply of units has been separated into three corresponding sections and then all three are considered together to give an overall picture of current property and land availability and supply within the study area.

#### **B3.1** *The Docks – Industrial/Warehouse*

Within the vicinity of the docks despite the aged (early 20<sup>th</sup> Century) nature of much of the accommodation, there are few units currently available and actively on the market.



This is considered most likely as a result of well established occupiers within the docks area, often making use of the docks facilities, many of which are bespoke in nature, together with the docks redevelopment/expansion proposals. It is, however, noted that there are the following properties available towards the south eastern area defined at the Docks.

Units 5 & 7 Avon Riverside Trading Estate	686 and 504 sq m respectively seeking rentals equating £54 and £51 per sq m respectively.	
Units 1, 10, 12, 15, 16, 22 and 23 Avonbank Industrial Centre, West Town Road	Refurbished industrial units ranging between 144 sq m and 285 sq m (1,554 sq ft – 3,069 sq ft) with asking rentals within the range of £75-£81 per sq m.	

Table B3.1 shows the number of units available within various size ranges, together with the quantum of space which this produces and which is currently available on the market within the area.

<b>Table B3.1: Availability of industrial/warehouse units (Avonmouth Docks)</b>		
Range of Unit Sizes	No. of Units	Quantum of space
< 93 sq m	0	0 sq m
93 sq m – 186 sq m	4	652 sq m
186 sq m – 465 sq m	2	567 sq m
465 sq m – 929 sq m	2	1,189 sq m
929 sq m – 1,858 sq m	0	0 sq m
1,858 sq m – 4,645 sq m	0	0 sq m
> 4,645 sq m	0	0 sq m

It is evident that the nature of accommodation available provides units of small/medium size and it would appear, due to the lack of current availability (together with analysis of previous transactions – see Section 5) that businesses located within this area tend to be settled and long established.

### B3.2 The Docks - Land

There is little land currently available on the market within the vicinity of the docks. This may be largely due to redevelopment/expansion proposals, both of the docks and the facilities contained therein to provide capacity for the berthing of large container ships, as well as other projects including the proposed W4B Bio Fuel power station.

There are however areas of open storage available to let, for example:

**Kings Road Avenue** – 1.7 ha (4.17 acres) secure fenced site available to let at an asking rental equating to £86,500 per ha (£34,848 per acre).

### B3.3 Avonmouth South – Industrial/Warehouse Units

Within the southern area of Avonmouth, there is approximately 139,355 sq m (1.5 million sq ft) of space presently being marketed, with units available within the range of 214 sq m (2,301 sq ft) and 50,725 sq m (546,000 sq ft). The following provides a sample of those properties currently being actively marketed;

<p>Cabot Park</p>	<p>Modern units of between 421 sq m (4,536 sq ft) and 2,005 sq m (21,584 sq ft) available at rentals of between £59 and £70 per sq m. Also new units of between 6,447 sq m (69,400 sq ft) and 50,725 sq m (546,000 sq ft) available at rentals of between £70 per sq m and £62 per sq m or to purchase at circa. £1,076 per sq m. Whilst some of these are offered on a Design &amp; Build basis, others including Crossflow 550 have been constructed on a speculative basis. The IO Centre was completed circa. 2003.</p>	
<p>Severnside Trading Estate</p>	<p>Units of varying quality and era available within size ranges of 251 sq m (2,704 sq ft) to 4,690 sq m (50,483 sq ft) at asking rentals of generally circa. £54 per sq m but £32 per sq m for the largest unit. It is however noted that newer smaller units of circa. 93 sq m (1,000 sq ft) are currently under offer with asking rentals of up to £97 per sq m.</p>	

		
Avonbridge Trading Estate	Units currently available lie within the range of 578 sq m (6,223 sq ft) to 1,662 sq m (17,891 sq ft) at rentals of between £48 and £59 per sq m.	

The following table shows the range and total quantum of units currently available within the area.

Table B3.2: Availability of industrial/warehouse units (Avonmouth South)		
Range of Unit Sizes	No. of Units	Quantum of space
< 93 sq m	0	0 sq m
93 sq m – 186 sq m	0	0 sq m
186 sq m – 465 sq m	9	3,206 sq m
465 sq m – 929 sq m	21	12,796 sq m
929 sq m – 1,858 sq m	14	17,026 sq m
1,858 sq m – 4,645 sq m	6	16,350 sq m
> 4,645 sq m	4	88,335 sq m

It is evident that the majority of units currently available lie within the medium to large scale with little availability for smaller companies. It is also the case that newer accommodation tends to provide larger warehouse/distribution facilities and that this tends to be located towards Severnside where redevelopment land is available.

#### B3.4 Avonmouth South - Land

The majority of this area, as it is closer to the docks and motorway access, has been developed out or is presently being advertised for design and build opportunities within schemes such as St. Modwen's Access 17 and Cabot Park.

Access 18 comprises of a 48 ha (118 acre) site which St. Modwen are proposing to develop out in phases in a Joint Venture agreement with site owner Britannic Zinc. Phase I has been developed out to provide around 7,432 sq m (80,000 sq ft) of distribution/warehouse space within 4 units, one of which was subject to a pre-let to Antalis, the other three on a speculative basis and now occupied by Nisbetts and Budget Greeting Cards. Part of Access 18 will be known as the Bristol Recycling Ecopark, aimed at attracting recycling companies seeking to transform waste into energy.

Outline planning consent has been obtained for a further 22 ha (55 acres) enabling around 74,322 sq m (800,000 sq ft) of development.

Cabot Park is a distribution park that is substantially developed out having attracted occupiers such as Robert Wiseman Dairies, Kuehue & Hagel, Honda, John Lewis and Burtons. Subsequent to the development of Crossflow 550, there is little land remaining available within the Park, although there is a plot towards the south eastern most extent of the area identified as Parcel 7 on the plan at Appendix IV comprising 7 ha (16.5 acres) which it is considered might be brought forward for development.

The only other sites considered likely to come forward for development within the area are identified as Parcels 8 and 9 on the plan attached at Appendix IV which comprise a total of 30 ha (75 acres) but which have development constraints including flood risk alleviation measures and remediation issues relating to previous uses.

### *B3.5 Avonmouth North/Severnside – Industrial/Warehouse Units*

Available space within this area is split between existing, generally poorer quality industrial units within for example the Chittening Industrial Estate originally developed out in the 1950s and Hallen Industrial Estate of similar era, to large new distribution sheds, some previously occupied (e.g. former MFI unit) and others advertised on a “design and build” basis within G Park and Central Park.

A summary of accommodation presently being marketed as being available is as follows.

<p>Chittening Estate</p>	<p>Units of 687 sq m (7,400 sq ft) to 733 sq m (7,887 sq ft) available (C1-C2 and D) at asking rentals ranging between £39 and £65 per sq m.</p>	 
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<p>Estuary Park, Chittening Estate</p>	<p>A warehouse of almost 7,246 sq m (78,000 sq ft) capable of being split into three bays at an asking rental equating £46 per sq m.</p>	
<p>Hallen Industrial Estate, Severn Road</p>	<p>Unit L comprising 302 sq m (3,256 sq ft) available to let at a rate equating £35 per sq m.</p>	
<p>Former MFI Unit at Western Approach Distribution Park</p>	<p>Comprising a modern unit of circa. 6,118 sq m (65,858 sq ft) available at an asking rental equating £57 per sq m.</p>	
<p>G Park, Plots 6,000 and 8,000</p>	<p>Available on a Design &amp; Build basis to be developed by Gazeley with units available from 8,948 sq m (96,317 sq ft) to 47,089 sq m (506,867 sq ft) on sites of up to 5 ha (13 acres).</p>	
<p>Central Park, Units 1-8</p>	<p>Available on Design &amp; Build packages to be developed by Goodman with units of between 18,869 sq m (203,100 sq ft) and 121,829 sq m (1,311,355 sq ft) being marketed.</p>	

The following table shows the range and total quantum of units currently available within the area.

Table B3.3: Availability of industrial/warehouse units (Avonmouth North/Severnside)		
Range of Unit Sizes	No. of Units	Quantum of space
< 93 sq m	0	0 sq m
93 sq m – 186 sq m	0	0 sq m
186 sq m – 465 sq m	1	302 sq m
465 sq m – 929 sq m	2	1,411 sq m
929 sq m – 1,858 sq m	0	0 sq m
1,858 sq m – 4,645 sq m	0	0 sq m
> 4,645 sq m	13	405,534 sq m

There is a very substantial quantum of units being advertised as available within the area, predominately within proposed new units available on sites within G Park and Central Park on a Design & Build basis. Where single units of up to circa. 120,774 sq m (1.3 million sq ft) are advertised in this way, it somewhat distorts current availability but does provide an indication as to anticipated demand, building upon the success of the area in attracting major retail distributors.

### *B3.6 Avonmouth North/Severnside - Land*

As referred, in the previous section, there is a substantial area of land currently being advertised as being available on a Design & Build basis, including around 121 ha (300 acres) within Central Park (Phases 1 & 2).

These Design & Build opportunities account for the majority of that land included within the area to the west of the M49, although there are a number of additional sites identified as Parcels 35, 45, 55, 125 and 135 on the attached plan, totalling circa. 84.4 ha (208 acres) also between the coast and the M49 and which have planning consent under the 1957 and 1958 ICI consents previously referred to.

To the eastern side of the M49 there are additional sites identified (15, 25, 65, 75, 85, 95, 105 and 115) and which have the benefit of planning consent under the 1957 and 1958 consents, amounting to a total of circa 160.3 ha (396 acres). Development has commenced within this area with the construction on circa 40 ha (100 acres) of a 44,872 sq m (483,000 sq ft) Tesco Distribution Depot and highway infrastructure in place to extend development into parcels 65-115 within the scheme to be known as Portal West Distribution Park.

### *B3.7 Overall study area supply of industrial/warehouse accommodation and land*

It will have been noted that the nature of those units available within the study area varies significantly between the three separate geographical areas. In this section, all the data has been brought together to provide an overview of the quantum supply of units currently available to potential occupiers/investors in the region.

Table B3.4: Availability of industrial/warehouse units (overall study area)		
Range of Unit Sizes	No. of Units	Quantum of space
< 93 sq m	0	0, sq m
93 sq m – 186 sq m	4	652 sq m
186 sq m – 465 sq m	12	4,075 sq m
465 sq m – 929 sq m	25	15,396 sq m
929 sq m – 1,858 sq m	14	17,026 sq m
1,858 sq m – 4,645 sq m	6	16,350 sq m
> 4,645 sq m	17	493,868 sq m

The above table provides an indication of the vast quantum of industrial/warehouse space available within the study area, although the most significant size range for availability is that in excess of 4,645 sq m (50,000 sq ft), the majority of this being advertised on the basis of Design & Build opportunities and which is unlikely to be brought forward on a speculative basis without pre-sale or pre-lets.

The table does not show those other areas of land identified and extending to circa 244 ha (604 acres) with a capacity for the provision of an assumed additional circa. 733,934 sq m (7.9 million sq ft) assuming a site coverage at around 30%.

### B3.8 Office Supply

The amount of office space which is not ancillary to industrial/warehouse units within the study area is extremely limited.

The space that is available is contained predominately within industrial estates in the Avonmouth area. Examples include:

Richmond House, Avonmouth Way	Serviced office suites of 9-56 sq m available within 2 storey 1950s structure.	
Island Trade Park, Bristol Broadway	Hybrid 2 storey unit of 301 sq m.	

Green Court, Kings Weston Lane	New 2 storey BREEAM “excellent” building of 568 sq m available in separate suites from 181 sq m.	
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The total office supply presently being marketed within the area is currently around 1,877 sq m (20,209 sq ft) and this has an average marketing period to date of around 16 months.

The following table provides a summary of the size ranges for current office availability within the study area.

<b>Table B3.5: Summary of the size ranges for current office availability in the area</b>		
Range of Unit Sizes	No. of Units	Quantum of space
< 93 sq m	3	198 sq m
93 sq m – 186 sq m	0	0 sq m
186 sq m – 465 sq m	4	1,112 sq m
465 sq m – 929 sq m	1	568 sq m
929 sq m – 1,858 sq m	0	0 sq m
1,858 sq m – 4,645 sq m	0	0 sq m
> 4,645 sq m	0	0 sq m

This shows around 10% in small office suites of less than 93 sq m (1,000 sq ft), the majority (approximately 59%) within the 186-465 sq m (2,000-5,000 sq ft) range and a single unit within the 454-929 sq m (5,000-10,000 sq ft) range.

## **B4 Demand**

Demand across the area has been assessed through the analysis of deals that have occurred over recent years. In this section concentration is on the quantum of space transacted. Information has been derived from databases including CoStar’s Focus Property Database and verified through discussions with local agents and developers.

### **B4.1 Demand for Industrial/Warehouse**

It is noted that until 2004, the largest single transaction recorded on Focus related to a freehold sale of a unit of circa 3,828 sq m (41,208 sq ft) in Burcott Road within Severnside Trading Estate. In 2004 a single unit of 9,848 sq m (106,000 sq ft) was sold within Avonmouth Road, Avonmouth to Nisbets Plc. In 2005, the largest transaction by far related to the freehold acquisition by Gazeley UK Limited of 81,873 sq m (881,278 sq ft) including the Focus Distribution Centre from Redrow Group Plc. on Weston Approach Distribution Park. This transaction accounting for almost three quarters of all space transacted during the year, but does not relate to

occupational transactions and hence has been disregarded. The next largest related to the letting of 4,768 sq m (51,317 sq ft) at plot 6020 Western Approach.

The largest two transactions within 2006 related to units of 4,738 sq m (51,000 sq ft) and 4,047 sq m (43,563 sq ft) within Third Way, Avonmouth and Severn View Industrial Estate, Central Avenue, Avonmouth respectively.

2007 saw the largest transaction recorded on Focus within the area, relating to the pre-let of unit M1 within RD Park Bristol scheme (subsequently renamed Avonmouth Logistics Park) to Constellation of 82,922 sq m (892,561 sq ft) representing 50% of space transacted during the year.

In 2008 average unit transaction size reverted to sub 1,858 sq m (20,000 sq ft), a trend that continued into 2009 and 2010 with the largest transaction over this period in 2009 of circa 26,477 sq m (285,000 sq ft) relating to the letting of space within the Avonmouth Logistics Centre, Kings Weston Lane.

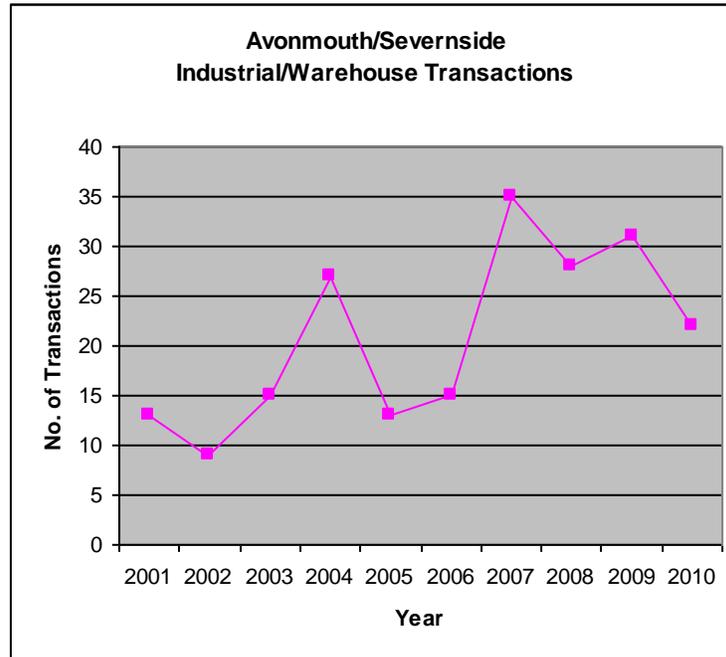
Table B4.1 summarises trends over the past 10 year period.

<b>Table B4.1: Industrial/warehouse space transacted</b>					
<b>Year</b>	<b>No. of transactions</b>	<b>Area (sq m)</b>	<b>Av. transaction area (sq m)</b>	<b>Max transaction area (sq m)</b>	<b>% largest of total transaction</b>
2001	13	16,046	1,234	2,323	14.47%
2002	9	4,338	482	936	21.57%
2003	15	22,000	1,467	3,828	17.40%
2004	27	60,260	2,232	9,848	16.34%
2005	13	30,873	2,375	4,768	15.44%
2006	15	19,504	1,300	4,738	24.29%
2007	35	165,230	4,721	82,922	50.19%
2008	28	42,855	1,531	10,611	24.76%
2009	31	55,412	1,787	26,472	47.77%
2010	22	35,140	1,597	7,728	21.99%
		0	0	0	
<b>Average</b>		<b>45,166</b>	<b>2,171</b>	<b>15,417</b>	

Analysis of the figures summarised within the above table shows average take up rates over the past 10 year period to equate circa 45,166 sq m (486,000 sq ft) per annum, but that this is achieved through few transactions with annual take up being potentially doubled through a single deal.

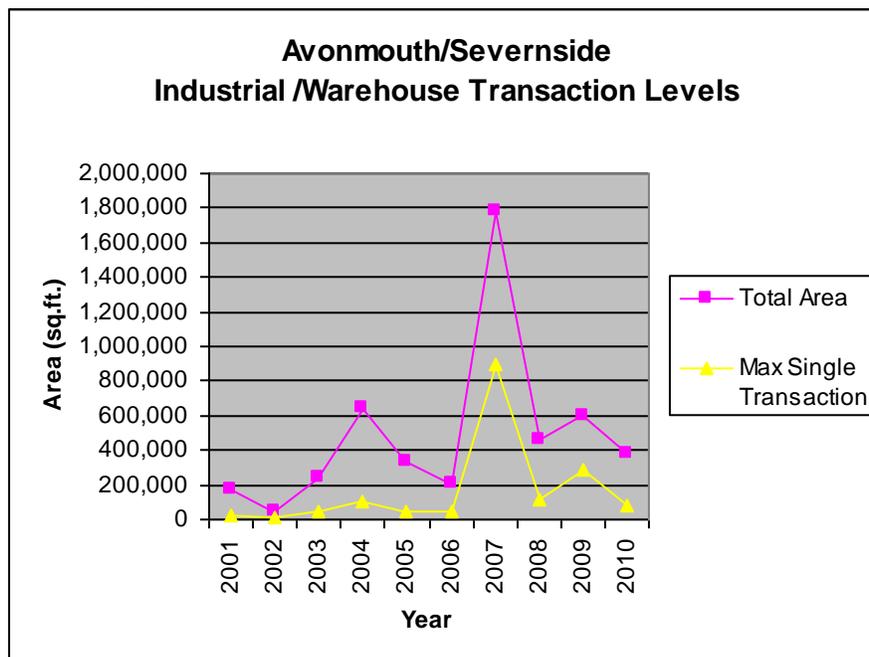
The trends are further illustrated in Figures B4.1 and B4.2.

**Figure B4.1: Industrial/warehouse transactions**



The above chart shows the numbers of transactions recorded on Focus to peak in 2007 and not surprisingly due to the recession to subsequently drop back to 2004/05 levels. The average annual number of transactions lies at around 21.

**Figure B4.2: Industrial/warehouse transaction levels**



The quantum of space transacted also peaks in 2007 as shown in the above chart. The scale of this peak is substantially due to a single transaction and whilst without this transaction a peak would still occur, it would be considerably less pronounced.

It is noted that the overall marketing period for industrial/warehouse properties currently on the market averages around 1.6 years, although it is noted that new buildings such as unit D at Cabot Park comprising 4,120 sq m (44,345 sq ft) had been marketed for in excess of 3 years prior to a letting being achieved in December 2010.

The above information is substantially derived from analysis of a single data set (Focus) however for consistency purposes, this is considered appropriate. It is however important to note that not all transactions get reported on Focus, for example reference is not made to the new Tesco distribution centre which alone would increase the take up rate in 2009/10 by circa 44,872 sq m (483,000 sq ft).

In addition to the above, a number of transactions have taken place during 2011, including the re-letting of the 23,226 sq m (250,000 sq ft). Focus Distribution Centre unit on a seven year lease subject to an option to break in year 3, by WH Malcolm Limited subsequent to a circa 25 month marketing exercise.

Also of note is the recently announced proposed new Cooperative Group regional distribution centre to be let on a new 5 year lease and to comprise a warehouse of 40,485 sq m (435,780 sq ft) on a 13 hectare (33 acre) site currently occupied by Honda Motor Europe and owned by the Crown Estate Commissioners. This is to be developed by Stoford Developments/Gallan Group and has been pre-sold to AXA.

#### *B4.2 Demand for offices*

As previously outlined, there is little stand alone office space available within the study area, with only around 790 sq m (8,500 sq ft) being transacted on an annual basis and with average marketing periods of around 16 months. With circa 1,877 sq m (20,209 sq ft) currently available on the market, this equates to a 2.5 year supply.

Discussions with agents in respect of the failure thus far by St. Modwen's Green Court building confirm that this is not an ideal office location due to the nature of surrounding uses.

#### *B4.3 Demand for energy and waste projects*

The study area has historically contained a significant number of energy and waste related schemes, including sewage works, gas works, fuel storage and traditional power stations.

There are a number of significant new proposed energy and waste projects proposed, many within the site of existing facilities and including the Bristol Recycling Park, forming part of St. Modwen's Access 18 proposals which include a "waste to energy" scheme.

It is also noted that the proposed Helius Energy W4B bio-fuel power station scheme, to comprise the largest biomass power plant in the UK on a 7 ha (18 acre) site within Avonmouth Dock, was recently granted planning consent upon appeal. The "green" power station will

produce electricity for around 25,000 homes. The site is optioned subject to the securing of consent under the Electricity Act.

With historic and new waste and energy schemes proposed, the area is becoming known as a main location for green power generation and according to agents active in the area “forward thinking businesses are jostling to be party to it” and with the “proliferation of businesses in the area working on greener methods of generating energy and processing waste, coupled with Avonmouth’s logistical and geographical advantages, had triggered the surge of interest”.

#### *B4.4 Demand for Aerospace sector activity*

There is an aspiration to attract additional Aerospace related industries to the study area. This largely stems from GKN’s having secured a new facility for the manufacturing of structural components for wings for the Airbus.

It is understood that GKN were required to commit to a site by January 2009 and that time constraints led to their acquisition of existing space at Severnside. GKN refer to their Severnside site as Filton West, despite being 7.5 miles from their main Filton site.

Filton has strong links with the aerospace industry and is largely owned by BAE Systems who rent out facilities to other parties including use of the runway. Filton is also closely linked to nearby facilities for the Ministry of Defence, University of the West of England and Rolls Royce.

“S” Park is situated around 2 miles from the main Filton complex and is identified for research and development purposes for aerospace industries within the National Composites Centre to be developed upon the site. It is noted that GKN are a partner within the National Composites Centre.

The south west has a number of clusters for aerospace uses which include Cheltenham, Yeovil, Bournemouth/Poole as well as Bristol. There are no other aerospace related uses of which we are aware within the Avonmouth area, with smaller companies tending to be situated to the south of Bristol including Clevedon.

GKN’s relocation to Severnside might be considered to be as a result of short timescale for products requirement, such that no alternatives existed within the Filton area and that there is little long term potential for establishing a new aerospace cluster so close to the Filton “S” Park cluster.

It is understood that SWRDA have held discussions with suppliers that will be specifically servicing the GKN Severnside facility to establish whether they may be interested in developing facilities on the site. However, there has been little interest in co-locating on this site.

#### *B5 Imbalances between supply and demand*

There is a current supply of new and proposed warehouse facilities extending to around 486,088 sq m (5,232,207 sq ft) out of a total supply (old and new) of 547,368 sq m (5,891,824 sq ft), hence representing around 89% of availability within the study area. Average annual take-up rates within the area stand at circa 45,151 sq m (486,000 sq ft) over the past 10 year period.

The highest take up rate for any particular year was achieved in 2007 at around 165,230 sq m (1,778,525 sq ft).

If this highest rate of spatial take up could be achieved over forthcoming years, then the current and proposed stock levels will take around 3 years to be fully occupied. This assumes that in the intervening period existing units do not come back on to the market.

Based on average annual take up rates achieved over the past 10 year period, current and proposed units will take around 12 years to be fully occupied.

The market for offices is considered insignificant in the context of this study. It is also considered unlikely that with the nature of surrounding uses, that the area could easily compete with schemes elsewhere within Bristol e.g. Emerson's Green, even if enhanced motorway access were to be available.

## B6 Values

### B6.1 Industrial/Warehouses

Industrial/warehouse rental values associated with new space within the study area tend to lie within the range of £43 and £75 per sq m, dependent upon size and location and averaging circa. £64 per sq m against an overall achieved rental average over the past 5 years of circa £51 per sq m.

It is noted that asking rentals for new units tend to lie within the range of £48 and £81 per sq m, average around £66 per sq m.

Recent transactions of particular note include the following;

Focus Distribution Centre	23,266 sq m (250,000 sq ft) warehouse let January 2011 to WH Malcolm Limited on a 7 year lease, subject to an option to break in year 3 at a rental of £1,000,000 per annum, equating £43 per sq m. The quoting rental was £1,375,000 per annum, equating £59 per sq m.	
DC115, Cabot Park	10,684 sq m (115,000 sq ft) warehouse leased from Prologis Developments in December 2008 at £700,000 per annum equating £66 per sq m on a lease expiring 2015.	

<p>Unit D, Poplar Park</p>	<p>4,120 sq m (44,345 sq ft) warehouse let December 2010. The asking rental was based upon a rate of £70 per sq m. Other units within the same development have achieved rentals at this quoted rent (e.g. DX Network Services – 2,973 sq m (32,000 sq ft), October 2007, subject to a 4 month rent free period). Freehold sales have also been achieved at rates equating £1,006 per sq m (e.g. 1,292 sq m (13,903 sq ft) sold to Burtons Go Bananas in September 2008 at £1,300,000).</p>	
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Over the course of the last couple of years, there have been a number of investment transactions which have taken place within the study area including the following:

- Pre-let of 40,485 sq m (435,780 sq ft) unit on a 13 hectare (32.95 acre) site to be developed by Stoford Developments/Gallan Group. The site is understood to have been acquired for £11 million, reflecting a rate per acre of £333,839. The lease is for a 25 year term with rent reviews linked to RPI. There will be flood risk measures to be undertaken, including the raising of floor levels with abnormal costs arising. The site has been sold to AXA subject to the lease at a price reflecting a yield of 5.85%. It is understood that a £250,000 payment is to be made to assist funding an upgrade to the A403.
- Unit A, Access 18 West – October 2010 - CCLA Investment Management Limited purchased the freehold in 3,245 sq m (34,929 sq ft) let to Qualiten Supplies Limited on a 15 year lease from November 2004 at a rental of £201,250 (£62 per sq m) in the sum of £2,570,000 reflecting a net initial yield of 7.4%.
- Unit 8A-C Severnside Trading Estate – June 2010 – 5,486 sq m (59,051 sq ft) sold to Kindale for £1,600,000 reflecting a yield of 9.1%.
- Plot 6020 Western Approach – November 2009 – 4,757 sq m (51,199 sq ft) unit sold to Threadneedle UK Property Trust for £3,690,000 as an investment. The property is let to MacFarlane Group UK Limited at an annual rent of £302,500 (£64 per sq m), equating to a net initial yield of 7.75%.

## B6.2 Offices

Deals concluded over recent years in respect of office accommodation within the study area suggest a rental level of circa. £54 per sq m for poorer quality space at for example Surety House, comprising a 2 storey building of 1960s era.

Higher quality accommodation such as that within Green Court, with a BREEAM “excellent” rating has an asking rental equating £161 per sq m having reduced from £178 per sq m and we are advised that St. Modwen would accept £140-£151 per sq m.

Office content upon the upper storeys, above retail units at Village Walk has achieved rentals of around £97 per sq m.

### *B6.3 Land*

Open storage land is available around the Docks with a quoting annual rental in the order of circa £86,487 per ha (£35,000 per acre).

Most of the land available within the area is advertised as being achievable on a Design & Build basis with attached land values in the region of £803,092 to £864,869 per ha (£325,000 to £350,000 per acre).

It is, however, understood through discussions with Agents active within the area, that developers would be prepared to negotiate a straight forward sale based on rates of around £988,422 per ha (£400,000 per acre), although this would not be their preferred option.

Recent transactions for example the purchase of 13 ha (33 acres) to facilitate the proposed new Co-op Distribution Warehouse show rates per ha of around £827,803 (£335,000 per acre) to be achievable.

## *B7 Conclusions*

The overall study area comprises of three main character areas including the Docks, land within Avonmouth to the south of the Severn Beach Railway line and the remainder of Avonmouth and Severnside to the northern side of Severn Beach Railway line.

Avonmouth Docks comprises predominately older style accommodation associated with storage and dock activities including fuel storage, poor office accommodation and older style warehousing, together with some smaller industrial style units in the vicinity of Avonmouth Station.

The southern Avonmouth area, located immediately to the east of the docks contains a significant amount of industrial/warehouse space in smaller to medium sized units, predominately up to 4,645 sq m (50,000 sq ft), with newer developments underway/proposed around Kings Weston Lane providing significantly larger warehouse units.

That part of Avonmouth to the north of the Severn Beach Railway comprises a number of older style industrial estates, including Chittening Industrial Estate and power station/gas works with proposals for additional energy and waste projects. Until recently, this area was predominately agricultural in nature but with infrastructure and initial phases of large warehouse/distribution units being developed. Whilst this area currently has poorer motorway access, it is successfully being developed out on a phased basis with very significant occupiers being attracted to the area, including Tesco, GKN, Next, Dixons, Warburton, etc.. Within the area, there was also recently announced proposed development of a 40,413 sq m (435,000 sq ft) unit for Co-operative Food Stores. Current levels of demand for sites/units suggest that at current take up

rates, available/proposed units will provide for circa. 12 years supply. There are substantial additional areas of land which could potentially come forward albeit many of these have potentially significant abnormal costs associated relating to flood alleviation measures and/or remediation costs, much of this has the benefit of historic planning consent.

In conclusion, it is considered that the area is already particularly successful in attracting investment from national major distributors and energy/waste despite access to the motorway network not being quite as accessible as it might be.

In the event that motorway access was enhanced, through the provision of an additional junction off the M49 direct into Severnside, then it is considered that this would:

- be of economic benefit to logistic companies operating within the area in terms of slight improvements in time and fuel usage;
- render the area generally more attractive for major distribution warehousing schemes; and
- have little impact on other energy/waste scheme projects.

Due to the economic benefits derived and referred to above, it would seem appropriate to reflect this in land/property values. Whilst it is considered possible that land values might rise slightly such that rates per hectare of nearer £988,422 (£400,000 per acre) might be derived, the quantum of space available within the different and competing schemes means that land values are unlikely to rise significantly, although one might expect those schemes closest to the new junction to have the slightest of edges in their ability to attract occupiers with a resultant enhancement in take up rates, albeit mostly from competing areas within Severnside Avonmouth.

Demand for warehouse distribution is considered unlikely to be displaced from elsewhere in the region as a result of any potential motorway enhancements. The fact that the area can very successfully attract major national occupiers without any such enhancement suggests that this is already seen as an attractive location. Of greater impact is considered to be the relatively “open” planning consent from which much of the area derives benefit.

Whilst many of those sites available lie within the flood plain and hence require alleviation measures, this has not to date prevented continuing development and hence viability to date due to increasing costs arising from alleviation issues appears not to have been a problem. Whether there are pent up/exasperated issues arising for subsequent schemes is beyond the scope of this report.

Similarly, abnormal remediation costs arising from previous uses has to date had little impact upon viability although much of the development within Severnside is on greenfield sites.

The potential for the creation of an aerospace related cluster is considered extremely unlikely to be achieved, taking in to account the proximity of Filton and other clusters within the south west.

Finally, due to the historic and ongoing nature of the uses attracted to the area, it is considered unlikely that alternative more valuable uses such as offices, hotels, etc. would be considered either appropriate or in greater demand, as a result of the provision of an additional motorway junction. If there were to be any such developments brought forward, it is considered likely

that these would be limited in scale as there are likely other areas of Bristol around the motorway network both more attractive and sustainable for such uses. It is also considered that HSE issues would be more of an obstacle for such uses.

## Appendix C: Risk Assessment

[insert]

ID	Risk type	Description	Risk			Mitigation	Mitigated risk		
			P	I	RS		P	I	RS
1	Procurement								
1.1	Procurement method	The appropriate procurement method to deliver infrastructure and development is undetermined at this stage.	2	4	8	Preparation of a Procurement Strategy and appropriate tendering arrangements	1	4	4
1.2	Disputes and performance	Issues may arise during delivery of infrastructure or subsequently when development takes place.	3	4	12	Use of standard contractual arrangements will smooth arrangements and enable disputes to be resolved.	2	4	8
2	Project Specific								
2.1	Project design	The business case may be inadequate.	3	4	12	Careful and detailed consideration of the business case will help to mitigate risk.	2	3	6
2.2	Costs	The overall costs of the project to the public sector may increase because of inadequate initial information.	3	4	12	Careful consideration of budget costs, the inclusion of appropriate contingencies, and effective project management during the course of implementation will be essential to reduce risk.	3	3	9
2.3	Timing	The timescales for the project may be extended beyond those envisaged in the business plan.	3	3	9	Careful and realistic estimates of timescales, together with high quality project management during implementation, will help to reduce risks.	2	3	6
2.4	Project benefits	The outputs, results, and impacts of the project may be less than those anticipated in the business plan.	4	3	12	Realistic forecasts at the business planning stage, together with benefits maximisation strategies, will assist in mitigating risk.	2	3	6
3	Client specific								
3.1	Requirements of partners and stakeholders	It may be difficult to satisfy the requirements of potentially competing demands of stakeholders and partners.	3	4	12	Establishing appropriate organisational and management arrangements, together with ensuring views can be taken into account and arrangements included to enable effective negotiation to take place, are essential.	2	3	6

3.2	Project management	Project management arrangements may be inadequate for the complexity of the project involved.	3	4	12	Effective project management arrangement need to be established from the outset to ensure that development is adequately managed from the client side.	2	3	6
4	Environment								
4.1	Land ownership	The land is in multiple ownerships, which will challenge a comprehensive strategy for the area's development. [WYG]	2	4	8	Engagement and co-operation of many of these land owners.	1	4	4
4.2	Extant planning consents	Outline Planning Consent granted to ICIU in 1957/1958. The land covered by them may be developed for the variety of uses outlined above without the need for further planning permissions. This limits the Councils' ability to secure mitigation (including, for example, S.106/CIL obligations) for the impacts of the development on this area through the planning system [WYG]	2	3	6	-	2	3	6
4.3	Future Planning Consents	Planning consents will be required to implement the proposals. [WYG]	3	4	12	If the Councils are to achieve their vision that is set out in the Brief for this project, current development plan policies will need to be revised to facilitate further development.	2	4	8
4.4	Hazardous installations	There are risks that the extent of hazardous installations, their associated consultation zones and the guidance about development within those zones could change during the period to 2050. The impact of these changes could be both positive (in terms of enabling additional land to be considered for development), or negative (by reducing the extent of land available for additional employment development). [WYG]	3	4	12	The allocation of additional land for employment development within the study area will therefore need to be restricted to areas outside these zones.	3	3	9

4.5	Hazardous installations	The redevelopment of previously developed land will be more restricted in some parts of the study area than otherwise assumed as a result of HSE designated Inner Zones [WYG]	4	3	12	The allocation of additional land for employment development within the study area will therefore need to be restricted to areas outside these zones.	3	3	9
4.6	Services	Existing services may require substantial easements that restrict development. [WYG]	4	3	12	Review detailed location of services within areas intended for further development. Examine feasibility (including cost) of diverting existing services.	3	3	9
4.7	Services	Existing services may be inadequate to serve new development. [WYG]	4	3	12	Investigate capacity of services to accommodate additional new development and cost of upgrading those services.	3	3	9
4.8	Contamination	Cost of dealing with contamination may be very high. [WYG]	4	3	12	Undertake a review of contaminated land within the study area and investigate costs of mitigating known contamination.	3	3	9
4.9	Contamination	Cost of dealing with contamination may render the site's redevelopment for employment uses unviable. [WYG]	3	4	12	Investigate options for securing funding to remediate the land.	3	3	9
4.10	Contamination	Contamination may limit the ability to develop some land. [WYG]	3	3	9	Undertake a review of contaminated land within the study area and investigate costs of mitigating known contamination.	3	2	6
4.11	Contamination	Greenfield land may be contaminated. [WYG]	3	3	9	Undertake a review of contaminated land within the study area and investigate costs of mitigating known contamination.	3	2	6
4.12	Green Infrastructure	GI requirements are not co-ordinated with the requirement to provide ecological Mitigation with regard to COMAH zones and other designations. [WYG]	3	3	9	Ensure that GI provision is linked to other mitigation requirements to minimise the requirement for additional GI.	2	3	6
4.13	Landscape	Development may adversely affect landscape contrary to SGC's Landscape Character Assessment SPD and Natural England's Severn and Vales Character Area (although it is not subject to any local, regional, or national landscape	3	3	9	Proposals for new development will need to incorporate measures, where possible, to retain existing landscape features and provide new landscaping.	2	3	6

		designations). [WYG]							
4.14	Archaeology	Development of currently undeveloped areas may have a harmful effect on archaeology. [WYG]	3	3	9	Further investigation will be required of the parts of the study area where further development is proposed. The further investigation is likely to include field evaluation, particularly on greenfield land, on a site by site basis.	2	3	6
4.15	Ecology	There may be inadequate sites available for ecological mitigation for the existing and planned development in and around the study area. [WYG]	3	3	9	Review option of providing ecological mitigation away from the study area (this approach is being pursued in connection with the development of the Port's DSTC).	2	3	6
4.16	Ecology	The funding available to undertake the works required to mitigate the impacts of the existing and planned development on the area's ecology may be inadequate. [WYG]	3	4	12	Investigate all potential funding sources.	2	4	8
4.17	Ecology	Development or mitigation may have a negative impact on protected species. [WYG]	3	3	9	Undertake site surveys and plan for enhanced habitats to facilitate protected species.	2	3	6
4.18	Ecology	Land owners may be unwilling to make land available for ecology mitigation. [WYG]	3	4	12	Review whether CPO powers could be used to secure land for ecology mitigation. Ensure that a range of different sites are available for mitigation.	2	4	8
4.19	Ecology	Further studies may reveal that sites identified for mitigation are already being used to capacity by the species for which they are intended. [WYG]	3	3	9	Undertake detailed surveys of potential mitigation sites.	2	3	6
4.20	Ecology	Sites identified for mitigation may be unsuitable. [WYG]	3	3	9	Undertake more detailed site surveys of ground conditions and other factors.	2	3	6
4.21	Ecology	Other infrastructure may have an adverse impact on the area's ecology. [WYG]	3	3	9	Assess ecological impacts of other infrastructure requirements (e.g. M49 junction and flood risk mitigation).	2	3	6
4.22	Transport infrastructure	The Highways Agency may object to development of new motorway junction. [WYG]	3	5	15	Ensure close consultation with the Highways Agency.	1	5	5

4.23	Transport infrastructure	Cost estimates for the motorway junction may be inaccurate. [WYG]	3	3	9	Develop and cost more detailed proposal for motorway junction and link roads and undertake ground investigations.	2	3	6
4.24	Transport infrastructure	Assumptions upon which transport modelling is based may vary leading to an under or over statement of the impacts of development on transport infrastructure. [WYG]	3	3	9	Monitor on-going development in the study area.	2	3	6
4.25	Flooding	The majority of the study area is at risk of tidal flooding and has specific surface water drainage problems which necessitate its inclusion within the area administered by the Lower Severn Drainage Board. [WYG]	5	5	15	The Strategic Flood Risk Assessment Level 2 indicates that it is essential that a strategic flood defence solution is brought forward to protect existing and new development within the study area.	2	5	10
4.26	Flooding	Maintenance/raising of the existing flood defences may result in a loss of habitat that must be mitigated elsewhere. [WYG]	3	3	9	Seek technical advice about the impact of climate change on the SPA in the event that flood defences are maintained at, or raised above, their existing height.	2	3	6
4.27	Flooding	Landowners may be unwilling to co-operate to develop a comprehensive flood risk solution. [WYG]	3	4	12	Consider CPO powers and alternative comprehensive flood risk solutions.	2	4	8
4.28	Flooding	Existing flood defences may be incapable of Improvement. [WYG]	4	4	16	Consider options to replace existing flood defences or develop new flood defence inland.	2	4	8
4.29	Flooding	Condition of flood defences may be worse than anticipated and more urgent works are required to maintain/raise the defences. [WYG]	4	4	16	Undertake more detailed condition surveys of the defences.	2	4	8
4.30	Flooding	Assumptions underlying cost estimate may vary resulting in variation in cost. [WYG]	3	3	9	Seek to verify cost assumptions.	2	3	6
4.31	Flooding	Options for flood mitigation may have a significant harmful impact on the SPA. [WYG]	3	3	9	Consider alternative options for design and siting of flood defences.	2	3	6

4.32	Flooding	Investors/developers may take an increasingly risk averse view to development within the study area. [WYG]	3	3	9	Ensure proposals for bringing forward land incorporate a comprehensive flood risk solution.	2	3	6
4.33	Flooding	Bristol Port may delay or abandon its proposals for a DSTC. [WYG]	3	3	9	Consider alternative flood defence options in the vicinity of the Port.	2	3	6
4.34	Flooding	Fluvial flooding may be exacerbated by the development of the 1957/1958 permission. [WYG]	3	4	12	Undertake technical work to assess impact of development of the 1957/1958 permission on fluvial flood risk in the area.	2	3	6
4.35	Flooding	Fluvial flood risk may not be able to be mitigated. [WYG]	2	5	10	Exclude areas in flood zone 3b from further consideration for development.	2	3	6
4.36	Flooding	Fluvial flood risk mitigation may be too costly. [WYG]	3	5	15	Undertake detailed analysis of fluvial flood risk mitigation.	2	4	8
4.37	Flooding	Fluvial flood risk mitigation may be incompatible with ongoing agricultural use of the land. [WYG]	3	4	12	Consider cost of acquiring and subsequent management of land for flood risk mitigation.	2	4	8
4.38	Flooding	Land owners may be unwilling to make land available for fluvial flood risk mitigation. [WYG]	3	4	12	Consider a range of alternative sites for flood risk mitigation.	2	4	8
4.39	Flooding	Surface water drainage may be adversely affected by climate change. [WYG]	3	3	9	Assess whether modelling has been undertaken to assess impacts of climate change on surface water drainage.	2	3	6
4.40	Flooding	Surface water drainage may be adversely affected by flood defence improvements. [WYG]	3	3	9	Ensure that preparation of detailed flood defence proposals take account of surface water drainage requirements.	2	3	6
5	External issues								
5.1	Political	Political priorities may change during the course of implementation of the project.	3	3	9	It will be important to ensure that flexibility is incorporated into the business plan.	2	3	6
5.2	Economic	The project may be adversely affected by local and wider economic conditions which may impact on, for example, market demand.	4	4	16	The business plan will need to be flexible to cope with changes in the economic context.	3	4	12
5.3	Social	Changes in social opinions and demands may change for example in relation to development and the environment.	3	4	12	Again, the business plan needs to be sufficiently flexible to incorporate changes in social opinions.	3	3	9

5.4	Technological	Technological change may affect the project including, for example, the distribution of goods, and methods and approaches to flood defence.	3	3	9	The project will need to ensure that it can respond to future technological change wherever possible.	2	3	6
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