

Cardiff Local Development Plan 2006 - 2026



Preferred Strategy

October 2012



Foreword	4
1 Introduction	8
2 Preferred Strategy Summary	14
3 The Cardiff context and key issues the plan must address	18
4 LDP Vision and Objectives	22
5 Strategic Growth Options	36
6 Spatial Options	48
7 The Preferred Strategy	64
8 Strategic Policies	84
9 How to comment on the plan	100
List of Appendices and Background Technical Papers	101

Contents

Foreword



Foreword

I am pleased to set out the Council's proposed strategic approach for the development of Cardiff up to 2026. This document, the Local Development Plan (LDP) Preferred Strategy, together with other supporting material, explains the Council's approach, outlining options considered and the reasons why the strategy is proposed.

I decided to place a 'working draft, no status' Preferred Strategy document into the public domain in mid July in the spirit of openness and to raise awareness of the major issues being considered ahead of the formal six week consultation process starting in November.

Assuming the Preferred Strategy is approved at Council on 25th October, this document and supporting technical material will be subject to a 6 week public consultation process between 1st November and 14th December, 2012. I very much hope that you will take the time to consider the issues raised and submit your views.

A new plan for Cardiff is now long overdue - the most recent previously adopted Local Plan is some 16 years old, having been adopted in 1996. The deliberations and decisions of the previous two Council Administrations (2004-2008 & 2008-2012), have left the Council without a Local Development Plan in place and, worse still for the city, with an ear-marked residential land-bank of less than 3 years, when a minimum of 5 years is required. As a result Cardiff Council is seriously weakened in its ability to defend against development proposals in even the most valued areas of countryside. The outcome of a recent planning appeal involving an application to build 79 homes in a

conservation area illustrates how vulnerable Cardiff is to "planning by appeal". Planning applications that pay little or no heed to over-arching strategic considerations are much more likely to be given the go-ahead at appeal and it would be irresponsible to permit this unsustainable situation to continue by not producing a sound Local Development Plan.

The decision of the previous Council Administration to drive forward with a LDP for the years 2006-2021 that relied entirely on meeting housing needs through the allocation for residential development of brown-field sites and also failed to pay heed to other evidenced needs culminated in the Council having to withdraw the Plan. This meant any new plan would have to span the years 2006-2026, with the additional five years meaning adding an extra 8,000 homes (based on a 10 year past build rate*) to the number previously required under the withdrawn plan.

Thus far from protecting the countryside around Cardiff, the previous Council Administration has left it vulnerable to "development by appeal" and ensured that even more land would have to be allocated in the current proposal than had been required for the plan period 2006 - 2021.

Furthermore Cardiff needs a sound LDP, not only to ensure the vital new homes and jobs are provided but also because in the absence of a new LDP, the Council cannot effectively control where development takes place, the quality of that development and the community benefits arising from the new development.

The Plan therefore seeks to provide the necessary homes and jobs which current and future generations need. However, it proposes to do this in a way which best respects Cardiff's environmental assets with sustainable transportation solutions at its core. The aim will be to create sustainable neighbourhoods of the highest possible quality design which have the right range of facilities provided at the right time.

A master-planning process will follow the consultation period and will work up the detailed aspects of potential of new development areas including the provision of necessary infrastructure. There will be further opportunities to comment on such matters later in the LDP process as the Preferred Strategy sets out only the proposed strategic approach to meeting future development needs.

In conclusion, I invite you to take the opportunity to gain a better understanding of the future development issues faced in Cardiff and how the Council intends to tackle them. Please let us know what you think of the approach and if you don't agree, outline how you believe things could be done differently.

It is really important that as many people and interests as possible comment on this plan. We can therefore consider all comments made before preparing a more detailed plan called the Deposit LDP which will ultimately be examined by an Independent Planning Inspector.

Thank for showing interest in this important document. I very much look forward to receiving your views but please remember to submit these by the end of 14th December, 2012.



Councillor Ralph Cook
Deputy Leader
Cardiff County Council

**Cabinet Member for Strategic Planning,
Highways, Traffic & Transport**

*(For period 02/03 - 11/12= 1,595 homes pa average, projected over 5 years= 7,975)

Foreword



Role of the Preferred Strategy

1.1 This document sets out a strategy for the future development of Cardiff, capital city of Wales and economic driver of the wider city-region to 2026. It provides an opportunity for people and organisations to comment on the strategy before a more detailed framework called the Deposit Local Development Plan (LDP) is consulted on and then formally submitted for independent examination prior to adoption. LDPs are a key driver for investment, help the city-region compete in a competitive market, create homes and protect sensitive environments. They deliver vital outcomes for not only the local community but also for businesses and other interests. In this way LDPs set out how development can be delivered in a sustainable way for the next 15 years.

1.2 The Preferred Strategy is of key importance in shaping the type of city Cardiff will be at the end of plan period in 2026. It provides a strategy which explains how the Council plans to:

- Respond to evidenced social and economic needs together with providing the necessary infrastructure to deliver development;
- Deliver these needs in a co-ordinated way that respects Cardiff's environment and

responds to the challenges of climate change; and

- Create sustainable neighbourhoods that form part of a sustainable city.

1.3 In short, the plan seeks to set out how sustainable development can be delivered in Cardiff. It sets out a strategy for providing the jobs and homes people need especially affordable and family accommodation. The strategy recognises the key role Cardiff plays as driver of the city-region but also takes account of environmental challenges and constraints which must be respected. Measures are included to explain how growth will be delivered with an emphasis on sustainable transportation solutions together with a framework to provide well designed and sustainable neighbourhoods fit for future generations.

1.4 The Preferred Strategy therefore aims to give a broad outline of the intended level of growth in Cardiff and how it can be sustainably delivered taking into account the following:

- The national and regional policy framework (see Appendix 1);
- A sound understanding of the local context- identifying key data and issues which the plan must take account of from the evidence base;
- The Council's Community Strategy and LDP vision and objectives;

- Considering the merits of different growth options; and
- Considering the merits of different spatial options- where the best places are to accommodate new development needs.

1.5 To compliment the Preferred Strategy, strategic policies and a Key Diagram are also included to explain in more detail how the strategy can be delivered. A full range of Appendices and Background Technical Papers are also available with the aim of providing relevant background information underpinning this document.

1.6 Importantly, this document is subject to a formal 6 week consultation process. In this way, views submitted will inform the preparation of a more detailed plan, the Deposit LDP which is itself subject to further formal consultation. Ultimately, approval for the plan rests with an independent Inspector who will decide if the plan is fit for purpose by assessing it against the following 10 tests of soundness:

- Has the plan been prepared in accordance with the Delivery Agreement, including the Community Involvement Scheme?
- Has the plan been subjected to sustainability appraisal, including strategic environmental assessment?

- Does the LDP have regard to other relevant plans, policies and strategies relating to the area, or adjoining areas?
- Does the plan have regard to national policy?
- Does the plan have regard to the Wales Spatial Plan?
- Does the plan have regard to the relevant community strategy?
- Does the plan set out a coherent strategy from which policies and allocations logically flow?
- Are the strategy, policies and allocations realistic and appropriate (having considered the relevant alternatives) and are they founded on a robust and credible evidence base?
- Are there clear mechanisms for implementing and monitoring the plan?
- Is the plan reasonably flexible to enable it to deal with changing circumstances?

1.7 It is therefore vital that the plan is prepared in a manner considered to fully meet these tests of soundness. Failure to prepare a sound plan would have major consequences over and above the considerable waste of time and money. This is because the LDP provides a plan-led approach to comprehensively and sustainably balance the competing interests to produce a robust plan for the future. Should the LDP be considered unsound or unduly delayed, it is highly likely that major planning applications would be submitted in the absence of an up to date

Introduction

adopted planning framework. In such a situation, the Council would have far less control in managing where development takes place, the details of schemes and provision of transportation, social and community infrastructure.

1.8 Once the LDP is adopted (programmed for October 2015), it will form the statutory development plan for the area and replace the following current extant development plans for Cardiff:

- City of Cardiff Local Plan (1996);
- South Glamorgan (Cardiff Area) Replacement Structure Plan (1997);
- South Glamorgan (Cardiff Area) Minerals Local Plan 1997;
- Mid Glamorgan County Structure Plan incorporating Proposed Alterations No.1 (September 1989), which relates to the Pentyrch and Creigiau area of the county formerly part of Taff Ely Borough Council.

1.9 Since these plans were approved, the Council commenced work on preparing a Unitary Development Plan (UDP). However, new legislation requiring Strategic Environmental Assessments of plans had implications on delivery. Therefore, in May 2005, following agreement with the Welsh Government, the Council resolved to cease preparation of the UDP and work commenced on preparing a new LDP. A timetable showing the

proposed dates of the different stages of the LDP preparation process is set out in the LDP Delivery Agreement forming Background Technical Paper No 14. This amended timetable was prepared following the withdrawal of the previous LDP in March 2010 due to significant concerns raised by the Independent Inspectors. The timetable has been approved by the Welsh Government but on the specific condition that there is no slippage.

How to make comments

1.10 You can comment on the Preferred Strategy in one of two ways:

- On-line by registering at www.cardiff.gov.uk and using the on-line response form, or
- If you are unable to make comments on-line, please download a response form from www.cardiff.gov.uk and e-mail it to ldp@cardiff.gov.uk. Alternatively, forms can be obtained by telephoning 029 2087 3461 and returning them by post to the address below:

LDP Team
Strategic Planning
Cardiff Council
Room CY1
County Hall
Atlantic Wharf
Cardiff
CF10 4UW

1.11 The consultation period runs from 1st November to 14th December 2012. **Comments must therefore be received by midnight on 14th December 2012.** The Council cannot guarantee that comments received later will be considered. All comments made by the deadline will be acknowledged and considered.

1.12 If you have any queries about how to submit your views either:

- Check the website www.cardiff.gov.uk for up to date information;
- E-mail our team on ldp@cardiff.gov.uk; or
- Speak to our team on 029 2087 3461.

Introduction



Context

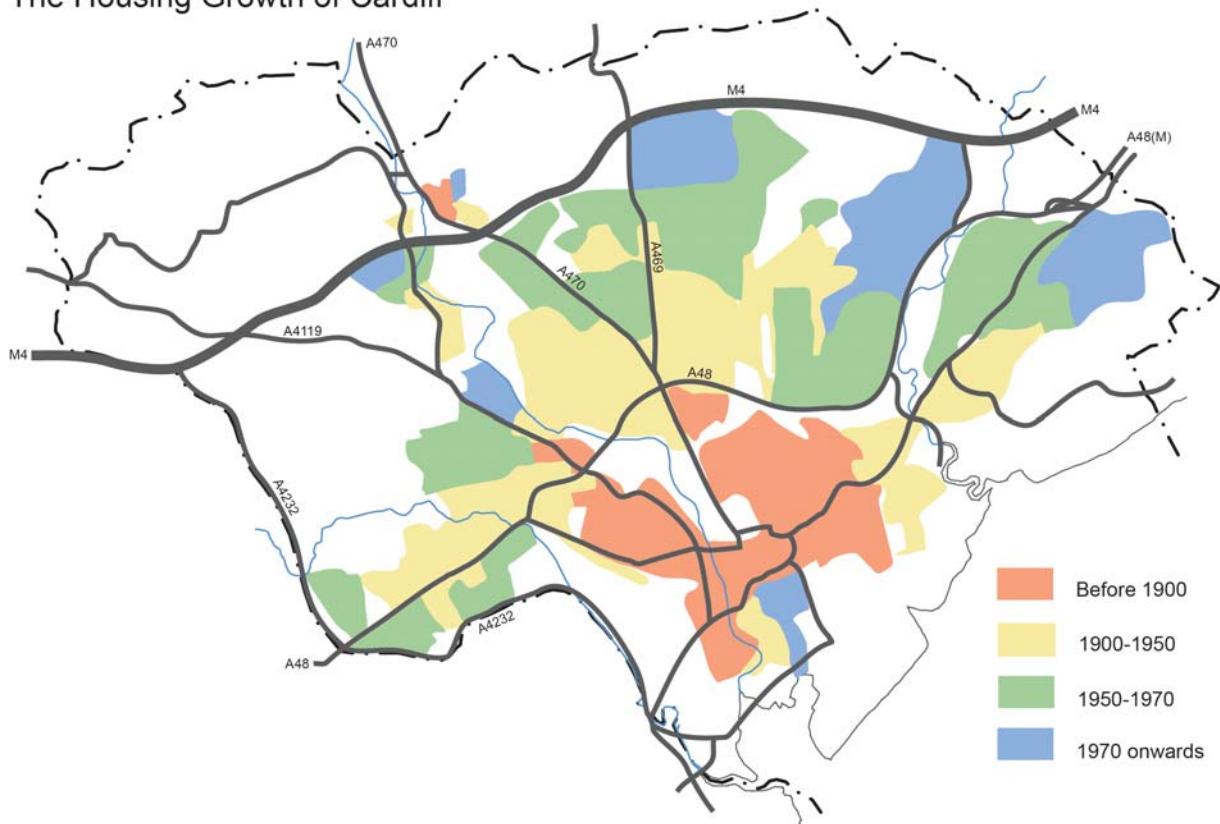
2.1 Cities change. Cardiff is no exception and faces major decisions on what type of place it will be by 2026. Evidence shows a significant need for new homes and jobs to meet future needs such as planning ahead for our children and bringing forward new job opportunities. As the diagram on this page shows, Cardiff has continued to grow since Victorian times. This Plan seeks to set out what future level of growth is appropriate for Cardiff.

2.2 As existing plans are out of date and previous attempts to secure a new adopted plan have not been successful, the need for a new plan

is now acute. The absence of an up to date adopted plan makes it hard to resist planning applications which may not necessarily be in the best interests of the city. The preparation of a sound LDP for Cardiff is the only way to plan for the necessary growth of the city in a manner that avoids negative impacts on its **existing** qualities.

2.3 The six points below summarise the key elements of how the Preferred Strategy proposes to meet social and economic needs whilst respecting environmental factors and delivering sustainable neighbourhoods as part of a sustainable city.

The Housing Growth of Cardiff



Strategy Summary

1. Growing to meet future needs-

Meeting the future need for jobs and homes by setting out a strategy to deliver 40,000 new jobs and 45,400 dwellings over the plan period. This level of growth meets the needs of Cardiff's anticipated future population. It also strikes the right balance in supporting Cardiff's key role as economic driver of the wider city region and providing social and economic benefits for a wider area.

2. New homes- Providing a range and choice of new housing opportunities with different dwelling sizes, tenures and locations including provision for affordable housing together with providing for Gypsy and Traveller needs. Over half of the provision will be met by brownfield sites within the existing urban area including land yet to be developed in Cardiff Bay and new sites at the former Arjo Wiggins Mill and Ferry Road Gas Works. However, due to a finite urban capacity and the need to protect parks and river corridors, urban sites will be complemented by approximately 18,000 new homes on greenfield land including the following strategic sites:

- North East Cardiff, between Lisvane & Pontprennau- Approximately 6,000 homes;
- East of Pontprennau Link Road- Approximately 2,000 homes;
- North West Cardiff- Approximately 7,500 homes;

- North of Junction 33- Approximately 2,000 homes; and
- South of Creigiau- Approximately 750 homes.

3. New jobs- Providing a range and choice of new job opportunities on different types of site relating to different types of jobs and protecting existing employment sites which perform an important economic role in the city. Strategic Sites helping to deliver this strategy include:

- Cardiff Central Enterprise Zone and Regional Transport Hub- A major employment-led initiative in the heart of the city focusing on financial and business services;
- Roath Basin- Mixed use scheme including offices, residential, retail and leisure;
- North of Junction 33- An element of employment uses as part of a wider mixed use scheme well suited to the ICT, life sciences, energy and environmental technologies sectors;
- North West Cardiff, North East Cardiff & Arjo Wiggins site- Employment uses will form a complimentary element of these housing-led schemes; and
- St Mellons- A well accessed and quality site adding an extra dimension to the Cardiff business offer.

4. Sustainable neighbourhoods-

Ensuring that new homes and jobs form part of well planned communities which have the right range of facilities provided at the right time and built as part of a phased programme. The strategy sets out key principles for new development responding to key sustainability factors and providing a well designed, safe, accessible and healthy environment for all. The need to sustainably manage waste, reduce emissions and maximising renewable solutions are also highlighted. A period of masterplanning will follow approval of the strategy to translate these principles into more detailed plans which will form part of the Deposit Plan. The strategy also sets out ways to tackle deprivation and improve the quality of life for residents such as through supporting District Centres, creating healthier environments and enhancing community facilities.

5. Sustainable transportation solutions-

Responding to the challenges associated with new development by setting out an approach aimed at minimising car travel, maximising access by sustainable transportation and improving connectivity between Cardiff and the wider region. This can be achieved by making the best use of the current network, reducing demand where possible and widening travel choices. The aim is to secure a modal split of 50% car and 50% non-car modes. This will be achieved by a number of ways including:

- Reducing the need to travel through location and design;
- Improvements to public transport;
- Park and Ride/Share Schemes;

- Provision of high quality walking and cycling infrastructure;
- Travel Planning- Widening travel choices to work; and
- Improving safety and accessibility for all.

6. Protecting Cardiff's environment-

The strategy has been developed to minimise impact upon Cardiff's environmental assets. The strategically important ridge to the north of the M4 will be protected and continue to form a highly important green backdrop to the city along with other areas of countryside around the city. Importantly, open spaces and river valleys within the urban area are protected. In total, well in excess of 5,500 hectares of countryside and strategic river valleys running through the urban area will be protected from development. Cardiff's rich and diverse heritage assets have also been fully taken into account in preparing the strategy which seeks to protect, manage and enhance these interests to maintain and enhance Cardiff's unique distinctiveness.

The Cardiff context and key issues the plan must address



Introduction

3.1 This section provides a summary of some of the key issues which have informed the plan. A fuller version is contained in Appendix 2 of this document along with other evidence and data set out in the numerous Background Technical Papers.

The Cardiff Context

- Largest urban area in Wales with a population of 341,100.
- Key driver of city-region economy in south east Wales.
- 1.4 million live within 45 minutes drive time of the city.
- Capital city of Wales, seat of Welsh Government.

Key social trends and issues

- Cardiff's population has risen steadily over past 20 years- over 3,400 each year since 2001.
- Official projections indicate continued population growth over the plan period.
- Significant need for affordable housing- Over 10,000 people on combined housing waiting list.
- Local Housing Market Assessment indicates a need for over 3,700 affordable dwellings for each of the next 5 years to address need.
- Family housing is a key need.
- 76 existing Gypsy & Travellers pitches will generate future needs which the plan must address.

- Students comprise approximately 9.4% of Cardiff's population.
- Ethnic minorities comprise 11.2% of Cardiff's population, higher than the Wales average but similar to the England/Wales average.
- Welsh speakers are less than the Wales average but there are considerable variations within communities.
- The city experiences substantial health inequalities.
- Whilst Cardiff possesses a generally high quality of life, there are areas of deprivation geographically mostly concentrated in, 'the southern arc'.
- Community safety is a key issue emerging from residents surveys.
- Cardiff performs well compared to other English Core Cities in attaining high-level skills and one third of its workforce educated to degree level or above..

Key economic trends and issues

- Cardiff accounts for 32% of total employment in south east Wales and its economy is generally strong and buoyant.
- Cardiff's employment workforce totals nearly 189,000 with 88% of jobs being in the service sector..
- Cardiff & the Vale of Glamorgan generate 22% of the Welsh GVA (Gross Value Added).

- Unemployment in Cardiff was 4.4% in December 2011.
- The recession has caused the loss of approximately 4,700 jobs between 2008-2010.
- Cardiff has one of the highest percentages of high growth firms in the UK between 2002-2010.
- Inward investment trends are improving but continue to trail other leading core cities.
- The City Centre and Cardiff Bay remain the principle office locations complimented by out of centre sites but Cardiff lacks a large supply of Grade A office space and the Plan supports the ongoing regeneration of the Bay Business Area, including Mount Stuart Square.
- The total industrial stock in Cardiff is approximately 19.2 million square feet and mainly concentrated in the south/eastern area of the city but only 6.1% of the stock is less than 5 years old.
- Cardiff City Centre is the main shopping centre for south east Wales and is ranked the 6th top retail centre in the UK.
- The leisure and tourism sector generates significant economic and cultural benefits for the city.

modes (37% of Cardiff's workforce).

- Travel on rail services has increased considerably- the use of Cardiff Central and Queen Street Stations has risen by 82% between 2000-2010.
- Cycle use has increased 6% between 2000-2012 but bus use has fallen slightly over the same period.
- Cardiff International Airport is located within the Vale of Glamorgan providing the closest international links to Cardiff.
- The operational port in Cardiff performs an important role in terms of freight movement.

Key environmental trends and issues

- Cardiff is located within a well defined landscape setting with prominent ridges to the west and north and Severn Estuary to the south.
- The countryside and urban areas contain a wealth of natural and historic interests. For example, there are almost 1,000 Listed Buildings, 27 Conservation Areas, 2 sites noted for their international biodiversity importance, 17 Sites of Special Scientific Interest and 177 Sites of Importance for Nature Conservation.
- The city has a particularly rich Victorian and Edwardian legacy.
- Cardiff has over 400 hectares of recreational open space and

Key transportation trends and issues

- Traffic on Cardiff's roads grew by 12% between 2000-2010.
- 57% of Cardiff's residents travel to work by car.
- Nearly 74,200 people commute into Cardiff each day by all

2000 hectares of amenity space. The four river valleys of the Ely, Taff, Rhymney and Nant Fawr provide extensive and continuous corridors running from the countryside and through the urban area.

- Good quality agricultural land is known to exist in some areas.
- Flooding is known to pose a risk in relation to fluvial, tidal and surface water. Detailed studies have been undertaken to assess the extent of this risk and inform the plan.
- The main source of CO₂ emissions in Cardiff are from industry (45%) with domestic sources contributing 30%.
- The main source of emissions affecting air quality is road traffic (nitrogen oxide the main pollutant).
- Current production of renewable energy in Cardiff is low.
- Over the past 10 years, recycling rates in Cardiff have risen from 4% to 54%.
- Cardiff possesses a significant and good quality of mineral reserves.
- Water quality in the main rivers is improving but still falls below the requirements of the Water Framework Directive.



Background

4.1 The vision and objectives provide an over-arching context for the plan that shows how economic, social and environmental considerations can be balanced to deliver the sustainable development of Cardiff up to 2026. They take full account of the strategic policy context provided by the Council's, 'What Matters' Strategy (2010-2020) which brings together the Community Strategy; Children & Young People's Plan; Health, Social Care & Wellbeing Strategy and the Community Safety Strategic Assessment into one document. The Council has worked together with partners from the public, private and voluntary sectors in Cardiff to set out the collective vision for the city contained in this document. Furthermore, the vision and objectives also take account of the Wales Spatial Plan that recognises the role played by Cardiff in helping to spread prosperity in the area and delivering a high quality of life.

4.2 Considerable work has been undertaken to develop an evidence base to inform the plan so that it is founded on up to date information and identifies the key issues that the plan should address. Appendix 5 to this report provides a summary of the evidence base.

4.3 To complete the process of helping to inform the vision and objectives, a consultation and engagement exercise was carried out in November/December 2010. This used a wide range of means to

capture responses to open questions based on the 7 strategic outcomes contained in 'What Matters'. These included:

- A well attended Stakeholder Consultee Conference;
- 4 Public Consultee Conferences held at venues around the city;
- Questionnaire contained in the Council's November Capital Times free newspaper;
- Questionnaire available on-line via the Council's website;
- 'Ask Cardiff' random postal questionnaire to 5,000 households;
- Citizens' Panel questionnaire to 1,000 households; and
- E-mail responses to website and other publicity.

4.4 Findings from this process have informed the LDP objectives. Interestingly, it has been noted that many strong themes emerging from the consultation process very closely mirror some of the key themes based on wider work, such as bringing forward jobs and affordable/family housing, the recognition of health as a key issue, the importance of sustainable travel and the high value placed on parks and open spaces. The consultation exercise has therefore very much added to findings coming from the strategic policy context and issues identified from the evidence base.

4.5 The LDP vision and objectives have also been subject to a Sustainability Appraisal/ Strategic Environmental Assessment process. This has considered draft vision and objectives against the SA/SEA objectives. Where potential issues have been identified, suggestions for improving the objectives have been made. The vision and objectives contained in this report have been amended following the SA/SEA process. Background Technical Paper No. 1 provides a summary of the SA/SEA process undertaken including proposed changes to the originally drafted text.

The Vision

4.6 The LDP Vision is as set out in the 10 year, 'What Matters' Strategy (2010-2020) which is that: "**By 2020...Cardiff will be a world class European capital city with an exceptional quality of life and at the heart of a thriving city-region**".

4.7 Partners have agreed seven strategic outcomes that, if achieved would represent ultimate success and the realisation of the vision. The outcomes are that:

- People in Cardiff are healthy;
- People in Cardiff have a clean, attractive and sustainable environment;
- People in Cardiff are safe and feel safe;
- Cardiff has a thriving and prosperous economy;

- People in Cardiff achieve their full potential;
- Cardiff is a great place to live work and play; and
- Cardiff is a fair, just and inclusive society.

4.8 It is important to recognise that the LDP cannot deliver all of these outcomes alone as many issues extend beyond land use planning matters and the remit of the document. However, the LDP is a crucial strategic document that must create the right conditions which both directly and indirectly assist and support the delivery of these outcomes.

4.9 Key priorities have been identified for each of the outcomes. These are:

People in Cardiff are healthy

- Reduce inequalities in health and address the differentials in life expectancy across the city;
- Promote healthy lifestyles and prevent ill health; and
- Improve effectiveness of our service delivery to vulnerable adults and children and young people.

People in Cardiff have a clean, attractive and sustainable environment

- Establish Cardiff as a sustainable 'Carbon Lite' city;
- Improve the quality of Cardiff's environment; and
- Establish Cardiff as a sustainable travel city.

People in Cardiff are safe and feel safe

- Ensure people are safe from harm, abuse and exploitation;
- Develop communities and neighbourhoods in Cardiff which are cohesive;
- Ensure people are free from crime and the effects of crime; and
- Ensure people are safe in their environment.

Cardiff has a thriving and prosperous economy

- Build strong futures for children and young people by focusing on education, training and employment opportunities;
- Improve opportunities for the creation of quality and sustainable employment; and
- Create an environment that develops, attracts and retains skilled workers, businesses and entrepreneurs to Cardiff.

People in Cardiff achieve their full potential

- Encourage active citizenship and participation in all aspects of life;
- Support vulnerable families and individuals to achieve and maintain their independence and ambition; and
- Support and provide access to appropriate learning and training provision for all.

Cardiff is a great place to live, work and play

- Provide the level of urban design infrastructure and connectivity required to make Cardiff a great place to work and do business;
- Support and maintain strong safe and sustainable neighbourhoods;
- Ensure the provision of high quality sustainable and affordable housing; and
- Develop world-class leisure cultural and sporting facilities – that reflect the wants of citizens and visitors.

Cardiff is a fair, just and inclusive society

- Enable all people in Cardiff to meaningfully engage and participate in decision making processes;
- Mainstream equality issues at strategic and operational levels; and
- Reduce inequalities through a joined-up, targeted approach.

Objectives

4.10 The LDP objectives set out in more detail how the LDP vision can be addressed through the planning system. They respond to spatial elements contained in the vision together with the economic, social and environmental strands set out in the strategic outcomes.

4.11 In spatial terms, the vision recognises the key role that Cardiff plays as being the heart of a thriving city-region. Over 74,200 people commute into the city each day (2010 Annual Passenger Survey) which demonstrates the important economic and social role Cardiff plays in relation to the wider region.

4.12 The vision fully recognises economic, social, environmental, as well as sustainability issues. It is the aim of the LDP objectives to respond to the evidenced economic and social needs but in a way that is co-ordinated, respects and enhances Cardiff's environment and sets out a framework for delivering the sustainable neighbourhoods of the future. This is delivering sustainable development locally: Improving the long term economic, social and environmental wellbeing of people and communities in Cardiff. In this way, the LDP can help create sustainable neighbourhoods that form part of a sustainable city that lies at the heart of a sustainable city-region.

4.13 The objectives are set out under 4 main headings:

- To respond to evidenced economic needs and provide the necessary infrastructure to deliver development;
- To respond to evidenced social needs;
- To deliver economic and social needs in a co-ordinated way

- that respects and enhances Cardiff's environment; and
- To create sustainable neighbourhoods that form part of a sustainable city.



Wales Millennium Centre and Pier Head Building in Cardiff Bay

1. To respond to evidenced economic needs and provide the necessary infrastructure to deliver development

1.1 To effectively respond to Cardiff's role as capital city for Wales, seat of the National Government and centre of the city-region in terms of providing a range and choice of economic opportunities that will drive the prosperity of the region.

1.2 To maximise the economic potential of the city centre of Cardiff as a major financial and service sector opportunity that builds upon its position next to a transport hub of national and regional significance and is readily accessible from all areas within the city and well connected to other UK cities.

1.3 To maintain and enhance the vitality, attractiveness and viability of the city centre as a major retail and cultural destination and as a place to work, visit and live.

1.4 To continue the successful regeneration of the Cardiff Bay area, maximising opportunities for quality commercial buildings and further development, particularly water and river frontage developments that can provide attractive and distinctive environments.

1.5 To promote clusters of specialist sectors and research & development expertise including the following key sectors:

- ICT;
- Energy and environment;
- Advanced materials and manufacturing;
- Creative industries;

- Life sciences; and
- Financial and professional services.

1.6 To ensure a range and choice of employment land and business premises at sustainable locations across the city is provided to assist economic competitiveness, encourage entrepreneurship, promote the growth of indigenous businesses of all types and size and attract inward investment.

1.7 To assist the promotion of Cardiff as a major tourist destination including the provision of the development of a variety of high quality tourist facilities and visitor accommodation.

1.8 To create a physical and economic environment that develops, attracts and retains skilled workers, businesses and entrepreneurs to Cardiff together with maximising links with Universities and supporting indigenous skills and enterprises.

1.9 To quantify critical strategic infrastructure required to realise development aspirations and set out clear mechanisms for delivery including sustainable transport solutions for strategic sites.

1.10 To establish Cardiff as a sustainable travel city by reducing the need to travel, increasing the use of sustainable travel modes and networks (particularly walking and cycling), decreasing private car use and improving the city's key transport hub based at the adjacent central bus and train stations.

1.11 To protect existing mineral resources and ensure an adequate supply of limestone aggregates in the north west of the city for the construction industry and to promote their efficient and appropriate usage, including the use of recycled aggregates where possible.

1.12 To support sustainable collection and recycling methods for Municipal Waste by maintaining and improving an integrated network of facilities in Cardiff.

1.13 To lead and participate in securing regional facilities for the sustainable treatment and disposal of Municipal Waste in accordance with the Regional Waste Plan and in a manner that follows the waste hierarchy which seeks to maximise the reduction of waste in the first place and thereafter reusing, recovering and recycling options before the disposal of waste material is considered.

1.14 To facilitate an integrated network of commercial and industrial sustainable waste management facilities consistent with the needs of the south east Wales area and in a manner that follows the waste hierarchy which seeks to maximise the reduction of waste in the first place and thereafter reusing, recovering and recycling options before the disposal of waste material is considered.



New Offices in Cardiff Bay

2. To respond to evidenced social needs

2.1 To provide new homes required to support the economic progression of the city and to respond to population change, continued in-migration and evidenced demand for affordable and family housing so that social needs can be addressed.

2.2 To provide a range and choice of new homes of different tenure, type and location that meets specific needs such as the provision of affordable housing, family accommodation, housing for the elderly, the disabled and students and pitches for the gypsy and traveller community.

2.3 To maximise the use of the existing building stock through refurbishment, retro-fitting and empty homes initiatives.

2.4 To bring about changes to Cardiff's environment and neighbourhoods that help to tackle health inequalities, promote good health and enable healthier lifestyles to be led by the city's population in line with Cardiff's status as a World Health Organisation, 'Healthy City'.

2.5 To bring about changes to Cardiff's environment that create a safer city and reduce the likelihood, fear and consequences of crime.

2.6 To create an environment that is made more accessible to all groups in society so that the employment opportunities, facilities and services of the city can be more readily used and enjoyed by all.

2.7 To maximise the multi-functional role played by Cardiff's parks, open spaces and allotments together with improving their accessibility for the whole community.

2.8 To recognise, support and enhance the key role played by existing District, Local and Neighbourhood Centres as accessible local hubs providing community services, local shops, healthy food choices, businesses, employment and access to public transport.

2.9 To support the regeneration of local neighbourhoods including reducing inequalities, particularly areas experiencing high levels of deprivation, areas vulnerable to decline and areas with opportunities for change.

2.10 To ensure that the necessary education and training facilities are provided and are accessible to all: to build strong futures for children, provide a diverse range of learning opportunities for all and assist economic progress through the development of required skills.

2.11 To develop new cultural, leisure and sporting facilities to meet needs and enhance Cardiff's role as a premier cultural and sporting destination.

2.12 To ensure that the necessary community and cultural facilities (community centres, shops with healthy food choices, youth facilities, child care, faith buildings, health centres etc) are provided that are accessible to all, especially in areas that are deprived.

2.13 To address rising unemployment and provide accessible local job opportunities, particularly in areas of greatest need.

2.14 To promote social inclusion equality of opportunity and access for all.



New housing development at the former Cardiff City Football Ground at Ninian Park

3. To deliver economic and social needs in a co-ordinated way that respects Cardiff's environment and responds to the challenges of climate change

3.1 To mitigate the effects of climate change through reducing energy demand and increasing the supply of renewable energy.

3.2 To ensure that Cardiff adapts to the full anticipated impacts of climate change and that new development and infrastructure is designed to be resilient to possible consequences.

3.3 To protect, manage and enhance Cardiff's natural environmental assets, including:

- The parks, open spaces and allotments in the city that are highly valued by local communities and an important component of Cardiff's quality of life;
- The strategically important river valleys of the Ely, Taff, Nant Fawr and Rhymney that link the city to the countryside and provide a valuable recreational, biodiversity and amenity resource;
- Cardiff's countryside, particularly its areas of high landscape value and the coast that provide an important setting to the urban area, provide an agricultural resource and opportunity for recreation;
- The city's biodiversity, its internationally, nationally and locally designated sites, wildlife habitats and features that

contain important species and networks that link together areas of value;

- Natural resources including geodiversity, the best soils, water and air quality including, the reduction of pollution; and
- The role that vegetation plays in combating climate change by providing shading, cooling and carbon sinks.

3.4 To conserve and enhance Cardiff's built and historic assets that define distinctive character and reflect its past development including:

- The city's 27 Conservation Areas;
- Its Listed Buildings and Ancient Monuments;
- Registered Historic Landscapes and areas of archaeological importance; and
- Other valued public places and spaces, including parks and amenity spaces, that provide local distinctiveness.

3.5 In identifying new sites to meet economic/social needs, to follow a sequence of firstly maximising the contribution of brownfield sites, then identifying greenfield sites that are considered to represent the most appropriate and sustainable locations to accommodate new development.

3.6 To have full regard to flood risk when considering the acceptability of development proposals and considering mitigation and adaptation measures.

3.7 To maximise opportunities to create a cleaner and more attractive environment that enhances the quality of life and helps

Cardiff to become a world-class European capital city.



Pontcanna Fields, Cardiff

4. To create sustainable neighbourhoods that form part of a sustainable city

4.1 To ensure that all new development areas (whether greenfield or brownfield) create sustainable neighbourhoods that follow the following principles:

1. Minimise energy demand and maximise renewable solutions- to deliver more energy-efficient neighbourhoods that utilise existing best practice and embrace new renewable technologies and concepts;

2. Minimise car travel, maximise sustainable transport use and decrease air pollution by creating accessible, permeable and legible places, preventing predominantly car-based developments and focusing new development in accessible locations which are linked to the strategic cycle network and can be served mainly by effective networks of sustainable transport- walking and cycling and fast and frequent public transport around and beyond the city;

3. Maximise recycling- to optimise the overall value of waste as a resource, to effectively plan for how new developments can sort and store waste for collection for onward productive use and minimise material needing treatment and final landfill;

4. Minimise water usage and maximise sustainable drainage- to carefully manage the consumption and drainage of water to avoid unnecessary wastage and minimise rapid run-off. To seek opportunities to maximise the positive amenity and biodiversity benefits that sustainable drainage solutions can offer;

5. Maximise the early provision of a full range of social facilities and community infrastructure- to provide the full range of necessary facilities that are accessible to all members of society and can be reached within a 15 minute walk. To include the range of social, health, leisure, education necessary for the scale of development proposed and also taking into account other needs within the wider locality;

6. Maximise the additional benefits that new communities can bring to adjoining or surrounding existing communities and minimise any potential negative impacts- to carefully identify positive contributions that can be made and involve local communities in this process;

7. Maximise the diversity of land uses within new development areas- to create more balanced communities offering non-car based options to fully participate in community life. To ensure a range and choice of housing tenures together with local employment opportunities and the full range of community infrastructure;

8. Maximise the contribution of networks of multi-functional and connected open spaces to strategically design networks of open space that are rich in biodiversity and provide safe routes between key locations to encourage healthier lifestyles through promoting walking and cycling. To further encourage healthy lifestyles by providing allotments together with the wider promotion of healthy eating;

9. Maximise the principles of good design- to create places that look good, are of an appropriate and efficient density, fully respect their local context and are successfully integrated with adjoining

areas. To design buildings that are resilient and can easily adapt to changing future needs. To design clean and attractive areas where people feel safe and have a sense of ownership; and

10. Maximise community involvement in the planning, design and future management/maintenance of new neighbourhoods. To use the master

planning process to establish robust design principles but to also recognise the need to allow some flexibility and managed capacity for change, particularly in larger development areas.

4.2 To take opportunities to apply the above principles to existing neighbourhoods in order to create a more sustainable city.



New housing development at Pontcanna

LDP Vision and Objectives



5.1 An important part of the plan-making system in Wales is the need to consider different options as an integral element of plan preparation. Different growth options have therefore been assessed relating to possible future levels of growth over the plan period. Guidance states that options must be realistic and sustainable. This rules out a 'zero growth' option as people are living longer, births are currently increasing and due to economic progression, people will continue to migrate to the county. Furthermore, the LDP must reflect the Vision and provide for Cardiff's social and economic needs.

5.2 Three potential growth options were prepared in spring 2011 and subject to a consultation process including public meetings in May/June 2011. The three options provided clearly different scenarios but it was made clear that the final chosen option could be one of these or a different figure if that was considered more appropriate. The consultation process findings together with wider work undertaken such as technical studies and SA/SEA have enabled consideration of the advantages and disadvantages of the options to determine the most appropriate level of growth for Cardiff.

5.3 The three options considered are set out below.

Option A: Based on the Welsh Government 2008 based population and household projections

- Plan will provide for about 54,400 new homes and 55,000 new jobs

Option B: Based on the Welsh Government 2008 based population and household projections but applying locally robust data to recalibrate these trend-led projections

- Plan will provide for about 45,400 new homes and 40,000 new jobs

Option C: Based on long term past rates of net migration rates and housing completions

- Plan will provide for about 36,500 new homes and 26,000 new jobs

Consultation and collaborative working findings

5.4 In order to inform the consideration of growth and spatial options a consultation exercise was undertaken between 9th May and 10th June 2011. This included a Stakeholder Conference, 13 public consultation meetings, Citizens Panel feedback together with wider representations made directly to the Council. Additionally, a Collaborative Officer Working Group was established to bring together local authorities and other relevant regional bodies to address

cross-boundary issues. Meetings took place between November 2011 and February 2012. A summary of its findings are included in Background Technical Paper No. 7.

5.5 The Stakeholder Conference considered the three different growth options with the 53 stakeholders recording their preferences and reasons behind them as shown in the table below. The 317 responses from the general public overwhelmingly favoured Option C with the degree of support varying as follows between the different formats. It should also be noted that 113 responses received from the general public favoured a level of growth lower than Option C.

Table 1: Responses to growth options

Format	Option A	Option B	Option C
Stakeholder Conference	51.6%	25.8%	22.6%
Public Events	6.2%	16.6%	77.2%
Representations	15.2%	9.1%	75.8%
Citizens Panel	11.0%	13.7%	75.3%

5.6 Background Technical Paper No. 6 outlines the reasons why different options were favoured. In summary, support for Option A focused on delivering social and economic needs (providing jobs, family homes and affordable homes), stimulating growth in Cardiff and the wider region together with delivering the official projection figures. In contrast,

those favouring Option C or lower pointed to the negative impact on Cardiff's environment, transportation network and communities together with diverting growth from the Valleys and the view that this was a more deliverable target as other options were not considered feasible. The main reasons for those supporting Option B included reference to this being a balanced and sustainable level based on a more robust assessment of the official projection figures together with it representing a balance between quality and numbers.

5.7 The regional collaborative working (summarised in Background Technical Paper No. 7) produced a degree of consensus regarding levels of growth. The general agreed view was that, based on the evidence of need and in order to meet its vision, Cardiff should go for a level of growth at the higher level of the range set out in the Edge Analytics report. This would be between Options A and B in the 2011 consultation. The neighbouring authorities recognise the benefits to them of a relatively high level of growth in Cardiff. They will provide for their own growth in their individual LDPs, and support a high level of growth in Cardiff to provide spin-off benefits for the region. Neighbouring authorities tended to support Option B whilst the House Builders Federation support Option A as a minimum.

5.8 All participants in the process recognised the important role that Cardiff plays as a driver of the

regional economy. The authorities in south east Wales recognised the benefits they derive from employment growth in the city. All participants supported a high level of economic growth and no-one disagreed with the view put forward by many that this should be Option A. It was pointed out that the number of jobs in Cardiff grew by 40,000 in the 10 years 1998-2008 and that a growth of 40,000 over the 20 year period of the LDP, 2006-26, was not wildly optimistic. It was noted that, in terms of sectoral growth, given the new impetus provided by the Cardiff Central Enterprise Zone, employment growth in Cardiff was likely to be predominately in the financial/professional services sector. By contrast, recent trends in the adjoining authorities had seen growth concentrated in the manufacturing sector. It was also agreed that the LDP had to plan for this level of economic growth and address the implications, specifically additional commuting into the city, essentially planning both for growth and its consequences.

5.9 The clear majority of the general public engaged in the exercise support Option C or lower whilst the development sector support Option A. However, the regional collaborative exercise containing different authorities and other relevant regional bodies reached a general consensus around Option B or above for housing and Option A for employment growth.

5.10 Many of the reasons for supporting Option C or lower were based on possible negative consequences of higher levels of growth. Indeed, the regional collaborative work also identified areas to address such as sustainable transportation solutions to effectively manage the delivery of growth in a sustainable way. Whichever option is progressed, the message emerging from the consultation responses which the plan strategy must address is how the desired level of growth can be effectively delivered in a sustainable way that does not have a negative impact upon the existing qualities of Cardiff. This is a key issue which must form an intrinsic part of the Preferred Strategy so that the plan as a whole represents a framework to deliver sustainable development: enhancing the economic, social and environmental wellbeing of people and communities and achieving a better quality of life for our own and future generations.

Assessment of options

5.11 At the outset, it must be stressed that all 3 options will involve the development of greenfield sites as there is insufficient brownfield land to provide for even the lowest level of growth set out in the options. In this context, it should be recognised that the LDP is the only opportunity to plan for the level of growth which is needed in a planned manner which avoids negative impacts upon its existing qualities.

5.12 The three options have been considered and a summary of findings is outlined below. A fuller explanation of both the growth and spatial options is contained in Appendix 3 of this document. Guidance states that the Welsh Government population and household projections should form the starting point for setting levels of growth in LDPs and makes it clear that any departure from these figures should be fully justified by demonstrable evidence. The summary therefore considers the options initially against the degree to which they meet the Welsh Government projections and then assesses against other factors based on national guidance as listed below:

- Accordance with Wales Spatial Plan and other key national policy and guidance;
- Cross-boundary/ city-region implications;
- Accordance with 'What Matters', the Community Strategy for Cardiff Council;
- Extent to which evidenced economic needs are delivered;
- Extent to which evidenced social/ housing needs are delivered;
- Environmental and climate change implications;
- Deliverability and capacity factors; and
- Consultation and collaborative working findings (outlined above).

Accordance with the Welsh Government Projections

5.13 Option A fully delivers the Welsh Government 2008 based population and household projections which have been prepared for the period 2008-33 representing a 42% increase in population over this period. The LDP covers the period 2006-26 which, based on these projection figures, would represent a 33% increase in the population in the city from 321,669 to 428,117 and require the construction of 54,400 homes over the plan period.

5.14 In order to explore the robustness of the official projections, the Council commissioned an independent expert of acknowledged UK standing to assess the methodology and data used and consider if there was an evidenced basis to justify a robust alternative scenario. This work was undertaken by Dr Boden of Edge Analytics and forms part of the evidence base for the Plan.

5.15 In summary, the independent expert analysis undertaken by Edge Analytics used the same high level data as the Office of National Statistics (ONS) but accessed more locally sourced data than that used by the ONS to inform future projection scenarios making the findings more reliable and robust. Overall, the expert analysis provided a strong evidence-based case for departing from the Welsh Government figures and concluded that the level of growth set out in Option A was not supported by a more rigorous application of

methodology and more locally robust data. Moreover, by recalibrating the high level core statistics using locally sourced data, the evidenced conclusions of the work supported a level of growth aligned to Option B.

5.16 The latest indicative mid year population estimates 2006-2010 issued by National Statistics on 17th November 2011 also support a lower growth rate for Cardiff than that indicated in the Welsh Government 2008 based projections. Furthermore, the 2011 census results for Cardiff issued in July 2012 reveal the number of households as being consistent with Option B.

5.17 Option C or even lower is not supported by the rigorous population methodology work undertaken. In terms of context, it should also be noted that Option C is significantly lower than the Welsh Government projection figures by some 17,900 new homes. The independent assessment of the LDP places significant weight on meeting official projections unless compelling evidence for departure is presented. In this respect, Option C cannot be justified in terms of population projection methodologies.

5.18 In conclusion, the analysis of projection methodology points to Option B as being the most reliable and realistic option.

Accordance with Wales Spatial Plan and other key national policy and guidance

5.19 The Wales Spatial Plan (South East Wales Update 2008) (WSP) recognises the key role that Cardiff should play as the centre of a networked city-region but also recognises the need to carefully balance growth in the coastal belt so that excessive growth does not divert investment from securing regeneration opportunities in other parts of south east Wales. The WSP also recognises the need for a more fully integrated transport system in south east Wales in order to deliver its wider objectives. The need to provide more sustainable communities is supported along with valuing the environment and respecting distinctiveness.

5.20 In terms of the policy direction set out in the WSP, there are concerns that Option C does not set out a sufficiently high level of growth for Cardiff to maximise its role at the centre of the city-region. However, the level of growth proposed in Option A is of such a scale that there are serious concerns that this may well prejudice the ability of other local authorities in the region to achieve their regeneration opportunities by diverting growth into the coastal belt. Option B proposes a level of growth which is considered to strike the appropriate balance. It maximises Cardiff's role as the centre of the city-region, providing a sufficiently strong 'economic powerhouse', but not to the extent

that may result in investment being too focused on Cardiff at the expense of other areas.

Cross-boundary/ city-region implications

5.21 As referred to in the section above, at the heart of this issue lies the careful balance that needs to be struck in reaching a level of growth which is right for Cardiff and also right for the wider region. Growth needs to be significant enough so Cardiff can help stimulate wider benefits and share prosperity around the region but not to the extent that it disproportionately draws in all investment and prevents regeneration opportunities in the surrounding city-region.

5.22 The Council has set up and recently undertaken dialogue with all local authorities in south east Wales together with other key relevant national and regional bodies to explore cross-boundary issues including the implications of different levels of growth on the wider region. The findings of this work are included as Background Technical Paper No 7 and further reference is made below.

5.23 This collaborative work has proved particularly beneficial in exploring the level of growth and the balance that must be reached between Cardiff and the wider region. As discussions progressed, a strong consensus emerged with recognition of the 'ripple effect' of benefits spreading from Cardiff to the wider area resulting from the market

investing in Cardiff. There was recognition that restricting growth in Cardiff in the hope of spreading investment to the Valleys was not likely to be a successful strategy. Evidence already shows difficulties in trying to attract the market into less attractive areas over recent years with significant public investment realising very few long term jobs. The very real danger of restricting growth in areas that the market finds attractive is that south east Wales as a whole may miss out on development; indeed, footloose investment may be discouraged from coming to Wales at all.

5.24 In summary, this process reached consensus from local authorities that the appropriate level of growth for housing should be Option B with the Home Builders Federation favouring Option A. Due to the strong role Cardiff played in providing jobs for the wider area, Option A was generally considered a more appropriate figure for the number of jobs to be provided.

5.25 Overall, Option B is considered to strike the appropriate balance and is of a sufficient scale to provide a genuine range and choice of economic and housing opportunities, but not at the expense of other local authorities in the city-region progressing their regeneration initiatives and delivering their aspirations. Option C is considered to fall short of providing the necessary stimulus. Option A may well result in too much investment being focused just on Cardiff at the expense of the wider region.

Additionally, it would place greater strain on a regional transportation system which is already experiencing capacity problems and runs the risk of promoting too much development, in too short a period of time, ahead of the realistic ability to put in place effective sustainable transportation solutions on a city-region scale.

Accordance with, 'What Matters', Cardiff's Community Strategy

5.26 The high level aspiration set out in, 'What Matters' is for Cardiff being, "a world class European capital city with an exceptional quality of life and at the heart of a thriving city-region". It also sets out other aspirations relating to social, economic and environmental outcomes which are summarised in Section 3, above.

5.27 Overall, Option B is considered to be most aligned to the Community Strategy. Whilst it provides fewer jobs and homes than Option A, it is not considered to possess the negative cross-boundary impacts associated with Option A in terms of drawing in too much growth to Cardiff at the expense of the region. Option C falls short of delivering the over-arching vision of the Community Strategy and meeting evidenced social and economic needs.

Extent to which evidenced economic needs are delivered

5.28 There is compelling evidence as set out in Appendix 2 and 5 of this document of the need for Cardiff to

provide a wide range and choice of jobs over the plan period. This is supported by strategic policies set out in the WSP together with, 'What Matters', the Council's Community Strategy which aspires for Cardiff to be at the heart of a thriving city-region. The strong economic performance of Cardiff compared to the wider city-region also underlines the importance of Cardiff continuing to drive prosperity for the benefit of south east Wales as a whole.

5.29 In conclusion, Option C does not fulfil the ambitions of south east Wales to perform competitively in a UK and international economic context. Both Options A and B are considered to represent a more suitable level of provision. Option A has the advantage of setting out the provision for more jobs but the provision of jobs in excess of the provision of housing could result in unsustainable levels of commuting. Option B strikes a more realistic balance and still provides a sufficient amount of jobs to provide a full range and choice of job opportunities.

Extent to which evidenced social housing needs are delivered

5.30 Cardiff needs to provide significant numbers of new houses, particularly affordable and family accommodation. Appendix 2 summarises some of the key facts relating to need. This level of need is compounded by the current lack of a wide range and choice of housing opportunities together with a limited supply- Cardiff only

currently has a 2.3 year supply according to the official land availability study

5.31 Option C is not considered to set out sufficient provision to meet housing need over the plan period given the current shortfall in provision and future population growth. Option A sets a level of provision which best meets the high levels of needs. However, it runs the risk of setting out a level of growth which could undermine other local authority areas meeting their housing targets and divert the market to the coastal belt, away from the Valley areas as referred to in the Wales Spatial Plan.

5.32 Option B is considered to represent a level of growth which can provide a wide range and choice of housing opportunities which responds well to housing needs but at an overall level which does not negatively impact upon the effective provision of housing sites across south east Wales. Given that current needs far exceed previous demand, it is entirely appropriate that a higher level of housing completions will be required, particularly since evidence also indicates a significant rise in population.

Environmental and climate change implications

5.33 Given the levels of growth set out in all options together with the finite brownfield capacity to provide land for homes and jobs, it is inevitable that all options would necessitate significant releases of greenfield

land. This will potentially have an impact upon Cardiff's environment and wider implications for climate change factors. However, whilst any loss of countryside to development would have some impact, different parts of Cardiff's countryside possess different intrinsic values, constraints and qualities. Brownfield sites can also possess high environmental value representing well used and popular local amenities within easy reach of homes. The priority of maximising the supply of suitable brownfield sites must therefore be carefully undertaken as insensitive selection of brownfield sites may have significant negative consequences for surrounding communities and the environment as a whole.

5.34 Whichever level of growth is selected, the plan will need to set out how impact upon the environment can be minimised and appropriate mitigation and enhancement measures incorporated into the overall strategy. In terms of the growth options being considered, the details of sites selected and possible mitigation measures would inform the detailed environmental consequences. It is therefore inappropriate to directly link growth with harm as the LDP provides the mechanism to manage impacts and effectively mitigate against potential harm.

5.35 In conclusion, the full consideration of environmental implications will inevitably reflect the site by site analysis which is set out in more

detail in the following section. This ensures environmental factors fully contribute to the consideration of options as more detailed site-based analysis provides evidence on the suitability of sites which, in turn, help inform capacity considerations considered below.

Deliverability and capacity factors

5.36 The ability to practically deliver the required number of jobs and homes included in the selected growth option is a relevant consideration in assessing growth levels as deliverability is a key test of soundness for the acceptability of the plan. Closely linked to this is the capacity of the area to accommodate the additional levels of growth including the timely provision of necessary supporting infrastructure, particularly transportation solutions.

5.37 Current economic conditions are not favourable for bringing forward new homes and creating new jobs in high numbers. However, the LDP must make provisions for the whole plan period and not make short-term decisions based on prevailing market conditions. Indeed, planning policy can play a key role in helping to provide a framework to tackle the current conditions and enable the future provision of jobs and homes which are needed in Cardiff.

5.38 Option A would involve completing 3,255 homes per annum for the remainder of the plan period (April 2012- 2026). This contrasts to the past 9 year completion rate of 1,587

dwellings per annum and the highest ever year in recent times of housing completions of 2,368 in 2006/07 (where approximately 70% were flats). This option would therefore represent a particularly high level of growth over a comparatively short period of time which raises serious deliverability concerns.

5.39 In contrast, Options B and C are considered capable of being delivered over the plan period. It is recognised that the level of housing completions in Option B is markedly higher than longer term past build rates (some 2,614 dwelling completions per annum for the remainder of the plan period) but this does not mean that it is not deliverable. A balanced range and choice of sites greatly assists delivery of provision over the plan period which can be controlled by setting out a trajectory of provision in the plan. They both represent levels of growth which can be accommodated in terms of existing capacities and sufficient candidate sites have been submitted to deliver this level of growth without the need to search for additional sites in areas raising significant environmental concerns. New developments will also provide the opportunity to bring forward new infrastructure not only to address on-site provision but also to help address the strategic provision of physical and social infrastructure which will bring wider benefits.

Overall Conclusions

5.40 Overall, Option B is supported by the strongest evidence. Importantly it is considered the most accurate projection-based scenario and the analysis set out above demonstrates that Option B can reasonably be considered overall to represent the most appropriate and balanced option compared to the other two options which both have significant drawbacks going right to the heart of the plan strategy.

5.41 There are compelling reasons not to support Options A and C. Evidence from the Edge Analytics report and indicative mid year estimates from ONS would indicate that the population projection basis for Option A is not robust. This level of growth within the plan period is considered to raise major environmental and capacity issues, particularly relating to transportation. Moreover, there are fundamental concerns regarding the practical delivery of such a high level of growth. In contrast, Option C's fundamental drawback is that it falls well short in delivering the evidenced need for new homes and jobs together with not delivering the Wales Spatial Plan and Community Strategy aspirations of Cardiff playing a key role as the centre of a thriving city-region.

5.42 The issues discussed in reaching this conclusion are also of wider relevance to the preparation of the whole LDP. It is important that the LDP sets out a strategy which not only indicates the appropriate level

of growth but also provides an overall package of allocations and policies which provide for this growth in a managed and sustainable way and which effectively addresses issues such as impact on the environment, delivering sustainable transportation solutions, together with representing a quantum of development which can be realistically delivered over the plan period.



6.1 Different spatial options have been considered to deliver the level of growth set out in the plan. The submission of candidate sites has helped to indicate the broad range of potential development areas. However, the plan may also include amended or different allocations to those submitted as candidate sites following the assessment process. The Preferred Strategy indicates strategic sites considered crucial to delivering the strategy. However, an indication will also be given of how it is intended to address the provision of non-strategic sites.

6.2 The consultation process on strategic options provided the opportunity to gather feedback on potential options and inform their assessment. The process documentation outlined the potential different scales of new development areas from smaller sites of less than 500 units to major sites of housing-led mixed use schemes bringing forward a minimum of 4,000 homes. It also explained that there were broadly 8 geographic areas where candidate sites had been submitted by developers:

- Dispersed brownfield sites;
- Greenfield sites west of Pentrebane;
- Greenfield sites south of Creigiau/ north of Junction 33;
- Greenfield site north of M4 at Thornhill;
- Greenfield sites west and east of Pontprennau;

- Greenfield sites around Old St Mellons village;
- Greenfield sites in the east- largely employment uses; and
- Dispersed smaller greenfield sites;

6.3 Given the scale of development being considered in growth Options A, B and C, it is inevitable that more than one of these areas is likely to contain sites allocated for development. Therefore, attention has also been given to considering the potential 'in-combination' effects of different candidate sites along with scope for enlarged or reduced candidate site areas.

6.4 With regard to potential 'in-combination' implications, the geographical proximity and potential combined impacts of nearby sites have been assessed, for example implications on local infrastructure and highways. Specifically, the following candidate sites have also been considered against the assessment criteria for 'in-combination' implications (in addition to being assessed individually):

(i) North west transport corridor- Candidate sites south of Creigiau, north of Junction 33 of the M4, sites to west of Fairwater and Radyr: All of these sites have direct access to Llantrisant Road (A4119) and therefore share the same transport corridor into/ out of Cardiff. Their geographical proximity may also have implications on the wider

consideration of social, community and physical infrastructure requirements;

(ii) **North east**- The combination of numerous candidate sites located between Lisvane and Pontprennau plus the site located east of the Pentwyn Link Road: All of these sites will impact upon transportation links between this general area and the city centre together with movements in other directions. Their location either side of the Pontprennau community merits a comprehensive consideration of infrastructure requirements together with addressing impacts upon the wider local area; and

(iii) **Old St Mellons Village**- A collection of relatively small candidate sites around the fringes of St Mellons Village which collectively amount to some 57.4 hectares in a broadly well-defined local area. All sites would access the same 2 local roads (Began Road and Druidstone Road) which merge together before crossing the A48 going south into the main urban area. There is considered clear merit in assessing the combined impacts on this well defined local area.

6.5 With regard to the consideration of larger or amended Candidate Site boundaries, account was taken of land ownership factors together with the characteristics of the surrounding area and any other wider relevant information. Candidate sites not containing clearly defined boundaries and/or having adjoining land in mutual

ownership were considered appropriate to further examine providing the expanded site was considered a realistic option and would not further exacerbate shortcomings highlighted through the assessment process. In this respect, the following enlarged sites were also assessed:

(i) **North west Cardiff submission extended slightly to the west upto Croft Y Genau Road**- Land within same ownership and taking development area to a more logical and well formed boundary to the west;

(ii) **Further permutations of extending north west Cardiff submission**- Exploring potential extensions to north (up to the M4) and significant extension to west covering land within the same ownership of the submitted site;

(iii) **Land north of Junction 33**- The candidate site submission refers to the potential to deliver more dwellings and it is noted the current north western boundary does not follow strong features on the ground offering scope for an alternative configuration;

(iv) **Cardiff Central Enterprise Zone**- Since the Candidate Sites were submitted, the Welsh Government have designated the Cardiff Central Enterprise Zone in April 2012. This covers a much larger geographical area than the 3 small candidate sites previously submitted in this vicinity and brings

together in a more logical fashion potential brownfield opportunities in this locality;

(iv) Land north of Junction

33/South of Creigiau- This a combination of candidate sites north of junction 33 and south of Creigiau. These sites have a direct access onto the M4 and Llantrisant Road (A4119) and therefore share the same transport corridor into/out of Cardiff. Their geographical proximity may also have implications on the wider social, community and infrastructure requirements; and

(v) Land south of St Mellons

Business Park- This a combination of candidate sites south of the existing St Mellons Business Park and east of the St Mellons housing estate which collectively amount to 95 hectares. The area straddles the main South Wales to London railway line and would share the same access via Cypress Drive to the A48. Their geographical proximity merits a comprehensive consideration of infrastructure requirements together with addressing impacts upon the wider local area.

6.6 Considerable effort has been made to assess the realistic contribution of brownfield sites beyond those submitted candidate sites. However, it must be recognised that brownfield land can continue to perform important roles such as acting as a valued resource for recreation, visual amenity, biodiversity and providing accessible local jobs.

6.7 Background Technical Paper No.10 sets out the findings of the work undertaken to calculate the realistic contribution from brownfield sites in more detail. It shows how a wide variety of different sources of potential housing supply have been explored such as proactive schemes to create new homes, looking at potential supply from empty homes, scope relating to vacant contaminated land together with establishing a realistic rate of windfall sites emerging over the plan period. Whilst this work has proved very useful in fully exploring the urban capacity of Cardiff, it has also served to demonstrate that there is a finite supply of brownfield sites. In this respect, it should be noted that an unrealistic and unjustified figure for the brownfield contribution to housing may lead to the LDP being considered unsound which is the situation which occurred with the previous LDP.

6.8 With regard to identifying potential additional greenfield sites, there are considered to be no further realistic options available given constraints to development within the administrative boundary. For example:

- **Flat Holm Island -** Remote, subject to numerous environmental and historic designations/ constraints;
- **St Fagans/River Ely Valley -** Subject to numerous environmental and historic designations/ constraints;

- **Garth Mountain and Lower Garth-** Forms part of strategically important backdrop to Cardiff, of high landscape value, containing extensive mineral reserves and forming a limestone aquifer; and
- **Caerphilly Ridge and land north of M4 from Tongwynlais to county boundary in the east-** Forms part of strategically important backdrop to Cardiff, much of high landscape, biodiversity and historic value.

6.9 The Council cannot allocate land for development in other local authority areas. Each local authority in South East Wales is preparing its own LDP. Some have already adopted their plans (see Appendix 2, Table 1). Given these plans have already allocated land to meet their own needs, there is no scope in practical or procedural terms to include land to meet part of Cardiff's requirement. Such an approach would be unsound.

6.10 The 8 spatial options contain all the submitted Candidate Sites and also include the 'in-combination' and extended Candidate Sites. The assessment process looked at sites within these potential development areas to see which best delivered the required level of growth. The assessment was based on 4 stages:

(i) **Site Categorisation-** Sorting sites by size, proposed land use and location (brownfield or greenfield);

(ii) **Considered against LDP vision and objectives-** Assessing degree to which the proposal delivered the agreed vision and objectives;

(iii) **Considered against the 5 assessment factors:**

- Environmental;
- Flood Risk;
- Transportation;
- Neighbourhood, Community and Place-making; and
- Infrastructure and deliverability factors.

(iv) **Input from other assessment processes-** Undertaking parallel iterative assessment processes including Strategic Environmental Assessment/ Sustainability Appraisal (SA/SEA), an appraisal in accordance with the Habitat Regulations, Health Impact Assessment and Equalities Impact Assessment. (In this respect, the SA/SEA analysis was undertaken in conjunction with the overall assessment of sites. The SA/SEA objectives were addressed as part of the analysis allowing input at an early stage).

6.11 The assessment process has been informed by a wide range of data, evidence collected, visiting the sites and considering responses collected following the strategic options consultation process.

6.12 The aim of the assessment process has been to identify the best way of delivering the required level of growth over the plan period. To

deliver Option B, this has involved proposing sites from a number of the 8 spatial options due to the significant scale of development required. Additionally, a range and choice of sites is recognised as being an effective method of meeting provision rather than restricting supply to limited options. Restricting supply options may risk failing to deliver the required growth if particular sites could not be implemented. A range and choice of both housing and employment opportunities provides a different 'offer' in terms of location and tenure/ type of development and allows a number of sites to be progressed concurrently but in an orderly and phased manner.

6.13 A summary of the main findings relating to these spatial options is set out below and a full table outlining the details of proposed provision is contained in the Preferred Strategy Section. Furthermore detailed information is contained in Appendix 6 which summarises strategic sites (larger sites considered crucial to deliver the preferred approach) and gives an indication of the potential contribution of non-strategic sites. Also, Background Technical Paper No. 8 provides a summary of the Candidate Site Assessment including the methodology and findings.

Brownfield sites

6.14 Twenty three candidate sites were submitted for residential development on brownfield land

representing a maximum potential contribution of approximately 1,944 homes. Candidate sites were also proposed for mixed use developments or commercial/industrial/other uses only. In addition to candidate sites, further work has also been undertaken to maximise the contribution of acceptable brownfield sites over the plan period.

6.15 The assessment process has concluded that apart from sites already granted consent or subject to Section 106 agreement (e.g. Bessemer Road Market), around 1,000 dwellings originating from the submitted candidate sites are considered acceptable in principle and respond well to the assessment process criteria. These include the former Gas Works at Ferry Road and redundant hospital buildings at Lansdowne Hospital, and redundant hospital buildings at Lansdowne Hospital, Canton. A full list is set out in Background Technical Paper 10 relating to Urban Capacity.

6.16 Additionally, wider work has been undertaken to establish the most appropriate rate of windfall provision over the plan period. This work has concluded that it would not be reasonable to assume the past 10 year rate of windfalls would prevail for the remainder of the plan period. In this respect, it is noted that the past 10 year rate was based on significant regeneration change of uses in Cardiff Bay which technically counted as windfalls. This scale of land use turnover is not envisaged to continue but work undertaken has

identified the scope for future windfalls at 40% of the past 10 year average windfall rate. This would bring forward approximately 8,634 additional dwellings as outlined in Background Technical Paper No. 10 Urban Capacity Study which provides further details. The overall brownfield dwelling contribution over the plan period therefore amounts to some 27,597 homes, approximately 60% of the overall housing provision.

6.17 In terms of other land uses, employment-led candidate site proposals on brownfield sites have generally performed well against the assessment criteria representing important sources of jobs in accessible locations. Notably, the Cardiff Central Enterprise Zone was considered to represent a highly sustainable location providing significant social and economic benefits for Cardiff and the wider region. Other sites considered acceptable include an extension to Cardiff Gate Business Park at north east Cardiff as part of a larger mixed use scheme.

6.18 Appendix 6 and Background Technical Paper No. 8 will provide a summary of the assessment of all candidate sites.

Greenfield Sites

Land west of Pentrebane

6.19 One major candidate site has been submitted in this locality but consideration has also been given to other smaller candidate sites

together with considering larger options on adjoining land as referred to in paragraph 6.5, above.

6.20 The assessment process has concluded there is merit in proposing a large comprehensive development area based on the major candidate site submission from Plymouth Estates (candidate site ref. 82) plus the adjoining candidate site submission (candidate site ref. 47) together with rounding off the development to a more logical boundary formed by Croft-y-Genau Road to the west.

6.21 This area provides an opportunity to deliver approximately 7,500 new homes and associated uses making a significant contribution to meeting social and economic needs with delivery assisted by the land largely being in control of a single owner. The land is not considered to possess any significant environmental or flood risk impediments which would prevent development. It is recognised that effective sustainable transportation solutions will be required to manage potential movement flows but the strategy proposed to address this is considered an appropriate response. Development of this large area and the provision of related infrastructure will be planned in close association with other development sites in the north west corridor as referred to in paragraphs 6.24-6.27, below. There are also considered advantages in terms of the scale of development being able to bring forward a comprehensive range of supporting social and community facilities.

Opportunities will also be taken to tailor provision of new community facilities in a way which is fully integrated with the needs of adjoining communities.

6.22 With regard to the consideration of more extensive development options, the assessment process concluded that the development of all Plymouth Estate land within the plan period was neither feasible nor desirable. The larger scale of development within such a relatively short time period was not considered a practical proposition with both the Home Builders Federation and landowners expressing serious concern over the ability to effectively deliver such a scenario. Similarly, the scale of development within such a limited time period would pose significant deliverability challenges. However, no fundamental environmental or flood risk concerns were identified.

6.23 Given the need for the plan to have some flexibility, should monitoring reveal a faster than anticipated take-up of land for housing development, the assessment has concluded that land between Llantrisant Road and the M4 offers potential for future expansion within the later stages of the plan period. Paragraphs 7.20- 7.21 refer to this aspect in more detail.

Land south of Creigiau/ north of Junction 33

6.24 Two candidate sites have been submitted in this vicinity but work has also been undertaken to assess

a slightly enlarged area based on mutually owned land forming more logical boundaries. The proposal south of Llantrisant Road is a mixed use proposal of housing, park and ride together with some employment uses. The proposal north of Llantrisant Road is for residential only.

6.25 The assessment process has demonstrated that these sites do not have significant environmental or flood risk implications which prevent their orderly development. Similarly, the sites are considered to be deliverable within the plan period. Together, given their critical mass, they can bring about improvements to the range of local social and community facilities offered to existing residents in Creigiau as well as providing facilities for new residents thereby reducing the need to travel.

6.26 Due to the relative isolation of the sites, away from the urban area of Cardiff, issues have been identified relating to the ability to achieve effective sustainable transportation solutions. However, the sites occupy a strategically important location in a well used transport corridor linking Cardiff with adjoining areas outside its boundaries to the north and west including Junction 33 of the M4. Significant infrastructure measures will be required to overcome the potential transportation challenges of this location and help address existing traffic flows in the north west corridor. This infrastructure would need to be provided in advance of the development and occupation of

the site and developed in conjunction with transport infrastructure associated with the North West Cardiff strategic site. The specific transport infrastructure requirements for this site would be determined through detailed master planning, but could potentially include:

- Provision of a strategic Park & Ride/Share facility accessed from Junction 33 of the M4 and Llantrisant Road (A4119);
- Development of a segregated/partly segregated public transport corridor utilising the former disused railway line south east of M4 Junction 33 in conjunction with the proposed development area west of Pentrebane and through to the city centre;
- Enhanced public transport linkages to areas beyond the county boundary of Cardiff into Rhondda Cynon Taff;
- Major improvements to M4 Junction 33 and Culverhouse Cross Interchange (although access to/from the site off Junction 33 may need to be restricted to maximise the effectiveness of other sustainable travel measures; and
- Other measures to minimise travel demand such as on site walking, cycling and community facilities.

6.27 Overall, the sites help to deliver the required level of growth and provide an important element of the wider

range and choice of housing and employment opportunities and are considered acceptable against the assessment criteria given the approach set out to deliver sustainable transportation solutions providing the above requirements are met.

Land north of M4 at Thornhill

6.28 One large candidate site has been submitted on land north of the M4 at Thornhill. It proposes development on the southern part of the site (approximately 1,200 homes and other uses) whilst leaving the northern part of land within the submitted boundary free from built development.

6.29 The assessment process has raised significant environmental concerns with the development of this area as it forms part of the strategically important green countryside backdrop to Cardiff on rising land north of the M4 currently free from any significant urban development. In this respect the M4 forms a particularly strong boundary to the urban area of Cardiff. The land to the north is distinctly rural in character, visually prominent in a strategic context with extensive views in and out over Cardiff to the Severn Estuary and beyond. Parts of the area also have recognised biodiversity and landscape importance further underlining the sensitivities of this area of land. However, no significant flood risk issues have been identified although

run-off into streams would require careful attention to manage downstream impacts.

6.30 In terms of the proposal set out in the candidate site submission, it is noted that the built footprint has been minimised to reduce potential environmental/visual impact but this has resulted in a limited scale of development which cannot reasonably be expected to deliver a full range of on-site social and community facilities. (Any larger built footprint would exacerbate environmental/visual impact by moving development further up the prominent slopes).

6.31 Given the fact that the site is relatively isolated from existing community facilities, located some distance away south of the Motorway, plus the lack of critical mass necessary to effectively deliver on-site provision, there is real concern that development of this area would not represent a sustainable solution. It is highly unlikely that an acceptable modal split could be realistically achieved and the area would be largely car-based contrary to current national policy and plan aspirations.

6.32 Overall, this site is not considered an acceptable solution. It crosses a particularly well defined urban edge penetrating into a strategically important and visually prominent green backdrop to the city which is of high intrinsic value. Additionally, the limited scale of development and its relatively isolated position present

significant barriers to achieving a sustainable form of development.

Land west and east of Pontprennau

6.33 A number of individual candidate site submissions have been made between Pontprennau and Lisvane together with a larger submission (candidate site ref. 112) collectively covering most of the area. To the east of Pontprennau, just one submission (candidate site ref. 72) has been made relating to land between the Link Road and River Rhymney. Overall, it is considered that this land could bring forward approximately 8,000 new homes and other uses with some 6,000 homes to the west of Pontprennau and approximately 2,000 to the east of Pontprennau.

6.34 The land between Pontprennau and Lisvane is not considered to possess any significant environmental or flood risk concerns which would prevent development. The area sits between existing communities south of the M4 and has no strategic landscape or visual importance in a city context. Natural features within the area such as the streams, woodlands and hedgerows could be effectively integrated into any new development through effective planning and design.

6.35 The large scale of the area provides the necessary critical mass and the opportunity to bring forward a full range of supporting social and community facilities. It also represents an opportunity to address

existing shortfalls in provision such as the lack of a Primary School in Pontprennau and limited public open space in Lisvane. Although ownership is not within single control at the present time, there is evidence that landowners are in liaison. It is important that an area of this scale is planned and delivered on a comprehensive basis so that the master plan, infrastructure provision and phasing is fully joined-up and not undertaken in a disjointed piecemeal manner.

6.36 There are considered to be potential sustainable transportation solutions to address movement patterns to, from and within the site. In particular, the site is well located in relation to the ability to extend bus routes into the area and linking with existing bus priority routes currently terminating at the nearby Pentwyn Park and Ride site. Further bus priority routes can be developed including segregated/dedicated rapid routes to offer public transport trips to key destinations.

6.37 Development of land east of Pontprennau will need to be comprehensively integrated with the sustainable transport infrastructure necessary to support development to the west. Transport measures would need to be provided in advance of the development and occupation of the site. Highway works and bus infrastructure would need to be integrated with the highway solutions/bus network improvements to the site west of Pontprennau.

6.38 However, the land east of Pontprennau is currently severed from the adjoining area and its community facilities and services by the busy A4232 dual carriageway. Overcoming the severance effect of the road will be key to ensuring that the site is integrated with the existing settlement and the residents are not dependant on their cars for access to local services and destinations further afield. It will also ensure sustainable transport provision of those without access to a car. Some provision of community facilities would also need to be provided within the site and it is noted the eastern portion of the site is set aside for a riverside park alongside the River Rhymney and would not therefore cause unacceptable flood risk or prejudice the area of gravel reserves located in the flood plain.

6.39 The most important environmental issue relating to land east of Pontprennau is considered to be the agricultural land quality. Whilst it is recognised that Cardiff possesses areas of the best and most versatile agricultural land on many of the candidate sites, this area contains the highest proportion. However, regard must also be made to the practical ability to maximise agricultural potential. In this respect, evidence presented has shown the difficulties in achieving agricultural potential in an urban fringe situation presenting challenges to quality production. Given the lack of other significant environmental concerns and avoiding built development in the River Rhymney floodplain, the

agricultural land issue is not considered to carry sufficient weight to preclude development given the evidenced need for a range and choice of new sites and limited scope within the city boundaries to deliver this.

6.40 The single ownership would assist delivery although infrastructure and transportation requirements will also need to be integrated with infrastructure within the development area west of Pontprennau.

6.41 In conclusion, the sites in this area provide an important element of the greenfield provision in the plan. No issues have emerged through the assessment process which justify preventing development in this area. However, to ensure effective delivery there must be a comprehensive approach adopted on both master planning and the provision of supporting sustainable transportation solutions and infrastructure including social/community facilities.

Land around Old St Mellons Village

6.42 Fifteen candidate sites have been submitted on land in the vicinity of Old St Mellons Village. The area is currently characterised by mainly linear ribbon development of large properties in large plots alongside three country lanes with fields beyond. Some infilling of gardens has taken place but development beyond the settlement boundary has largely been resisted to date. The whole area north of the A48 is of a different character to the larger

urban area of Cardiff located south of the A48 dual carriageway in this locality.

6.43 Parts of the area contain good quality agricultural land and there are also sand and gravel reserves which must be protected in the Rhymney floodplain (also a flood risk area). However, other fields do not possess the same degree of environmental constraints.

6.44 The most important overriding conclusion of the assessment is that this is a relatively isolated area with no notable existing social/community facilities. This area is only served by narrow lanes with no footpaths and there is limited scope to bring about improvements. To add additional development in this location is not considered to represent a sustainable solution and would be likely to be a highly car-based development. The area is remote from existing bus and rail provision and is not suited to be part of an extended service.

6.45 The disjointed nature of submissions further mitigates against the prospect of a comprehensive approach. However, even individual sites present the same difficulties with regard to acceptability against the principles of sustainable development.

Land at east Cardiff

6.46 Candidate sites for a variety of uses, but mainly for employment purposes, have been submitted around the eastern edge of the

urban area. Most of these sites are located within an extensive flat area known as the Wentloog Levels and forming part of a much larger landscape area stretching beyond Newport to the east. It is an area of land originally reclaimed from the sea in Roman times and is protected from tidal inundation by a sea wall.

6.47 This area possesses some significant environmental and flood risk constraints. In terms of environmental issues, the majority of the area is a Site of Special Scientific Interest with the reens forming the major interest. Additionally, the adjoining Estuary is a European designated site so run-off issues and disturbance will be particularly sensitive. The land also meets the qualifying criteria using the LANDMAP landscape methodology for Special Landscape Area status. Furthermore, there are significant historic interests and the land is designated as a Historic Landscape and Archaeologically Sensitive Area.

6.48 Flood risk is a major concern in this area. Considerable work has been undertaken to evidence the degree of risk in line with national guidance. The strategic flood consequence assessment work has analysed the risks when looking at the lifetime of different types of development and considering the likely probability of flood events in full accordance with national advice. This work has shown that most of this area is prone to flood risk with the situation becoming far more significant in

future years due to the impacts of rising sea levels through climate change.

6.49 The scope for mitigating the flood impacts generated by tidal inundation have been fully investigated with work on fluvial flood implications (from local watercourses) recently completed in late summer 2012. This work has shown that there is not considered scope with the context of TAN 15 on Flood Risk to be able to effectively mitigate risk in many low lying areas behind the sea wall and close to the mouth of the River Rhymney estuary.

6.50 However, the assessment reports undertaken by Atkins demonstrate that the flood risk can be effectively mitigated for a strategic employment site on land south of St Mellons Business Park (reflecting candidate sites submitted in this area). This can be achieved through a combination of raising the Sea Wall at points most prone to breaching together with raising ground levels on the development site. The costs associated with this work are not considered to undermine the financial viability of the proposal.

6.51 The Environment Agency (EA) has validated the methodology undertaken during this complex study. Furthermore, the EA are currently designing enhanced Sea Wall measures at one of the points referred to in the report and the possibility of joint funding would

improve the chances of securing Welsh Government funding for the project.

6.52 It should be stressed that an extensive area of land behind the Sea Wall is exposed to flood risk both in Cardiff, Newport and Monmouthshire, especially in future years when evidence points to sea levels rising. This includes existing properties, the main rail line into South Wales, power lines and undeveloped land, much of which forms part of the far wider Wentloog Levels Site of Special Scientific Interest (SSSI). Any significant flood event could therefore have profound implications (social, economic and environmental) which is why the aim of the Severn Estuary Shoreline Management Plan is to 'hold the line' in terms of flood defences in this area.

6.53 The social and economic benefits of delivering a strategic employment site in St Mellons would be profound. In a Cardiff context, it would represent a key strategic site by providing a well accessed and high quality site close to the strategic network. The site would add an extra dimension to the Cardiff offer in terms of office supply by adding to the range and choice of employment locations by providing a degree of flexibility in providing office jobs, a key element of the plan and a sector which Cardiff is uniquely placed within the city region to attract inward investment opportunities. Furthermore, its location adjacent to the main line offers the potential to develop direct rail links. Locally, the

site is highly accessible to areas of high unemployment and could be readily integrated into adjoining areas. The location of the site and the nature of the proposed development is likely to generate a large number of trips from outside the area. Addressing the impacts of these movements and minimising the proportion of them which would be made by car would require extensive (prior) provision of sustainable transport infrastructure in accordance with the transport policies in section 8. The details of such provision would need to be determined through the site master plan but could potentially include:

- Additional bus services between the site and city centre including express/limited stopping services; and
- Improvements to walking and cycling links to integrate the site with the surrounding settlement.

The technical and financial feasibility, and deliverability of a new rail station at St Mellons served from the relief lines would require detailed investigation.

6.54 Locally, the site is located near to residential areas of high unemployment and could be readily integrated with the existing St Mellons Business Park. In particular, this is a high quality site for existing businesses, who are looking to raise their added value, a key requirement for manufacturing companies if they are to grow and embed themselves in the local economy. Research has indicated that a high quality site (like

St Mellons) and buildings can attract both low value added users and high value added users. However, a low quality site and buildings can only attract low value added users. Having regard to size, location, proximity to other uses and access, the St Mellons site is particularly well placed in Cardiff to deliver this important role.

6.55 The land is currently used for agricultural purposes but is also designated as an SSSI for the reens together with fields which host invertebrates and bees. Furthermore, the area is noted for its high landscape and historic value. Development of this site, plus the raising of ground levels (excluding alongside main reens), therefore raise significant environmental issues which CCW tabled at the meeting referred to above. Nevertheless, it should be noted that the site in question only represents a particularly small percentage of the overall extent of the SSSI which stretches to Newport and beyond.

6.56 However, the social and economic benefits are considerable both in a Cardiff context and locally due to the location of the site near areas of high unemployment and could be readily integrated with adjoining uses.

6.57 Moreover, the development of this site will act as a catalyst to bring about the Sea Wall defence works which will help protect a much wider area. Indeed, the whole SSSI could be lost if inundated with sea water so an appropriate balance must be

made. Mitigation measures can be undertaken to reduce impact and in this respect account will be taken of the CCW Guidance Booklet on how to bring forward sensitive development in the Wentloog Levels SSSI.

6.58 In conclusion, taking all evidence and assessments into account, it is considered that the economic and social benefits of this proposal are considered to outweigh environmental disbenefits and in this respect it is noted that mitigation measures can be delivered to reduce harm. It is therefore proposed to include land south of St Mellons Business Park as a Strategic Employment Site in the Preferred Strategy document.

Dispersed smaller greenfield sites

6.59 A number of smaller candidate sites have been submitted on greenfield sites. Many, when considered in combination with other sites, have also been assessed having regard to their 'in-combination' effect. However, all individual sites have still been assessed on their specific merits. In this respect, their development in isolation from other adjoining sites has been considered as concerns can arise from piecemeal-type development which could prejudice the effective and comprehensive planning of a wider potential area and impact on the ability to achieve a satisfactory masterplan and orderly provision of infrastructure. Findings of the

Spatial Options

assessment of the smaller greenfield sites can be found in Background Technical Paper No. 8.



The Preferred Strategy

7.1 The Preferred Strategy reflects a full and careful consideration of all relevant factors as required by legislation. Previous sections of this document have provided a summary of factors which have been taken into account. These include:

- The national and regional policy framework;
- The Cardiff context- key economic, social and environmental data and issues;
- The Council's Community Strategy and approved LDP Vision and Objectives;
- Strategic growth options;
- Spatial options for locating new development.

7.2 Extensive work has been undertaken building up a comprehensive evidence base which has informed the plan. Full consideration has been given to the findings of the consultation process on the strategic options together with other dialogue, collaboration and liaison with a wide range of bodies in Cardiff and the wider city-region.

Overall level of growth

7.3 It is considered that the level of growth set out in Option B is the most appropriate level of growth for Cardiff. To deliver this level of growth, the plan must therefore set out a strategy to effectively make provision for 40,000 new jobs and bring forward approximately 45,400 new homes during the plan period 2006 to 2026. Further detail is provided in this Section on how this

will be achieved and this is reflected in the Strategic Policies set out in Section 8.

7.4 This level of growth falls below the 2008-based Welsh Government population and household projection figures which are the starting point for setting growth levels in LDPs. These figures show a 42% rise in Cardiff's population for the period 2008-2033 and a 33% rise for the plan period 2006-26. However, demonstrable evidence has been presented to justify a departure from these figures based on a more robust projection methodology using more locally sourced data. This has pointed to the level of growth set in Option B being a more robust projection based scenario, representing a 27% rise in Cardiff's population for plan period 2006-26.

7.5 Other factors have also been carefully considered. Overall, Option B is considered to most fully deliver the national policy framework, fulfil Cardiff's role as driver of the city-region and strikes the right balance between meeting evidenced needs but at a level which is deliverable and which respects environmental factors and responds to the challenges of climate change. It is considered that this level of growth provides the necessary stimulus to bring forward the jobs and homes which are urgently needed and wider aspects of the strategy show how this can be achieved in a sustainable manner.

Effectively responding to social needs

7.6 Cardiff is faced with significant social needs, particularly concerning the provision of housing. The city's population is projected to rise significantly over the plan period and the existing demand for housing, particularly affordable and family accommodation is extremely high. Coupled with this, parts of the city are among the most deprived in Wales and regeneration initiatives will continue to be required to support such communities.

7.7 The LDP strategy aims to effectively respond to these evidenced needs and make a realistic, deliverable housing provision. The provision of a range and choice of sites is seen as an integral element of this approach allowing a range of house types and tenures to become available in different geographical locations across the city.

7.8 Whilst brownfield sites have made by far the biggest contribution to dwelling completions in recent years, this has narrowed the range and choice of provision. Statistics show that provision has focused on higher density developments, mostly apartments in and around Cardiff Bay with more limited opportunities elsewhere. The low housing completion rates in recent years may in part reflect the wider economic climate but the lack of greenfield opportunities is considered by many to be a contributory factor to this situation.

7.9 Furthermore, there is a finite brownfield capacity in Cardiff. The last decade has seen significant brownfield developments, the most notable being the successful regeneration of Cardiff Bay. However, brownfield opportunities of this scale no longer exist. In fact there is a finite brownfield capacity in Cardiff. Research work has been undertaken to explore the possibilities of maximising the contribution of brownfield land to meet future provision. Background Technical Paper No. 10 sets out in detail the findings of this work and demonstrates the different potential opportunities which have been explored.

7.10 The Preferred Strategy recognises that there is a limited supply of acceptable brownfield land. The strategy also recognises that not all existing brownfield sites with planning permission will be developed due to changed economic/market conditions. These changed market conditions also mean that delivering previously anticipated levels of affordable housing may prove challenging due to current financial viability factors. This, in part, contributes to the current limited number of sites being brought forward for development from the landbank. Additionally, there are serious policy issues with losing further employment land of strategic or local importance to housing and it is not considered acceptable for the plan to propose building on river valleys, parks and playing fields.

The Preferred Strategy

66

Cardiff Local Development Plan 2006-2026 - Preferred Strategy Report

7.11 The Preferred Strategy therefore seeks to respond to need in a way which provides range and choice of land for housing. Maximising the contribution of brownfield sites still forms over half of the provision, but this is supplemented by a range of greenfield opportunities offering a range and choice and to provide a catalyst to help kick-start the currently depressed housing market situation. Greenfield sites generally have far lower site development costs/ constraints and are therefore widely recognised as providing far higher levels of affordable housing than brownfield sites.

7.12 The provision of a full range and choice of housing options also fully supports the delivery of the economic strategy- new homes and supporting community facilities can help attract new investment to the city and stimulate more movement in the housing market. Associated construction jobs would provide an additional benefit to the local economy. New Greenfield releases also bring with them the ability to contribute towards the wider provision of strategic infrastructure to the benefit of the city as a whole. The implementation of the sustainable transportation strategy set out below is linked with the development of greenfield sites but also brings with it wider benefits to the city as a whole.

7.13 The detailed breakdown of how it is intended to provide for the 45,400 new homes over the plan period is shown in Table 2. With regard to the anticipated contributions from

Greenfield sites, an analysis has been undertaken to establish potential constraints and other possible land uses to reach an estimated developable area. In all areas, it is clearly desirable to achieve the most efficient use of land and avoid inefficient and low-density developments. Mixed density schemes are considered most appropriate, providing a range and choice of housing types and providing highest densities adjacent to proposed and existing shopping centres and services and public transport corridors. A judgement has been made which represents a realistic estimate of likely housing densities based on the estimated developable area for housing. The consultation responses and further master planning will assist in working up final details should the sites be allocated in the Deposit Plan.

Table 2: Housing provision over the plan period

Table showing how the 45,400 dwellings required for Option B can be provided over the plan period (2006-2026)		
Row	Source of homes being provided, being taken out of calculations and net figures	No. of homes
A	Residential landbank as of 1st April 2012	
1.	Dwelling completions (April 2006- April 2012)	+8,299
2.	Dwellings under construction (1 st April 2012)	+819
3.	Dwellings with planning permission but not implemented (1 st April 2012)	+6,001
4.	Dwellings with a resolution to grant planning permission but awaiting a Section 106 Agreement to be signed (1 st April 2012)	+4,249
5.	Anticipated losses from rows 3 and 4: Evidence shows many sites will not be built out as previously planned with either reduced elements of housing and/or lower densities. (Estimate based on on-going site monitoring)	-1,694
6.	Net number of dwellings accounted for as of 1 st April 2012 (Rows 1,2,3,4 less row 5)	+17,674
B	Adjustments for changes to current dwelling stock	
7.	Demolitions of dwellings (2006-12=156. 2012-26 at past 9 year rate of 39.7 pa)	-711
8.	Change of use losses from residential to other uses (2006-12=40. 2012-26 at past 9 year rate of 8.1 pa)	-152
9.	Residential conversion gains- more dwelling units in existing properties (2006-12=432. 2012-26 at past 9 year rate of 65.7 pa)	+1,352
10.	Net number of dwellings sourced from adjustments to current dwelling stock (Row 9 less rows 7 and 8)	+489
11.	Overall number of dwellings provided from rows 6 and 10	+18,163
C	Additional dwellings from brownfield sites over the remainder of the plan period (April 2012-2026)	

The Preferred Strategy

Table showing how the 45,400 dwellings required for Option B can be provided over the plan period (2006-2026)

Row	Source of homes being provided, being taken out of calculations and net figures	No. of homes
12.	Dwellings included in expired planning consents which are considered acceptable in principle- to be shown as allocations in Deposit plan. Analysis on-going.	+300
13.	Change of use gains (other uses to residential) from 1 st April 2012 onwards – Assumes these come forward at past 10 year rate at 148.2 units pa (minus sites subject to Section 106 Agreement of 34 units to avoid double counting).	+1,915
14.	Brownfield windfall sites from 1 st April 2012 onwards (excluding 2036 units subject to signing of Section 106 Agreement and units already listed in row 13 to avoid double counting) based on 40% of 10 year past rate 625.3 pa over the remaining 14 years of the plan period. Provided by natural turnover and specific Initiatives such as: <ul style="list-style-type: none"> i. Dwellings which may be brought forward through the first phase of the Council's Partnering Scheme (net gain approximately 450 units); ii. Future phases of Cardiff Partnering Scheme; iii. Dwelling gains as a result of Schools Operational Plan implementation; iv. Dwelling gains through consolidation of Council properties and partnership working with other bodies; and v. Small brownfield sites emerging from urban capacity work and candidate site assessment. 	+6,719
15.	Additional dwellings from strategic brownfield sites over the remainder of the plan period (April 2012-2026) – Gas Works, Ferry Road	+500
16.	Net number of additional brownfield dwellings (Total of rows 12-15)	+9,434
17.	Total dwelling provision from all rows above (row 11 +16)	+27,597
D	Additional dwellings from strategic greenfield sites over the remainder of the plan period (April 2012-2026)	
18.	North east Cardiff	+6,000

Table showing how the 45,400 dwellings required for Option B can be provided over the plan period (2006-2026)

Row	Source of homes being provided, being taken out of calculations and net figures	No. of homes
19.	East of Pontprennau Link Road	+2,000
20.	North west Cardiff	+7,500
21.	North of Junction 33	+2,000
22.	South of Creigiau	+750
23.	Total of rows 18 to 22	+18,250
24.	Overall provision (row 17+23)	+45,848

7.14 This strategy shows how provision can be provided over the plan period. A full phasing and infrastructure plan will be prepared as part of the Deposit Plan which will show a trajectory of provision over the plan period. This will provide an overarching framework for sites coming on stream and ensure that supporting transportation, social and community infrastructure are provided in a synchronised manner in advance of developments. Detailed requirements of statutory providers will help inform precise details of site development along with assessing key thresholds for the provision of facilities. The in-combination effect of nearby sites will be fully addressed through this work to ensure delivery on the ground. The trajectory of provision will also seek to bring forward brownfield land at the earliest possible opportunity to deliver regeneration objectives.

7.15 Current evidence supports a phased release of sites over the plan period focusing initially on the strategic sites which can be most readily served by appropriate infrastructure, particularly the timely provision of sustainable transportation solutions ahead of the impacts of new development upon the transport network.

7.16 In this respect, the large strategic site at North East Cardiff offers a sufficiently large quantum of development and, together with its location in relation to potential off-site sustainable transportation solutions, offers the most realistic prospect of early delivery. Similarly, the large strategic site at North West Cardiff offers a similar benefit of a large quantum of development to generate strategic solutions but is considered to require the provision of more significant infrastructure per se, and transportation infrastructure in particular which will be required ahead of development. The smaller

The Preferred Strategy

and more peripheral greenfield sites will require significant strategic infrastructure, particularly relating to sustainable transportation solutions, to be delivered as part of the comprehensive development of the two larger greenfield strategic sites.

7.17 Further evidence relating to the provision of infrastructure will inform the specific timing of infrastructure to be set out in the Deposit Plan. Consultation findings and the masterplanning process will also prove valuable tools in considering the most appropriate approach to adopt.

7.18 The infrastructure plan will set out the key necessary infrastructure requirements to ensure effective delivery of the LDP. A Community Infrastructure Levy (CIL) will be set indicating the required financial contribution from developers to help fund infrastructure provision. The CIL will be progressed in tandem with the LDP and be subject to its own independent examination. Additionally, for matters not addressed by the CIL, Planning Obligations will be used to help bring forward local infrastructure. More detail on the elements of infrastructure and other works and measures related to sites which will be sought by the Council are set out in Strategic Policy 20 below.

7.19 The strategy is considered sufficiently flexible to respond to changing conditions. This will be highlighted in the Annual Monitoring Reporting process allowing future reviews to address the need for

change. Should demand be lower than anticipated, the sequence of provision will remain in place, thereby controlling development in an orderly manner and linking it in with infrastructure provision. However, this scenario would result in the trajectory being followed over a longer period allowing either plan review or the next plan to make appropriate judgement on future provision at that time.

7.20 Consideration also needs to be given to demand being higher than expected. This is considered to be a less likely possibility, based on current evidence of low completion rates and the challenging economic conditions. The current low annual completion rates will add to the future required annual completion rates over the remainder of the plan period to meet the requirement and there is no evidence to date of an imminent change in the national economy. Therefore, it is considered inappropriate to allocate for a flexibility allowance of up to 10% (representing a large figure given Cardiff's housing requirement) as this may well create an over-supply of residential land on Greenfield sites.

7.21 If a need is identified in the Annual Monitoring Report before the end of the plan period additional land can be brought forward for residential purposes at that point in time in a plan review. The assessment of spatial options has helped establish the areas considered most suitable for development and has examined linkages between sites. This work

has shown greatest merit for an additional housing area if it is required, as being land adjacent and north west of the west Cardiff site (candidate site ref. 82) as indicated by the arrow on the key diagram. Infrastructure and phasing of adjoining areas will take account of this possibility so should the need arise, phased provision of this land at the end of the plan period could be delivered and included in a preceding plan review.

7.22 With regard to responding to wider social needs, the Preferred Strategy maximises its ability to help create more sustainable neighbourhoods, tackling inequalities and assisting regeneration opportunities. The important role of District and Local Centres will be supported in providing an accessible location for the provision of a wide range of local services and hub for local community interaction. Additionally, the strategy seeks to encourage safer communities by making improvements to the design and layout of areas.

7.23 Tackling deprivation is a fundamental theme running through the strategy and is reflected in the strategic policies relating to the provision of 40,000 jobs and 45,400 new homes to respond to housing needs. The protection of existing local employment areas located close to existing areas of highest deprivation is also an important part of this approach. Furthermore, the role of continued regeneration activity in areas of most need is

recognised and new initiatives are supported to encourage the benefits they bring to local communities.

7.24 The development of a safer, more accessible city which encourages healthy living is also promoted by the strategy. This is consistent with the approach to delivering sustainable transportation solutions and supporting District and Local Centres. Also, to encourage the full provision of social infrastructure, support will be given to the provision of cultural and sporting facilities providing benefits for local residents as well as Cardiff's 'tourism offer'.

Effectively responding to economic needs

7.25 The strategy responds to Cardiff's role as the main economic driver in south east Wales and operates as a city-region which effectively increases the population to around 1.4 million reflecting its position as capital of Wales and seat of Welsh Government and accounting for 32% of total employment in south east Wales. The strategy delivers the strategic aspirations for economic development in Cardiff through the identification and protection of employment land and premises and opportunities to deliver the key economic growth sectors relating to ICT, energy and environmental technologies, advanced materials and manufacturing, creative industries, life sciences and financial and professional services. This strategy sets out how the forecast 40,000 new jobs are planned to be provided for over the plan period.

The Preferred Strategy

72

Cardiff Local Development Plan 2006-2026 - Preferred Strategy Report

7.26 At the heart of this approach is recognition that the Cardiff city-region clearly forms a natural economic area and it has consistently made a major positive contribution to the economic growth of Wales. In Core City analysis, Cardiff performs well and there is an opportunity to build further on this through continuing to enhance Cardiff's role and also improve linkages and connectively within the city-region. It is also recognised (as evidenced in the recent Cardiff LDP regional collaborative working exercise summarised in Background Technical Paper No. 7) that there are significant benefits for adjoining areas from Cardiff's success in achieving economic growth.

7.27 The economic strategy for the LDP supports inward investment and new business requirements through striking a balance between the supply and demand for employment land and continuing to provide a diverse range of job opportunities. Critical to the economic strategy for the city is an appreciation of the changes in population, labour market and employment base together with achieving the appropriate balance between the provision of new jobs and homes. Background Technical Paper 11 provides detailed evidence on how such matters have been addressed.

7.28 A number of key issues and messages emerge from the supply and demand studies outlined above which have implications for Cardiff's economic performance and therefore are critical elements of the

economic strategy for the LDP. The evidence points to the need for a strategy that addresses these three issues:

- Providing a range and choice of new employment land;
- Cardiff Central Enterprise Zone as a core element of the strategy; and
- Recognising the role of existing employment land and premises.

7.29 In terms of providing for new employment land, the strategy sets a framework for delivering a wide range and choice of employment sites in different locations and for different sectors including the key market sectors of ICT, energy and environmental technologies, advanced materials and manufacturing, creative industries, life sciences and financial and professional services. The range of new sites ensures that Cardiff can deliver the stated level of growth for new jobs. Importantly, different sites will perform different roles in the strategy. For example, land at Junction 33 may be better suited to ICT, life sciences, energy and environmental technologies whilst Roath Basin could become an important location for media and creative industries.

7.30 The provision of employment land as part of wider housing-led comprehensive developments at north west Cardiff, north east Cardiff, Arjo Wiggins and Roath Basin provides an important role in terms of the overall supply and mix of employment land offering a good

range and choice of small out of centre employment sites, including offices, creative industries, small workshops, and starter units. This will be essential to ensure the continued provision of local employment opportunities and address the geographical employment disparities across the county.

7.31 The geographical spread of the 'Cardiff offer' also addresses the need to provide jobs in accessible locations. In this respect, the key strategic proposal relating to the Cardiff Central Enterprise Zone and Regional Transport Hub represents a highly sustainable and accessible location, close to areas of high unemployment in the city but also readily accessible to the wider region via sustainable modes of transport.

7.32 This key site is an integral part of the Council's economic vision to establish Cardiff as a leading European business city over the next two decades and will underpin and promote the financial and professional services sector and create a platform for investment. It will greatly assist promoting Wales' share of UK inward investment which has fallen from previous rates of 20% to just 2%. Furthermore, the scale of this proposal relating to Grade A office space is potentially a real 'game changer' for Cardiff and Wales to compete more effectively with other UK cities.

7.33 It is a long term proposal which seeks to revitalise up to 140 acres of brownfield city-centre land adjacent to Cardiff Central railway station. It will focus on enhancing Cardiff's growing reputation as a finance and professional services cluster and is a key sustainable regeneration project. Integrated transport sits at the heart of the Cardiff Central Enterprise Zone with Central Square becoming the hub of the Enterprise Zone. The proposal represents the next phase of redevelopment of Cardiff city centre and aims to create a modern and high quality gateway to the city whilst extending the function of the city centre south of the railway line, creating a better link between the city centre and Bay and a provide a new convention centre to attract business, tourism and promote the city for business. The Cardiff Central Enterprise Zone is one of 7 new Enterprise Zones in Wales designated by the Welsh Government and the only Zone in the focused on financial and professional services. The Zone came into effect on 1st April 2012 and has a lifespan of 5 years.

7.34 It is important to ensure that a range and choice of employment land and business premises are provided to maintain and improve the competitiveness of the city, promote and protect indigenous business and attract inward investment. There has been growing pressure over recent years for the development and redevelopment of employment land and premises for alternative uses

The Preferred Strategy

(predominantly residential), whether still occupied or where current operations have ceased, which offer a greater level of return for investors. Such development proposals can result in significant losses to the county's stock of employment land and premises.

7.35 The loss of employment land can be incremental with the loss of one site setting the precedent for the loss of a series of others in a similar location, leading to a gradual erosion of an employment area. Sometimes alternative uses can also fragment a larger business area or sever links between employment uses in an area. Over time pressure for alternative uses result in a cumulative loss of employment sites to the detriment of the local economy. In addition many existing industrial areas are located within the southern arc of deprivation in areas of greatest need for jobs and it is important to retain employment in these locations due to their accessibility.

7.36 The strategy seeks to protect existing and industrial warehousing land (B1b/c, B2 and B8 uses) to ensure their continued important contribution to providing accessible sources of employment in the city. Similarly, there will be a strong presumption in favour of retaining existing high quality and accessible office accommodation. However, consideration will be given to the change of use (to housing for example) of lower quality office and industrial premises which do not perform an important strategic or

local role in terms of the overall range and choice of premises. Where alternative use of land is considered appropriate, priority will be given to mixed-use development comprising employment, housing and community facilities or, where that is not feasible, housing. (This policy position will also help to support future windfall provision over the plan period) Other proposals will need to demonstrate why a mixed-use of housing and employment schemes cannot be achieved on a site.

7.37 In addition, in order to maximise the contribution to providing jobs from existing sites and promote the efficient use of land, the strategy seeks to encourage the intensification and refurbishment of existing employment land and premises which are under used, vacant or in decline. The Strategy supports the regeneration of land and property for employment purposes such as Mount Stuart Square as a focus on innovative business.

7.38 With regard to managing waste, Cardiff produces around a million tonnes of waste each year, varying from harmless inert materials to highly toxic chemical by-products and residues. It is important for the Council to manage the land use implications of this waste in an environmentally acceptable and sustainable way. The Council is moving towards more sustainable waste management practices in line with European and national guidance, by increasing the amount

of municipal waste recycled or composted and reducing the amount of biodegradable waste sent to landfill. Additional treatment facilities are likely to be required within the Plan period in order to achieve these aims. In 2008 the South East Wales Regional Waste Plan indicated that a maximum of 20.9 hectares of land will be required for waste management facilities within the county. New waste management facilities will generally be favoured on B2 land for general industry, in line with national guidance. Since 2008 planning permission has been granted for a range of facilities in the county, including a regional energy from waste plant at Trident Park and any remaining facilities required during the plan period will be accommodated within the existing industrial areas identified in the employment land review set out above.

7.39 The strategy also supports maintaining an adequate and steady supply of minerals which is essential to the national, regional and local economy and their exploitation makes a significant contribution to our economic prosperity and quality of life. Cardiff is one of the largest producers and consumers of minerals in the region and those worked in Cardiff at present provide the essential raw materials for our buildings, infrastructure and maintenance. Given this the strategy seeks to promote and support the efficient use of minerals and use of alternatives to naturally occurring

minerals including the re-use of secondary aggregates, protect existing limestone mineral reserves and potential resources in the north west of the County and maintain a 10 year land bank of permitted aggregate reserves.

Delivering sustainable transportation solutions and providing infrastructure

7.40 A strategic approach has been adopted to minimise car use, maximise journeys by sustainable transportation and improving connectivity between Cardiff and the wider city-region. Through measures set out in the LDP together with other non land-use based initiatives, the Plan seeks to achieve a 50/50 split between car-based and non car-based travel. This is not simply a policy aspiration; local knowledge of the transportation network and research of travel behaviour, patterns and trends in combination with modelling work carried out by the Council has shown that achieving this ratio is necessary for the transport network to accommodate movements associated with the growth envisaged within this plan in a way which avoids unmanageable levels of road congestion and large scale expansion of the city's road network which would both be unaffordable and contrary to the sustainability objectives of the Plan and national planning policies. Measures are based around the following three main themes:

The Preferred Strategy

Network management - Using a range of measures to make best use of the existing network and improve facilities and accessibility for all modes of travel and, in particular, for alternatives to the car;

Demand management - Introducing a range of measures to reduce the demand for travel overall and limit car use where appropriate; and

Widening Travel Choices - Ensure that a range of practical and attractive travel options are available for most trips and that people know about them.

7.41 It is proposed to maximise the role of public transport and minimise reliance on the car. Key to this will be the provision of essential sustainable transportation infrastructure in advance of developments. Prior provision of this infrastructure will ensure that sustainable travel patterns become established and embedded from the first occupation of new developments. Developers will need to be firmly committed to the provision of transport infrastructure in advance of developments and, where necessary to make this happen, to active collaboration with other developers.

7.42 With regard to bus travel, the aim is to extend and enhance the city's bus network. Currently buses provide good connectivity to the city centre from various locations of the city. However, extension of the bus network is required to make bus an

attractive travel option from all areas of the city to a much wider range of trip destinations. For example, segregated/dedicated rapid routes can provide much improved connectivity between new and existing areas and with the rail network. Further reallocation of road space and changes to key junctions will be essential in order to provide bus priority on key corridors and make buses a practical and attractive alternative to the car. The additional advantage of this approach is that bus routes can permeate effectively into new development areas and also pick up additional patronage from existing areas along the routes, whilst providing the option for express services serving both existing and new suburban locations. A new transport interchange will be provided adjacent to the Central Station and Local Public Transport Hubs will also be developed enabling cross-city movements to be made more easily. Furthermore, bus corridors will be designed to extend out to the sub region connecting with existing and future Park and Ride/Share Schemes and encouraging modal shift outside the county boundary.

7.43 Railway links also form an additional element to promoting sustainable travel solutions. The aim is to take advantage of and encourage further enhancements to the railway network linking Cardiff to the city-region and beyond. Rail infrastructure investments such as the recent announcements of the

electrification of the Great Western Main Line to Cardiff and South Wales Valley Lines have been widely welcomed, but there is a recognition that further infrastructure improvements need to be considered in order to cope with future demand. The Council will continue to actively liaise with Sewta, other authorities and the Welsh Government to bring out further enhancements to the railway network in the city-region and also address more effective and integrated links between rail and other forms of sustainable travel.

7.44 Park and Ride/Share schemes will contribute to the delivery of the overall strategy. Currently, the highway network is operating under considerable pressure from heavy vehicle usage, particularly in peak periods. The heart of the city centre is where the congestion is most concentrated but other congestion points exist around the city where cars are creating disproportionate levels of carbon emissions.

7.45 In the right locations, bus based Park & Ride/Share schemes can help to alleviate some of the pressure on principal routes and key junctions by intercepting inbound car traffic on key road corridors. Cardiff is keen to develop and promote Park and Ride/Share schemes particularly in the city-region and in particular with Sewta/neighbouring authorities to intercept regional car movements on key road corridors into the city thereby reducing car movements across the county boundary.

7.46 Rail based Park & Ride facilities also have a role to play in minimising car trips into Cardiff from the wider region. Cardiff will work closely with Sewta/neighbouring authorities to identify further opportunities for rail based park and ride provision in the city-region, taking account of passenger demand and rolling stock capacity.

7.47 Cardiff is well placed to effectively encourage far greater cycling and walking as an alternative to local car trips. The city's large green parks and easy gradients together with the relative compactness of the city should make cycling an extremely attractive option for residents, commuters and visitors. A Strategic Cycle Network Plan is already in place setting out strategic routes together with numerous linkages beyond. A new Cycle Design Guide has also been developed which sets out best practice in the design of cycle facilities. It is essential that developments brought forward during the Plan period take advantage of these positive attributes. Developments will need to provide safe and convenient connections to the existing Strategic Cycle Network. They will also be required to facilitate extensions to the network by incorporating both formal and informal cycle routes within development layouts along cycling 'desire lines' and making internal roads and spaces cycle friendly.

7.48 The health and wellbeing benefits of cycling and walking must also be fully recognised. Therefore, full

The Preferred Strategy

account will be taken of the needs of cyclists and pedestrians in the design and master planning of new development areas along with consideration of other development proposals emerging over the plan period. Policies in the Plan will seek to resist developments which give priority to motorised vehicles at the expense of non-motorised road users. In this regard the Plan will seek to support developments which reflect the road user hierarchy and broader design principles advocated in DfT Manual for Streets/Manual for Streets 2 and other relevant guidance.

7.49 Travel Plans will be used to maximise sustainable transportation schemes in all significant developments. Solutions may vary depending on the individual factors relating to each proposal but the overall aim will be to maximise as much as possible non car-based travel options as a means of travel.

7.50 The recent opportunities opened up by the Cardiff Central Enterprise Zone designation strengthen the need to provide additional strategic highway capacity and provides a new impetus for funding. Given this, the Council, working with the Welsh Government and other stakeholders will actively pursue the delivery of the Eastern Bay Link and Ely Spur Road.

7.51 These are long standing proposals contained in the extant Regional Transport Plan and can deliver considerable transportation benefits and create additional capacity on the

strategic highway network and help address the additional traffic arising from the level of growth proposed in the Plan. Further work needs to be undertaken in pursuing these two schemes in terms of their sustainability, delivery and benefits. Subject to the outcome of the assessment processes they will be taken forward as part of the Deposit Plan.

Respecting environmental interests and responding to climate change

7.52 The Preferred Strategy sets out a way of meeting development needs which respects the most important features of Cardiff's natural environmental assets. Development areas avoid European designated sites of biodiversity importance and furthermore, large tracts of countryside and strategic river corridors running through the urban area amounting to well over 5,500 hectares will be kept free from development with policies in place to protect, manage and enhance their contribution to the city. The strategically important ridge north of the M4 will be protected and continue to form a highly important green backdrop to the city, along with other areas of countryside.

7.53 Five Special Landscape Areas have also been proposed in recognition of their high intrinsic value where the retention, management and enhancement of their particular qualities will be promoted. These will compliment other existing designations such as Local Nature Reserves and SINCs (Sites of

Nature Conservation Importance) which are distributed around the city in both the countryside and urban area. The strategically important four river valleys of the Ely, Taff, Rhymney and Nant Fawr are also recognised with policies designed to further enhance their multi-functional roles including the further enhancement of the strategic recreational routes. These corridors help deliver wider plan objectives relating to healthy living, sustainable transport options in addition to biodiversity, recreational and visual amenity roles.

7.54 The protection, management and enhancement policies set out in the strategy afford protection to areas of countryside beyond the urban edge. The strategy does not include a formal Green Belt designation which would have permanence well beyond the plan period. However, feedback is specifically sought on the merits or otherwise of Green Belt protection through consultation on the Preferred Strategy. The feedback from this process will assist consideration of this matter in the preparation and approval of the Deposit version of the LDP.

7.55 The important contribution that open spaces make to the city are also fully recognised. The strategy supports the retention of parks, open spaces and allotments. Such areas provide a highly accessible community resource in addition to their more strategic role of forming 'green lungs' within the city.

7.56 Significant work has been undertaken to assess flood risk in Cardiff in full accordance with national guidance. This has shown that Cardiff has significant flood risk in some areas, both fluvial and tidal. This has impacted on the consideration of possible development sites and resulted in some potential sites not being proposed for development due in full or part to unacceptable flood risk. Due to the impacts of climate change, the probability of flood events will increase and the strategy therefore seeks to avoid locating development in areas of unacceptable flood risk, both at this point of time and looking ahead for the lifetime of developments unless effective mitigation measures can be demonstrated in accordance with TAN 15. The need to manage surface water run-off in new development will also be carefully addressed to avoid creating downstream issues caused by rapid run-off.

7.57 The rich and diverse heritage assets of Cardiff are fully taking into account in the strategy. Existing historic related designations have helped inform the identification of potential development sites and policies will be in place to ensure high quality design in future developments and Cardiff's unique distinctiveness is retained.

Delivering sustainable neighbourhoods within a sustainable city

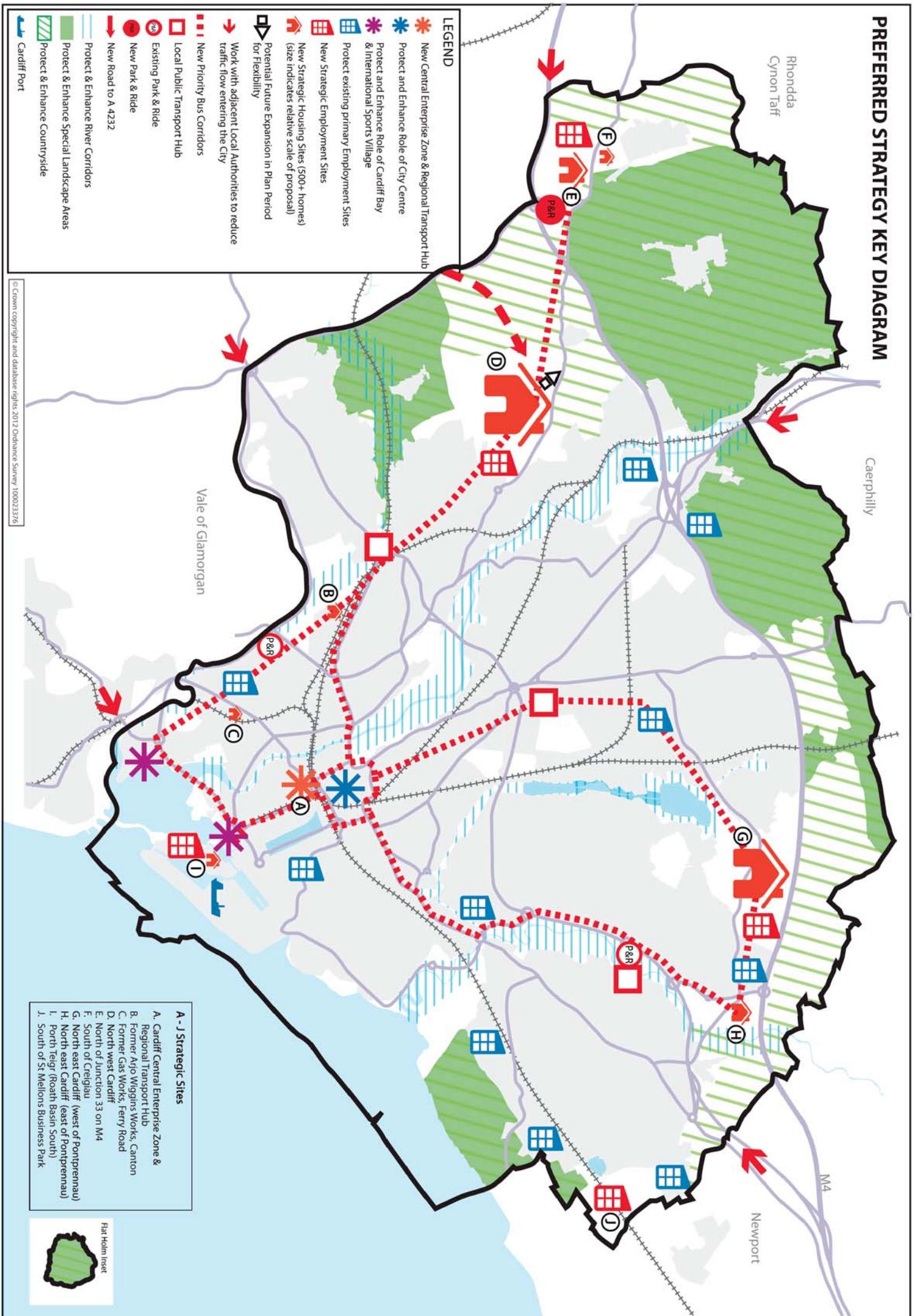
7.58 The strategy as a whole is considered to deliver sustainable development for Cardiff. This is defined in the Welsh Government, 'Sustainable Development Scheme' as, "enhancing the economic, social and environmental wellbeing of people and communities, achieving a better quality of life for our own and future generations, in ways which:

- a. Promote social justice and equality of opportunity, and
- b. Enhance the natural and cultural environment and respect its limits- using only our fair share of the earth's resources and sustaining our cultural legacy".

7.59 Importantly, the strategy responds to significant economic and social needs but does so in a way which minimises environmental impact. Furthermore, it sets out in some detail the key building blocks for the creation of sustainable neighbourhoods which will be fit for future generations.

7.60 All the main strands of the strategy fit together to deliver this approach and are considered to represent a sound basis to progress the sustainable development of the city.

PREFERRED STRATEGY KEY DIAGRAM



7 The Preferred Strategy



Overall level of growth

Policy 1: Level of growth- Delivering sustainable development

In order to effectively meet evidenced economic and social needs whilst respecting the environment, the plan sets out a strategy to deliver approximately 40,000 new jobs and 45,400 dwellings over the plan period.

Policy 2: Strategic sites to deliver growth

In addition to a wide range of brownfield site commitments, the following Strategic Sites (500 homes or more) and/or significant employment/mixed use sites are proposed:

- A. Cardiff Central Enterprise Zone and Regional Transport Hub - major employment-led initiative including a Regional Transport Hub together with other mixed uses in Cardiff city centre in order to fulfil Cardiff's role as economic driver of the city-region, provide major employment opportunities focused on financial and business services and maximise the advantages of its location adjacent to the Central Station and Cardiff Bus Station;
- B. Former Arjo Wiggins Works, Canton - mixed use of approximately 700 homes, employment and associated community uses;
- C. Former Gas Works, Ferry Road - housing based scheme of approximately 500 homes with associated community uses;
- D. North west Cardiff - comprehensive development including approximately 7,500 homes, employment and other associated community uses;
- E. North of Junction 33 on M4 - mixed use of approximately 2,000 homes, employment, other associated community uses and a strategic Park and Ride site;
- F. South of Creigiau - housing-based scheme of approximately 750 homes with associated community uses;
- G. North east Cardiff (west of Pontprennau) - comprehensive development of approximately 6,000 homes, employment and other associated community uses;
- H. North east Cardiff (east of Pontprennau) - housing-based scheme of approximately 2,000 homes with associated community uses;

- I. Porth Teigr (Roath Basin South)- mixed use scheme including approximately 1,000 homes, offices, leisure and retail; and
- J. South of St Mellons Business Park- strategic employment site.

Effectively responding to economic needs

Policy 3: New Employment Sites

Provision will be made for a range and choice of new employment sites including those identified in Policy 2 for different types of employment and in different geographical locations to effectively deliver the level of growth set out in the plan.

Policy 4: Protection of Existing Employment Sites

There will be a strong presumption in favour of retaining and encouraging the intensification and refurbishment of existing industrial and warehousing land to ensure their continued important contribution to providing accessible sources of employment in the city. Similarly, there will be a strong presumption in favour of retaining existing high quality and accessible office accommodation. However, consideration will be given to the change of use (to housing for example) of lower quality office and industrial premises which do not perform an important strategic or local role in terms of the overall range and choice of premises.

Policy 5: City Centre and Bay Business Areas

Development will be favoured that supports the vitality, attractiveness and viability of the city centre and the on-going regeneration of the Bay Business Area, including:

- (i) New and improved retail facilities within the Central Shopping Area;
- (ii) New offices within the city centre and Bay Business Areas; and
- (iii) The provision of major sports and visitor facilities within the city centre and Bay Business Areas and around the Bay Waterfront.

Policy 6: Minerals and Aggregates

Cardiff will contribute to regional aggregate supplies by:

- (i) Promoting and supporting the efficient use of minerals and use of alternatives to naturally occurring minerals including the re-use of secondary aggregates;
- (ii) Protecting existing mineral reserves and potential resources from development that would preclude their future extraction; and
- (iii) Maintaining a 10 year land bank of permitted aggregate reserves in line with national guidance.

Policy 7: Waste

Waste arisings from Cardiff will be managed by:

- (i) Promoting and supporting additional sustainable waste treatment facilities, measures and strategies in accordance with the Regional Waste Plan and in a manner that follows the waste hierarchy which seeks to maximise the reduction of waste in the first place and thereafter reusing, recovering and recycling options before disposal of waste;
- (ii) Encouraging the provision of in-building treatment facilities on existing and allocated areas of general industry;
- (iii) Supporting the provision and maintenance of sustainable waste management storage and collection arrangements in all appropriate new developments; and
- (iv) Supporting waste minimisation and the provision of facilities that use recycled or composted products.

Effectively responding to social needs

Policy 8: Housing Range and Choice, including Affordable Housing

A range and choice of dwelling sizes, tenures, types and locations that meets specific needs will be provided to meet the full range of housing needs, particularly affordable accommodation and family units. In principle, the Council will seek to secure provision of 40% of affordable housing on new housing (or mixed use including housing) developments. The exact provision on each site will depend on local evidence of need and financial viability matters. Provision will also be made for the accommodation needs of Gypsy and Travellers.

Policy 9: Sustainable Neighbourhoods

A key part of the successful progression of the city will be to develop sustainable neighbourhoods, tackle deprivation, and improve the quality of life for all. This will be achieved through:

- (i) Supporting the vitality, viability and attractiveness of existing District and Local Centres and their regeneration, including retail and other commercial development and housing of an appropriate scale;
- (ii) Encouraging the provision of a full range of social, health, leisure and education facilities and community infrastructure for both existing and new communities that are accessible to all by walking and cycling;
- (iii) Supporting the regeneration of deprived communities within the city and maximising the additional benefits that new communities can bring to adjoining or surrounding communities;
- (iv) Encouraging the enhancement of communities through better equality of access to services for all, promoting cultural and wider diversity for all groups in society, and creating places that encourage social interaction and cohesion;
- (v) Developing new cultural and sporting facilities to build upon Cardiff's role as a major tourist, cultural and sporting destination for visitors and residents alike; and
- (v) Designing out crime and creating communities which are safer and feel safer.

Policy 10: Healthy Living

Cardiff will be made a healthier place to live by seeking to reduce health inequalities, encouraging healthier lifestyles and providing accessible and usable green spaces including allotments, and providing accessible health facilities. In particular Cardiff will offer a physical and built environment that supports active travel, health, recreation and well being, safety and social interaction. Action reducing health inequalities, encouraging healthy lifestyles and providing accessible and quality open green spaces will be prioritised.

Delivering sustainable transportation solutions and providing infrastructure

Policy 11: Sustainable Transportation

The significant level of growth projected within the plan period will have a major impact on Cardiff's transport system. A strategic approach will be adopted to ensure that developments are not reliant on the private car and have maximum accessibility by sustainable travel modes. The aim is to secure a modal split of 50% car and 50% non car modes. This will be achieved by supporting developments which:

- i. Are supported by the prior provision of transport infrastructure/measures necessary to establish and embed sustainable travel patterns from their first occupation;
- ii. Through their location and design reduce the need to travel, and reduce car use and dependency by enabling residents to access employment ,shopping, medical, educational and other essential services and community facilities by sustainable travel modes;
- iii. Incorporate permeable networks of safe, attractive and convenient walking and cycling routes providing all residents with non-motorised access to local facilities;
- iv. Are supported by safe, attractive, fast and efficient public transport services which can be accessed within a 400 metre walking distance of all residents;
- v. Are physically and functionally integrated with and support existing communities; and
- vi. Provide safe and convenient access for all.

Policy 12: Public Transport

In order to reduce car use and support sustainable travel, all developments will be supported by safe, attractive, fast and efficient public transport services that meet the everyday travel needs of all residents. This will be achieved by:

- i. Extending the existing bus network through the provision of new services and/or extension of existing services;
- ii. Development of new express bus services connecting developments to key destinations and maximising the opportunity for interchange with other public transport services/travel modes; Development of new express bus services connecting developments to key destinations and maximising the opportunity for interchange with other public transport services/travel modes;
- iii. Provision and/or improvement of infrastructure including junction improvements, bus priority measures and facilities to meet passenger needs;
- iv. Supporting infrastructure and service improvements to the regional and local rail networks which help to maximise rail patronage for trips within Cardiff and journeys into the city from neighbouring areas;
- v. Supporting improvements to regional bus corridors to maximise bus use for trips within Cardiff and journeys into the city from neighbouring areas;
- vi. Safeguarding land for a new Regional Transport Hub which will incorporate a Bus Station adjacent to the Central Rail Station as part of the Cardiff Central Enterprise Zone proposal;
- vii. Creating Local Public Transport Hubs to improve the effectiveness of cross-city movements; and
- viii. Implementing 'soft' measures to encourage public transport use such as the provision of accessible information, marketing, promotional initiatives, and ticketing improvements in conjunction with other non-physical interventions to support and encourage sustainable travel.

Policy 13: Bus Corridors

Developments will be implemented in conjunction with and served by strategic bus corridors with new and/or improved bus/bus rapid transit services which provide residents with easy to access, frequent, fast attractive and well integrated connections to key destinations, including, where appropriate, existing and proposed Park and Ride/Share facilities/services. Key routes include:

- i. From Cardiff Bay, through the city centre to Heath Hospital and beyond to North East Cardiff;
- ii. South west corridor;
- iii. North west corridor;
- iv. North corridor- Based on the A470/Manor Way route; and
- v. North east corridor- From city centre to north eastern suburbs linking in with existing Park and Ride Facility at Pentwyn.

Policy 14: Park and Ride/Share Schemes

New Park and Ride/Share facilities in strategic locations within and around Cardiff will be established which will serve to minimise traffic entering the city and provide a sustainable travel alternative. Provision will be met by:

- (i) Further enhancements to the existing park and ride facility and services at Pentwyn;
- (ii) Provision of new Park and Ride/ Share Facility supported by high frequency services as part of Strategic Site north of Junction 33 on the M4;
- (iii) Provision of new Park and Ride/ Share Facilities supported by high bus frequency services in other locations where such facilities would be attractive to users and would support the Council's wider transport objectives;
- (iv) Working with Sewta and neighbouring authorities to secure suitable Park and Ride/ Share Schemes relating to relevant transport corridors entering the city; and
- (v) Working with Sewta and neighbouring authorities to secure an increase in rail based Park and Ride provision in the city-region.

Policy 15: Walking and Cycling

Developments will be located and designed in a way which gives priority to movements by walking and cycling to facilitate access to employment, shopping, medical, educational and other essential services and community facilities. These requirements will be met by:

- (i) Ensuring developments incorporate and enable safe, convenient and attractive connections to the Cardiff Strategic Cycle Network;
- (ii) Development designs and layouts which are well integrated with existing developments;
- (iii) Development designs and layouts which are fully permeable, have good surveillance and incorporate coherent and legible networks of safe and attractive walking and cycling routes and which provide direct and convenient access to employment, public transport facilities, shopping and other essential services and community facilities;
- (iv) Road layouts and designs which minimise vehicle speed and which through their alignment and design give priority to the movement needs of pedestrians, cyclists (of various types), children, disabled people, people with mobility impairments and other vulnerable road users; and
- (v) Development designs and layouts which give particular consideration to pedestrian and cyclist movements at junctions and other crossing facilities as these can create significant barriers.

Policy 16: Travel Planning

All significant developments will be supported by comprehensive travel plans and the provision and implementation of such plans will be required as a condition of planning approval and, where appropriate, a planning obligation. Travel Plans will include practical and deliverable measures designed to stimulate the use of sustainable travel choices by residents or users of a development. Including, although not restricted to:

- i. Employment of a Travel Plan co-ordinator;

- ii. Measures to promote/incentivise sustainable travel;
- iii. Provision of walking and cycling connections to/from site;
- iv. Support for car clubs;
- v. Provision of on-site cycle parking for residents and visitors; and
- vi. Provision of shower/changing facilities.

Travel Plans will be required to set targets for modal split of the development concerned and make provision for regular monitoring of progress towards meeting those targets within a defined period.

Policy 17: Improving safety and accessibility

Development will need to ensure that travel is safe, convenient and attractive including:

- (i) Connections to existing walking, cycling and public transport networks so that they are accessible to all, including those with special access, mobility requirements, older people and young children;
- (ii) Improving personal safety and the perception of safety for all travellers; and
- (iii) Making improvements to road safety.

Policy 18: Access, circulation and parking requirements

Development will need to provide safe and convenient provision for all relevant users and modes including:

- (i) Pedestrians;
- (ii) People with special access and mobility requirements;
- (iii) Cyclists, including provision for cycle parking;

- (iv) Powered two-wheelers;
- (v) Public transport;
- (vi) Vehicular access and traffic management within the site and its vicinity;
- (vii) Car parking and servicing. Car parking will be minimised in line with improvements to access by sustainable transport, in particular, reducing long stay parking for commuters (whilst still providing for disabled users);
- (viii). coach parking; and
- (ix). horse -riders.

Policy 19: Impact on the existing transport network

Development will be located and designed in a way that does not harm the efficient operation of the road network, public transport services or destroy or disrupt footpaths, public rights of way, cycleways and bridleways.

Policy 20: Delivering necessary infrastructure

A Community Infrastructure Levy (CIL) will be set indicating the required financial contribution from Developers to help fund infrastructure provision. Additionally, for matters not addressed by the CIL. Planning Obligations will be used to help bring forward local infrastructure.

Overall, the following elements of infrastructure and other works and measures related to sites will be sought by the Council:

- (i) Access, circulation, parking, public transport provision and infrastructure for walking and cycling;
- (ii) Affordable housing;
- (iii) Open space, children's play areas, allotments, recreation and leisure;
- (iv) Public realm improvements and public art;

- (v) Replacement employment opportunities;
- (vi) Schools;
- (vii) Waste management facilities and services;
- (viii) Community facilities including District and Local Centre improvements;
- (ix) Protection, enhancement and management of natural and built heritage interests and enhancements identified within adopted appraisals for each Conservation Area;
- (x) Community safety initiatives; and
- (xi) Other facilities and services considered necessary.

Respecting environmental interests and responding to climate change

Policy 21: Climate Change

To mitigate against the effects of climate change and adapt to its impacts, development proposals should take into account the following factors:

- (i) Reducing carbon emissions;
- (ii) Protecting and increasing carbon sinks;
- (iii) Adapting to the implications of climate change at both a strategic and detailed design level;
- (iv) Promoting energy efficiency and increasing the supply of renewable energy; and
- (v) Avoiding unnecessary flood risk by assessing the implications of development proposals within areas susceptible to flooding and preventing development that unacceptably increases risk.

Policy 22: Natural Heritage

Cardiff's distinctive natural heritage will be protected, positively managed and enhanced together with improving access where this does not create unacceptable conflicts, in particular:

- (i) The city's parks, open spaces and allotments that are important for recreation, amenity, biodiversity, heritage or climate change resilience;
- (ii) The strategically important river valleys of the Ely, Taff, Nant Fawr and Rhymney that are important for recreation, amenity biodiversity and climate change resilience;
- (iii) The city's undeveloped countryside and coastline providing an attractive resource close to the city's population and containing a wide variety of intrinsic qualities;
- (iv) Biodiversity interests including designated sites, habitats, and species of importance and ecological networks and features of importance; and
- (v) Trees, woodlands and hedgerows that make positive contributions to the character and appearance of the city and the role they play in combating climate change by providing shading, cooling, carbon sinks and Sustainable Urban Drainage Systems (SUDS).

Policy 23: Special Landscape Areas

The following Special Landscape Areas shown on the Key Diagram will be designated and accessibility maximised:

- (i) St Fagans Lowlands and the Ely Valley;
- (ii) Garth Hill Uplands and the Pentyrch Ridges and Valleys;
- (iii) Fforest Fawr and Caerphilly Ridge;
- (iv) Wentloog Levels; and
- (v) Flat Holm.

Policy 24: Strategic Recreational Routes

Land will be safeguarded to create, manage and enhance the following strategic recreational routes to help deliver the aims of the Cardiff River Valleys Initiative:

- (i) Ely Trail;
- (ii) Taff Trail;
- (iii) Nant Fawr Trail;
- (iv) Rhymney Trail; and
- (v) National Coastal Path.

Policy 25: Natural Resources

In the interests of the long-term sustainable development of Cardiff, the city's natural resources will be protected and pollution tackled through:

- (i) Protecting the best and most versatile agricultural land;
- (ii) Protecting the quality and quantity of water resources, including underground, surface and coastal waters;
- (iii) Minimising air pollution from industrial, domestic and road transportation sources and managing air quality; and
- (iv) Remediating contaminated land through the redevelopment of contaminated sites.

Policy 26: Built Heritage

Cardiff's distinctive heritage assets will be protected, managed and enhanced, in particular its Scheduled Ancient Monuments, Listed Buildings, Historic Parks and Gardens, Registered Historic Landscapes, Conservation Areas, locally listed buildings, areas of archaeological importance together with other features of local interest that positively contribute to the distinctiveness of the city.

Delivering sustainable neighbourhoods within a sustainable city

Policy 27: High Quality and Sustainable Design

To help support the development of Cardiff as a world-class European Capital City, all new development will be required to be of a high quality, sustainable design and make a positive contribution to the creation of distinctive communities, places and spaces by:

- (i) Responding to the local character and context of the built and landscape setting so that layout, scale, form, massing, height, density, colour, materials, detailing and impact on the built and natural heritage are all addressed within development proposals;
- (ii) Providing legible development which ensures a sense of continuity and enclosure;
- (iii) Providing a diversity of land uses within new development areas to create more balanced communities;
- (iv) Providing a high quality, safe, accessible, secure and vibrant public realm that relates well to adjoining spaces and incorporates public art where appropriate;
- (v) Maximising renewable solutions;
- (vi) Achieving a resource efficient and climate-responsive design that provides sustainable waste management solutions, minimises water usage and maximises sustainable drainage and minimise emissions from transport, homes and industry;

- (vii) Achieving an adaptable design that can respond to future social, technological and environmental requirements;
- (viii) Promoting the efficient use of land and where appropriate the remediation of contaminated land;
- (ix) Ensuring no undue effect on the amenity of neighbouring properties and connecting positively to surrounding communities; and
- (x) Fostering inclusive design.

How to comment on the plan



How to comment on the plan

9.1 You can comment on the Preferred Strategy in one of two ways:

- On-line by registering at www.cardiff.gov.uk and using the on-line response form, or
- If you are unable to make comments on-line, please download a response form from www.cardiff.gov.uk and e-mail it to ldp@cardiff.gov.uk. Alternatively forms can be obtained by telephoning 029 2087 3461 and returning them by post to the address below

LDP Team
Strategic Planning
Cardiff Council
Room CY1
County Hall
Atlantic Wharf
Cardiff
CF10 4UW

9.2 The consultation period runs from 1st November to 14th December 2012. **Comments must therefore be received by 14th December 2012.** The Council cannot guarantee that comments received later will be considered. All comments made by the deadline will be acknowledged and considered.

How to contact the LDP Team

9.3 If you have any queries about how to submit your views either:

- Check the website www.cardiff.gov.uk for up to date information;

- E-mail our team on ldp@cardiff.gov.uk; or
- Speak to our team on 029 2087 3461.

List of Appendices

The following Appendices 1 to 9 are contained in a separate Appendices document:

1. National and regional policy framework
2. The Cardiff context and key issues the plan must address
3. Consideration of growth options
4. Summary of LDP process including technical terms glossary
5. List of the Evidence Base used to inform the plan
6. Summary of strategic sites and approach to non-strategic sites
7. Tests of soundness self assessment
8. Proposed monitoring framework
9. Bibliography

Background Technical Papers

1. Initial Sustainability Appraisal Report
2. Health Impact Assessment Report
3. Equalities Impact Assessment Report
4. Habitat Regulations Report
5. Summary of Scrutiny findings
6. Summary of consultations undertaken to date
7. Report of Findings of Collaborative Officer Working Group
8. Summary of Candidate Site Assessment – Methodology & Findings
9. Population and Housing Technical Paper
10. Urban Capacity Technical Paper
11. Economic Technical Paper
12. Transportation Technical Paper



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