

**Merthyr Tydfil County Borough Council**  
**1<sup>st</sup> Replacement Local Development Plan (2016 – 2031)**

**Sustainability Appraisal**  
(Incorporating Strategic Environmental Assessment, Health Impact Assessment  
and Equalities Impact Assessment)

**SCOPING REPORT (*v03 Final SA Baseline Scoping Report*)**

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## 1.0 INTRODUCTION

### **Sustainability Appraisal (SA) incorporating Strategic Environmental Assessment (SEA), Health Impact Assessment (HIA), and Equalities Impact Assessment (EqIA)**

- 1.1 A sustainability appraisal (SA) is a systematic process that must be carried out during the preparation of a Local Development Plan (LDP). The purpose of an SA is to promote sustainable development through assessing the extent to which an emerging plan, when judged against reasonable alternatives, will help to achieve relevant environmental, economic and social objectives (Welsh Government, 2015).
- 1.2 The requirement for an SA is set out in Section 62 of the Planning and Compulsory Purchase Act 2004 and in Paragraph 2.4 of the Planning Policy Wales (Edition 9, November 2016). Extant guidance (Welsh Government, 2015) recommends that SA incorporates the requirements for Strategic Environmental Assessment (SEA) set out in the Environmental Assessment of Plans and Programmes Regulations 2004, which implements the requirements of the EU SEA Directive (European Parliament, Council of the European Union, 2001). Merthyr Tydfil County Borough Council (the Council) has commissioned independent specialist consultants *Enfusion Ltd* to provide expert advice on the SA process for the preparation of the 1<sup>st</sup> Replacement Merthyr Tydfil LDP.
- 1.3 In addition, the Council has chosen to integrate the Health Impact Assessment (HIA) and Equality Impact Assessment (EqIA) processes with the overarching SA process. HIA is not a statutory requirement; however, health considerations are a requirement of the SEA process and thus the overall SA process. Public bodies have a duty (UK Government, 2010) to assess the impact of their policies on different population groups to ensure that discrimination does not take place and where possible, to promote equality of opportunity. The SEA, HIA and EqIA therefore all form part of the Sustainability Appraisal (SA) process for the preparation of the 1<sup>st</sup> Replacement Merthyr Tydfil LDP. The Council is also required to undertake a Habitats Regulations Assessment (HRA). The HRA process has its own legislative drivers and requirements and while the different processes can inform each other, it is important that the HRA remains distinguishable from the wider SA process. While the HRA process will be undertaken in parallel with the SA its detailed method and findings will be reported separately.
- 1.4 The Local Development Plan Manual (Welsh Government, 2015) sets out the key stages and tasks for the SA process and their relationship with the LDP process, which are illustrated in Figure 1.1. It is important to note that SA is an iterative and on-going process. Stages and tasks in the SA process may be revisited and updated or revised as a plan develops, to take account of updated or new evidence as well as consultation responses.

- 1.5 The scoping stage is the first stage of the SA process, identifying the scope and level of detail of the information to be included in the SA Report. It sets out the context, objectives and approach of the assessment; and identifies relevant environmental, economic and social issues and objectives. This report includes the amendments recommended by the statutory 'Environmental Consultees' Natural Resources Wales and Cadw following consultation undertaken between 21<sup>st</sup> December 2016 and 25<sup>th</sup> January 2017. The responses are detailed in Appendix 2.

**Figure 1.1: SA Stages**

The five main stages in conducting an SA that need to be integrated into LDP preparation	
<b>Stage 1</b>	Scoping: Establish baseline and scope SA including objectives and indicators (include resources in DA).
<b>Stage 2</b>	Assessing: Identify and test strategic options and undertake SA assessment of options.
<b>Stage 3</b>	Consulting: Prepare Initial SA Report and Preferred Strategy proposals document for consultation.
<b>Stage 4</b>	Publishing: Prepare and publish Deposit LDP, repeat SA on new options arising, update SA report and test advised untested sites through SA.
<b>Stage 5</b>	Monitoring: Adopt LDP and amend SA and begin monitoring of significant effects and mitigation measures (Include in LDP AMR and consider need for remedial action) and publish Review Report.

### The Merthyr Tydfil Local Development Plan

- 1.6 Merthyr Tydfil County Borough Council (MTCBC) is preparing a replacement LDP that sets out a vision for how the area will develop up to 2031. The plan addresses future needs and opportunities in relation to housing, the economy, community facilities and infrastructure as well as setting out the principles that will guide future development. It will lay down the overall level and strategic direction for new development and will allocate land for housing and employment. The Council are currently at the evidence gathering stage of the LDP process (December 2016).

### Purpose and Structure of this SA Scoping Report

- 1.7 This document reports the scoping stage of the SA process for the 1<sup>st</sup> Replacement Merthyr Tydfil LDP. Following this introductory Section 1, this report is structured into five further sections:

- ◆ Section 2 provides the policy context, setting out the key plans and programmes of relevance to the SA of the Merthyr Tydfil LDP;
- ◆ Section 3 describes the characteristics of the plan area, setting out a summary of the collated baseline information;
- ◆ Section 4 sets out the key sustainability issues and SA Frameworks;
- ◆ Section 5 sets out the proposed approach and method for the SA and

- ◆ Section 6 provides the consultation details for this Draft SA Scoping Report and next steps for the process.

1.8 Full references are provided at the end of the document on pages 112 – 114.

## 2.0 POLICY CONTEXT

### Introduction

- 2.1 In order to establish a clear scope for the SA, it is necessary (and a requirement of SEA) to review and develop an understanding of the wider range of plans and programmes that are relevant to the Plan. This includes International, European, National, Regional and Local level policies, plans and strategies. Summarising the aspirations of other relevant policies, plans, programmes and sustainability objectives promotes a systematic identification of the ways in which the LDP could help to fulfil them.
- 2.2 The key plans and programmes are provided below, along with a summary of the implications for the LDPs and SA. Local planning authorities (LPA's) must engage constructively, actively and on an ongoing basis to maximise the effectiveness of LDP preparation in the context of strategic cross boundary matters, and as such the surrounding development plans have been reviewed to identify any potential issues in the neighbouring authority areas. The implications of these development plans for the 1<sup>st</sup> Replacement Merthyr Tydfil LDP and SA have also been summarised. These will be reviewed at each SA stage to ensure they remain relevant.

### Key Plans and Programmes

#### *International:*

- 2.3 Relevant international plans and policy have been transposed into national plans, policy and legislation and are considered below.

#### *National:*

- 2.4 There is an extensive range of National Plans and Programmes that are of relevance to the LDP and the SA process. A pragmatic and proportionate approach has been taken with regard to the identification of key National plans and programmes which are set out below:

- **Welsh Government - People, Places, Futures – The Wales Spatial Plan (WSP) 2008** update the WSP is the overarching framework and integration tool for Wales and is important to the Welsh Assembly Government as it helps to deliver priorities set out in One Wales.
- **Welsh Government - One Wales: One Planet, The Sustainable Development Scheme of the Welsh Assembly Government (WAG) 2009** sets out WAG's vision of a sustainable Wales and confirms that sustainable development will be the central organising principle of the Assembly.
- **Welsh Government - Planning Policy Wales, Edition 9, November 2016**, is the land use planning policy for Wales this guidance is supplemented by 21 Technical Advice Notes (TANs) together with procedural guidance in circulars.

- **Welsh Government - Travelling to a Better Future - A Gypsy and Traveller Framework for Action and Delivery Plan** and up-dates seeks to ensure the needs of gypsies and travellers are assessed, planned and implemented in a more strategic way.
- **Environment Agency, Managing Water Abstraction, 2013** - is the overarching document for managing water resources in England and Wales and links together the abstraction licensing strategies.
- **Environment Agency, Water for people and the environment Water Resources Strategy for Wales, 2014** sets out how water resources should be managed over the coming decades so that water can be abstracted and used sustainably
- **Dwr Cymru, Water Resources Management Plan 2014 - The Plan covers a 25 year period, from 2015 to 2040** (also termed the 'planning period') and considers what needs to be done to ensure a sustainable and affordable balance between the amount of water taken from the environment and the amount of water needed for daily lives.
- **Cadw Arts and Heritage Framework 2012** is the Welsh Government's historic environment service, working for an accessible and well-protected historic environment for Wales.
- **Cadw - Historic Environment Strategy for Wales 2013** produced to promote activity, access and creativity —bringing together enjoyment and protection of much of the country's natural as well as its historic environment.
- **Welsh Government - The Woodlands for Wales Action Plan 2015 -2020** is the short-term focus on actions and activities to make progress towards delivery of the long-term ambitions of Woodlands for Wales, Welsh Government's fifty-year strategy for woodlands and trees in Wales.
- **Welsh Government - The Nature Recovery Plan for Wales** sets out how Wales will deliver the commitments of the UN Convention on Biological Diversity and the EU Biodiversity Strategy to halt the decline in our biodiversity by 2020 and then reverse that decline.
- **Welsh Government - Climate Change Strategy for Wales 2010** and the two delivery plans that accompany it confirm commitments to reduce greenhouse gas (GHG) emissions and enable effective adaptation in Wales.
- **Welsh Government – A low carbon revolution 2010** sets the Welsh Government's ambitions for low carbon energy in Wales.
- **Welsh Government - Towards Zero Waste – One Planet Wales: The Overarching Waste Strategy for Wales 2010** sets out a long term framework for resource efficiency and waste management between now and 2050.
- **Public Health Wales (PHW) - Creating a Healthier, Happier and Fairer Wales – Introducing the Public Health Wales Strategic Plan for 2015 -18** explains how PHW is working to make Wales a healthier, happier and fairer place for everyone.
- **Welsh Government - Wales Infrastructure Investment Plan for Jobs and Growth 2012 (WIIP)** set out the Welsh Government's strategic investment priorities providing a detailed account of sectoral investment plans through to 2014-15 - Wales Infrastructure Investment Plan Project Pipeline provides



a single point of cross sectoral knowledge to inform key strategic investment decisions across the public and private sector the latest update being Project Pipeline Update February 2016.

- **Welsh Government - Skills Implementation Plan** – Delivering the policy statement on skills developed to inform future action in relation to post-19 skills and employment policy, 2014.
- **Welsh Government – Scoping study for converting disused railway tunnels into walking and cycling routes as part of the National Cycle Network Wales 2015** – Considers the scope for Abernant and Morlais tunnels.
- **Welsh Government - Noise Action Plan for Wales 2013 – 2018**
- **Welsh Government – The Action Plan for Pollinators in Wales 2013** - sets the strategic vision, outcomes and areas for action to improve conditions for pollinators and work to halt and reverse their decline in Wales.

**Regional:**

- **Welsh Government - Turning Heads – A Strategy for the Heads of the Valleys 2020, 2006** helping to drive the success of South East Wales as an internationally recognised capital region.
- **Defra and Environment Agency –Water for Life and Livelihoods – River Basin Management Plan Severn River Basin District 2009** is the approach the Environment Agency is using to ensure combined efforts achieve the improvement needed in the Severn River Basin District, focussing on the protection, improvement and sustainable use of the water environment.
- **South East Wales Transport Alliance (Sewta) - Regional Transport Plan (RTP) 2010** is a statutory plan which sets out an integrated and sustainable transport strategy for South East Wales.
- **South East Wales Regional Aggregates Working Party – Regional Technical Statement 2014** apportiones the requirement for aggregates provision amongst Minerals Planning Authorities.
- **South East Wales Valleys Local Transport Plan, January 2015** covering the period 2015 -2020 building upon the success of the previous Sewta Regional Transport Plan jointly developed by Blaenau Gwent, Caerphilly, Merthyr Tydfil, Rhondda Cynon Taf and Torfaen local authorities sets out the thinking on the area's future transport needs, ways of increasing the transport choice for local residents and ways of improving access to jobs, education, healthcare and other services in the South East Wales Valleys area.
- **Welsh Government - City Regions Final Report July 2012** considers the evidence for city regions as economic drivers, and identifies potential City Regions in Wales.
- **Gillespie's LLP - Heads of the Valleys - Smaller Scale Wind Turbine Development - Landscape Sensitivity and Capacity Study: Final Report – April 2015** the purpose of the study is to provide guidance for the landscape and visual assessment of the impacts of smaller scale wind turbine developments.
- **Western Power Distribution – Innovation strategy 2016.**

- **South East Wales Employment and Skills Plan 2016** – defines the regional skills agenda.

### *Local*

- **Merthyr Tydfil County Borough Council – Local Development Plan 2006-2021** sets out the Council's priorities for the development and use of land in the area.
- **Merthyr Tydfil Active Travel, 2015** existing route maps implements the duty under the Active Travel (Wales) Act 2013 which includes the potential of Public Rights of Way (PROWs) in encouraging active travel.
- **Merthyr Tydfil Open Spaces Strategy, 2016** identifies areas of surplus and deficiency in access to open space. Identifies priority open spaces and ideas for their enhancement.
- **Merthyr Tydfil County Borough Council – The Highway Network Management Plan** sets out a policy in relation to all highways maintenance activities undertaken within the County Borough area.
- **Merthyr Tydfil County Borough Council – 2015 Updating and Screening Assessment for Merthyr Tydfil County Borough Council 2016** fulfils the requirements of the Local Air Quality Management process which places an obligation on all local authorities to regularly review and assess air quality in their areas, and to determine whether or not the air quality objectives are likely to be achieved.
- **Merthyr Tydfil County Borough Council - Local Flood Risk Management Strategy 2013** sets out to satisfy the requirements of the Flood and Water Management Act 2010.
- **Merthyr Tydfil County Borough Council – Action for Wildlife - The Merthyr Tydfil Biodiversity Action Plan 2014 -2019** sets out objectives, targets and actions for conservation of biodiversity within the County Borough area.
- **White Consultants - The Merthyr Tydfil LANDMAP Study (2002)** the aim of the study was to ascertain a clear understanding of the landscape resource and set out a strategy and design and management guidelines to assist in the socio-economic regeneration of the MTBC area.
- **Merthyr Tydfil County Borough Council - Destination Management Plan 2015-2018** prioritising the tourism sector within the Local Authority, concentrating on developing its products further and upgrading the existing tourism product.
- **The Conservation Studio - Merthyr Tydfil County Borough Council – Built Heritage Strategy and Action Plan 2008** a detailed Action Plan to protect and enhance its heritage assets, including listed and locally listed buildings, ancient monuments, and conservation areas.
- **Merthyr Tydfil County Borough Council - Conservation Area Appraisals and Management Plans (CAAMPs)** provide detailed information on the special character of conservation areas, and provide guidance for development and maintenance of properties.

- **Celfwaith - Merthyr Tydfil Town Centre Public Art Strategy 2014** purporting an arts led regeneration and artists can play a major part in that process by helping to change public perceptions of the town.
- **Merthyr Tydfil Leisure Trust – Library Delivery Plan 2015- 2016** a working document which sets out the direction for the delivery of the service within the Leisure Trust for 2015 -2016.
- **Merthyr Tydfil County Borough Council – Local Housing Market Assessment 2014-2019 (LHMA) March 2015** a periodical review of housing need which will assist the Authority with strategic planning for housing and a range of other Local Authority services.
- **Welsh Government - Merthyr Tydfil Housing Association Limited Regulatory Assessment Report 2014** provides evidence to demonstrate performance against delivery outcomes.
- **Merthyr Tydfil County Borough Council – Corporate Asset Management Plan** sets out our vision for property in the context of corporate influences and objectives and details what progress has been made to date, together with our priorities for the future.
- **Merthyr Tydfil County Borough Council – Corporate Plan** sets out the main priorities for the council from 2013 to 2017.
- **Merthyr Tydfil Public Service Board - Single Integrated Plan for Merthyr Tydfil 2013 -2017** replaced the four previous partnership plans that sought to improve the economic, social and environmental well-being of the area its people and will be superseded by the Local Well-Being Plan following completion of the Cwm Taf Well-being Assessment.
- **Merthyr Tydfil Anti-Poverty Strategy, 2016.**
- **Merthyr Tydfil Public Service Board – Information Strategy** seeks to have the right information available to the right people at the right time ensuring safety of information to support the right decisions.

### ***Other Proposals***

- **Integrated Transport South Wales Metro Project** – The South Wales Metro is a proposed integration of heavy rail and development of light rail and bus-based public transport services and systems in South East Wales around the hub of Cardiff Central. The first phase was approved for development in October 2013 and the project aims to significantly improve transport connectivity around the region by reducing journey times and increasing frequency of service. Work on electrification of the Valley Lines, its second phase, will commence in 2019 and be completed by 2022/23, with turn-up and go service every 15 minutes from Merthyr Tydfil.
- **Emerging Council Plans** include an economic development strategy, twenty first century schools improvement programme (both due in 2017) and development of the Local Well-being Plan in 2018.
- **Cardiff Capitol Region Growth and Competitiveness commission** is considering evidence and is due to report in 2017.
- **Significant developments** include a new central bus station, Trago Mills retail outlet and the duelling of the A465.

## **Implications for the LDP and SA**

- 2.5 Existing plans and strategies that seek to improve the overall well-being of communities and reduce inequalities have the potential to be affected by the LDP. The delivery of new housing is considered to support local communities by meeting housing needs and addressing shortages. The LDP can have a significant influence in addressing inequalities, and will need to consider the appropriate siting of new development, particularly large development sites that are likely to include new services and facilities.
- 2.6 The LDP can seek to locate development in areas to facilitate improved accessibility for existing residents as well as new, and ensure that future development does not exacerbate inequalities. The SA process can support the identification and refinement of options that can contribute to reducing inequalities, and support the development of policy approaches that cumulatively improve the well-being of local communities.
- 2.7 Economic and employment plans seek to maximise the economic potential of this area, particularly in regards to the wider economic potential of the South East Wales 'Cardiff Capital' Region, and significant neighbouring growth areas like Cardiff. The Merthyr Tydfil LDP should seek to maximise the potential benefits of nearby strategic growth, and take advantage of opportunities for an 'orbital' approach to growth, ensuring the vitality and viability of the local economy. Ensuring the town centre and district centre services and facilities are maintained and enhanced is also important and also supports local communities.
- 2.8 The delivery of growth can equally support investment and improvement to local nature conservation designations and biodiversity networks (Sites of Importance for Nature Conservation and Green Infrastructure), recreational areas, leisure facilities and tourist attractions. The LDP should also seek to maximise any opportunities arising for local economies, communities, health and biodiversity. The SA process should support the identification and maximisation of potential benefits through the consideration of alternatives and assessment of both negative and positive significant effects.
- 2.9 The transport strategies identify strategic and localised priorities and action plans, and the increased growth in housing and employment development proposed in the LDP will have the potential to affect the current state of the transport network. Housing growth will inevitably increase traffic on the roads which also has implications for air quality. The SA process can help the LDP to minimise the effects of this through appropriately siting new development, identifying where mitigation may be needed and requiring the necessary transport provisions and contributions from new development that will promote a modal shift toward public transport and Active Travel. The LDP and SA should seek to identify opportunities to maximise the potential for alternative modes of transport to the car, reduce the need to travel, and therefore reduce emissions; through the consideration of alternatives and assessment of significant effects. This includes potential opportunities that may

arise as a result of the delivery of new infrastructure, including the ‘Metro’ and ‘Bus Station’.

- 2.10 The LDP can further support energy efficiency and waste minimisation measures for new development and the promotion of renewable energy. LDPs can promote the Home Quality Mark (Building Research Establishment Ltd, 2015) and Building for Life ( Design Commission for Wales, 2015) standard to support residents in understanding the quality and performance of new build homes and can also set targets for developers to provide for a given percentage of energy used by a new development to come from on-site renewable or low carbon technologies (see Planning & Energy Act 2016). LDP policies can further support the development of renewable energy technologies where appropriate, in line with climate change mitigation strategies and targets.
- 2.11 Housing growth has the potential to increase the consumption of water resources. The LDP can plan for water efficiency, as well as ensure that water quality is maintained and enhanced in the plan area and that there is sufficient ‘headroom’ in the waste water treatment works in Cilfynydd. This not only addresses an existing sustainability issue but will allow for more long-term flexibility in the LDP, should the overall level of growth change in the future because of new or updated evidence. The SA process should seek to identify and address potential negative effects on the water environment. The LDP can ensure that development is sited away from areas of high flood probability and that appropriate provision is made for water drainage in line with local flood risk strategies.
- 2.12 Land, soil quality, and landscapes are all likely to be affected to some degree by the delivery of new development within the Plan area. The LDP can seek to protect and enhance key landscapes and their settings, and ensure the appropriate protection of soil quality, including best and most versatile agricultural land and soils which have not been disturbed by previous industrial activity. The LDP can similarly offer enhanced protection for designated and non-designated heritage assets and their settings, including any potential archaeological finds in line with heritage protection and enhancement strategies and plans. Further to this the LDP should ensure that new development does not conflict with current mineral operations as well as long-term mineral safeguarding zones. The SA process should inform the development of the Plan by helping to identify sensitive receptors and seek to ensure that adverse sustainability effects are minimised and opportunities for sustainable development are maximised.

### **Surrounding LDPs in the South East Wales Region**

- **Bridgend County Borough Council Local Development Plan 2006 - 2021**, adopted September 2013;
- **Caerphilly County Borough Council Local Development Plan 2006 - 2021**, adopted November 2010;
- **Rhondda Cynon Taf Local Development Plan 2006-2021**, adopted March 2011;

- **Brecon Beacons National Park Local Development Plan 2011-2026**, adopted December 2013;
- **Blaenau Gwent Local Development Plan up to 2021**, adopted November 2012
- **Torfaen Local Development Plan**, adopted December 2013
- **Monmouthshire County Council Local Development Plan 2011-2021**, adopted February 2014;
- **Newport Local Development Plan 2011-2016**, adopted January 2015;
- **Cardiff Local Development Plan 2006-2026**, adopted January 2016 and
- **The Vale of Glamorgan Deposit Local Development Plan 2011 -2026**.

### **Implications for the LDP and SA**

- 2.13 In order to fulfil the preparation requirements and meet Soundness Test 1 (Planning Inspectorate, 2012 (updated 2016)), it is necessary for LPAs to engage constructively, actively and on an ongoing basis in order to maximise the effectiveness of LDP preparation in the context of strategic cross boundary matters. In relation to the need for housing and existing growth restraints within the region, there is the potential that Merthyr Tydfil may need to accommodate a small level of growth from outside the plan area in the future given the close connections with the National Park in the Borough.
- 2.14 Although Merthyr Tydfil is the smallest local authority in the Valleys region it nevertheless fulfils a key strategic role situated at the regional centre for the Heads of the Valleys. This is set to be enhanced by the road widening along the A465 Heads of the Valleys Road, currently underway. The main town of Merthyr Tydfil functions as the main commercial, retail and service centre of the County Borough and Heads of the Valleys region, with its primary shopping areas, the majority of the employment opportunities, a hospital and many other higher order services and facilities. For communities, the potential effects focus on the areas or districts within the town and the settlements situated further south along the Taff and Taff Bargoed river valleys. These communities contain more limited job opportunities and a range of lower order local services and facilities.
- 2.15 Accessibility by transport other than the car varies considerably, and current public transport systems within the County Borough area and to and from surrounding authority areas remain quite poor, suffering from journey time and frequency and a lack of options for orbital travel between valleys. This limits the accessibility of the jobs market for the labour force without access to a car, one of the highest rates in Wales, and limits access to retail cultural and leisure opportunities. Conversely it fosters a strong community ties within settlements. In addition to accessibility planned improvements to the public transport infrastructure could deliver more opportunities for development. In turn any development gains could stimulate improvements to service and facility provisions, improvements to green infrastructure networks and improvements to townscape character through regeneration, with the potential for increased indirect positive effects on communities, health and equalities (Natural Resources Wales, 2016). On the other

hand promoting additional growth could potentially increase pressures on existing highway network and air quality, waste facilities, energy consumption services and facilities and natural resources including water and greenfield land. Increased growth also has the potential for negative effects on landscape and townscape characters, the settings of designated heritage assets and increased potential for fragmentation of habitats, ecological corridors and landscapes. This brings the case for strong design policies.

- 2.16 The LDP and SA should seek to ensure that all significant cross boundary issues are identified and addressed. They should also seek to maximise any potential opportunities that could arise through the requirement for development plan compatibility and consistency. This includes potential enhancements to those designated and non-designated natural environment (landscape, biodiversity and heritage) sites and other networks that cross LA boundaries as well as potential opportunities for the provision of infrastructure that could also have benefits for local communities.
- 2.17 The LDP plan area does not include any 'European Sites' (Special Areas of Conservation (SACs) or Special Protection Areas (SPAs), however adjoining sides planning areas do. Blaen Cynon (Rhondda Cynon Taff) and Aberbargoed Grasslands (Caerphilly) are European Sites in neighbouring planning areas which support populations of the Marsh Fritillary Butterfly, which have now also been recorded within the plan area.

***Key Issues:***

- The distribution of growth within the SE Wales region.
- New transport infrastructure is being proposed within the Plan area, which includes the South Wales Metro Project.
- Active Travel and Public Transport accessibility between valleys.
- The role and function of Merthyr Tydfil as the regional centre for the Heads of the Valleys.
- Ecological connectivity.

### 3.0 BASELINE INFORMATION

#### Introduction

- 3.1. The SEA Directive requires the collation of baseline information to provide a background to, and evidence base for, identifying sustainability problems and opportunities in the Plan area and providing the basis for predicting and monitoring effects of the Merthyr Tydfil LDP. To make judgements about how the emerging content of the LDP will progress or hinder sustainable development, it is essential to understand the economic, environmental and social circumstances in the Plan area today and their likely evolution in the future. The aim is to collect only relevant and sufficient data on the present and future state of the Plan area to allow the potential effects of the Merthyr Tydfil LDP to be adequately predicted.
- 3.1.2 The SA/SEA Guidance contained in the LDP Manual 2 (Welsh Government, 2015) proposes a practical approach to data collection, recognising that information may not yet be available and that information gaps for future improvements should be reported as well as the need to consider uncertainties in data. Collection of baseline information should be continuous as the SA process informs plan-making as new information becomes available. The baseline information is presented below and structured around SEA themes which have been developed by MTCBC to ensure compliance with the Regulations, as well as compatibility with the National 'Well-being Goals' set in the Well-being of Future Generations (Wales) Act 2015. It will be reviewed at each stage of the plan's preparation.
- 3.1.3 The proposed topic areas are grouped to accord with the Well-being of Future Generations (Wales) Act 2015 'improving the economic, social, environmental and cultural well-being of Wales'. The strong relationship between these areas is recognised.

#### Improving the social well-being of Wales:

1. Communities (inc. Population)
2. Health & Equalities
3. Education
4. Housing

#### Improving the economic well-being of Wales:

5. Economy & Employment
6. Connections (inc. Transport & Movement)
7. Energy

#### Improving the environmental well-being of Wales:

8. Climate Change
9. Biodiversity, Flora & Fauna
10. Water (inc. Flooding)
11. Air Quality
12. Noise



- 13. Minerals, Land & Soil
- 14. Waste

Improving the cultural well-being of Wales:

- 15. Cultural Heritage (inc. Welsh Language) & Historic Environment
- 16. Landscape & Townscape (inc. Built Environment)

- 3.2 The following tables highlight the instances where MTCBC's officers consider there is a strong relationship between the proposed SA topics and a National Well-being Goal (Table 3.1) and between the proposed SA topics and a topic identified in the SEA regulations (Table 3.2).

**Table 3.1: Strong relationship between Well-being Goals and SA Topics 2016**

Well being goals Proposed Topics 2016	A prosperous Wales	A resilient Wales	A healthier Wales	A more equal Wales	A Wales of cohesive communities	A Wales of vibrant culture & thriving Welsh language	A globally responsible Wales
Communities (inc. Population)							
Health & Equalities							
Education							
Housing							
Economy & Employment							
Connections (inc. Transport & Movement)							
Energy							
Climate Change							
Biodiversity, Flora & Fauna							
Water (incl. Flooding)							
Air Quality							
Noise							
Minerals, Land & Soil							
Waste							
Cultural Heritage (inc. Welsh Language) & Historic Environment							
Landscape & Townscape (inc. Built Environment)							

**Table 3.2: Strong relationship between SEA Regulation Topics and SA Topics 2016.**

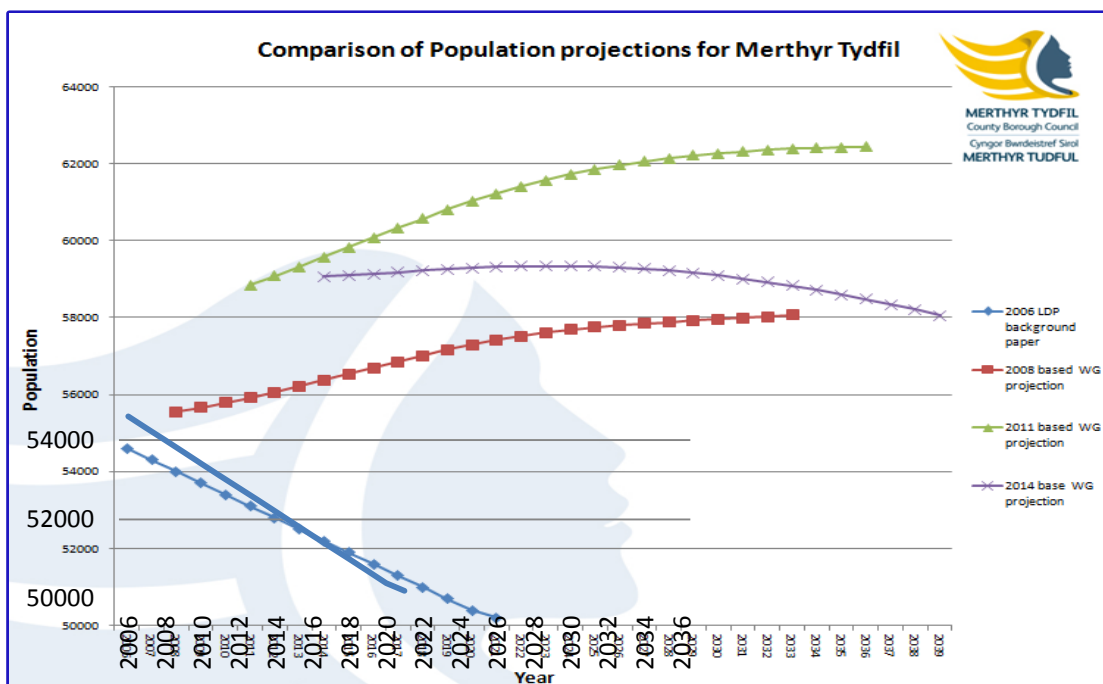
SEA Topics Proposed Topics 2016	Air	Biodiversity	Climatic Factors	Cultural Heritage	Fauna	Flora	Human Health	Landscape	Material Assets	Population	Soil	Water
Communities (inc. Population)												
Health & Equalities												
Education												
Housing												
Economy & Employment												
Connections (inc. Transport & Movement)												
Energy												
Climate Change												
Biodiversity, Flora & Fauna												
Water & Flooding												
Air Quality												
Noise												
Minerals, Land & Soil												
Waste												
Cultural Heritage (inc. Welsh Language) & Historic Environment												
Landscape & Townscape (inc. Built Environment)												

## SA Topic Areas (current situation, trends and evolution without the Plan)

### 3.3 Communities (Incl. Population)

- 3.3.1 This topic explores the demographics of the County Borough and identifies potential issues that the new LDP will need to consider. The latest Mid Year Estimate, for 2015, shows that the population is 59,324.
- 3.3.2 Contrary to the baseline review that informed the current adopted LDP, the population of the County Borough had actually started to increase from 2003, not continue to decline by several hundred people per year as initially thought.

**Figure 3.1: MTCBC trend based population projections**



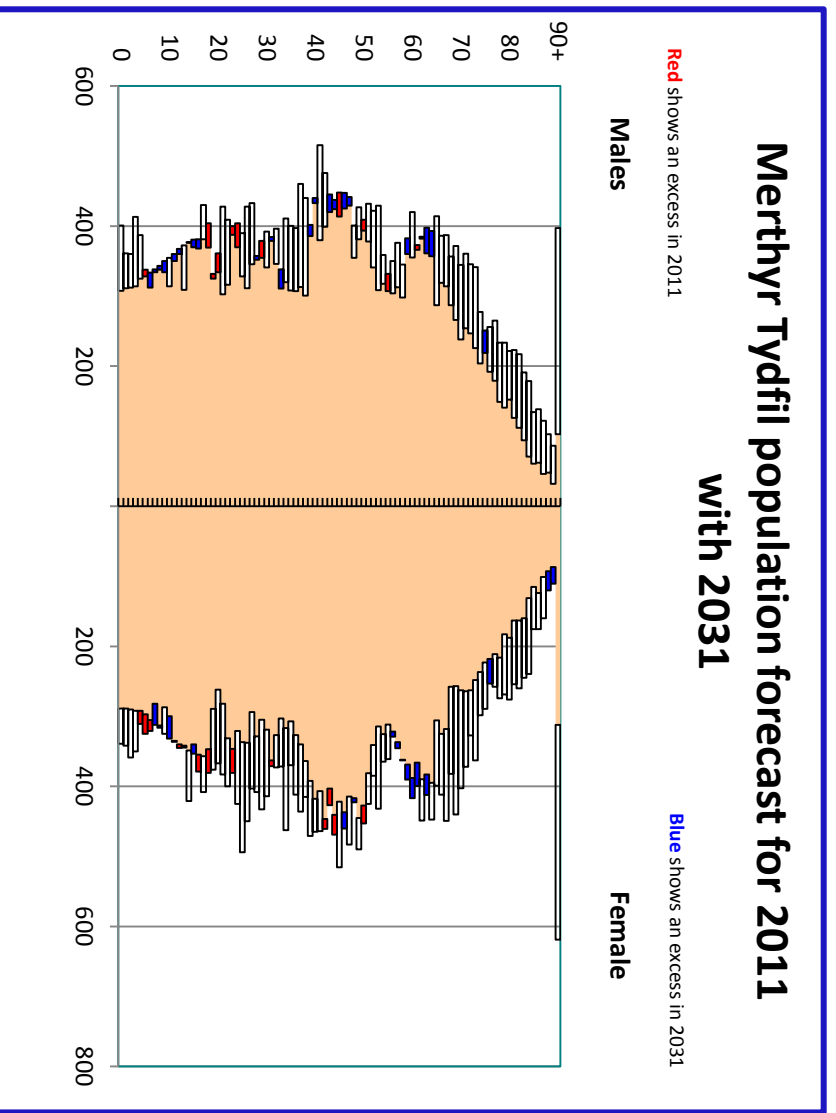
- 3.3.3 There is a marked difference to the baseline information provided for the existing LDP in 2006. The existing LDP strategy was to reverse population decline in the first 5 years of the plan, to 2011, before managing a period of enhanced growth until 2021. More up to date information shows that population growth has slowed. However, the population is still growing and the replacement LDP will need to contribute to managing this issue.

**Figure 3.2 Age Profile**

AGE GROUP	0 15	16 64	65+	TOTAL
2001	12018	35130	9059	56207
2002	11767	35210	9019	55996
2003	11617	35279	9059	55955
2004	11493	35396	9131	56020
2005	11423	35687	9149	56259
2006	11245	36176	9206	56627
2007	11181	36699	9293	57173
2008	11184	37145	9359	57688
2009	11122	37493	9541	58156
2010	10973	37777	9743	58493
2011	10969	38026	9856	58851
2012	11013	37749	10136	58898
2013	11002	37687	10332	59021
2014	11017	37473	10575	59065

- 3.3.4 In terms of the age profile of the population, the most significant change since 2001 has been the increase in the working age population (16-64) from 35,130 in 2001 to a peak of 38,026 in 2011, dropping back slightly by 2014. The population over 65 has increased from 9,059 to 10,575, increasing from 16% of the population to 18%. The population aged under 16 has decreased from 12,018 (21%) in 2001, to 11,017 (18.6%) in 2014. These figures would indicate that the population increase has largely taken place due to a combination of in-migration of people of working age, and an ageing population.
- 3.3.5 The most recent Welsh Government population projections (2014 based – published in 2016) indicates that the County Boroughs population will continue to increase up to 2024, before declining.

**Figure 3.3: Welsh Government Principal Population Projection**



Where the age pyramid shows 'RED', there has been a decrease to the 'PEACH' by 2031. Where it shows 'BLUE', there has been an increase from the 'PEACH' to the 'BLUE' by 2031.

**3.3.6** Between 2011 and 2031, there are projected to be decreases in the number of under 5's; young adults aged 18-30; and people aged between 50 and 60. However there are also projected to be significant increases in the number of people at nearly every age above the age of 60, for both male and females.

**3.3.7** The considerable increase in the number of older people living in the County Borough raises issues about not just the number of dwellings to be provided, but also the type of accommodation required. For instance there may be a need for smaller dwellings, with scope for assisted living/sheltered accommodation uses. There is a general increase in the number of school-age children in the County Borough and this could raise issues in terms of capacity of existing education facilities.

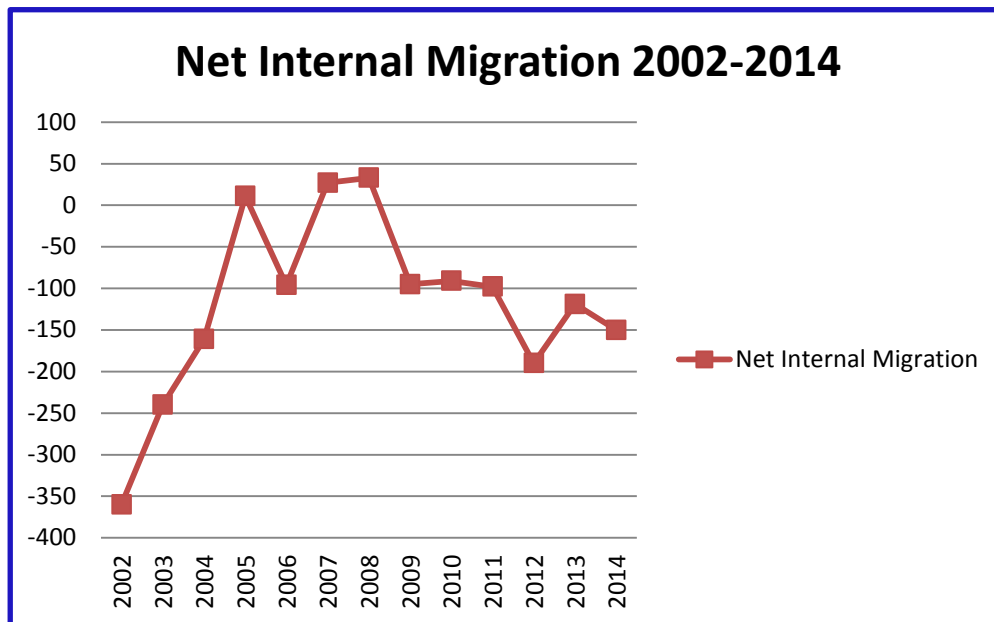
**3.3.8** The projected decrease in the number of young adults is a trend that has been an issue in Merthyr Tydfil for some time. The LDP can help to address this issue by facilitating development that would aim to increase retention of young adults such as increasing the supply of good quality, affordable housing, increasing employment opportunities through allocating land for employment uses and improving access to employment opportunities in the wider region.

**Figure 3.4: Population change 2001-2014 by ward**

Ward	2001	2014	Population change	%
Bedlinog	3431	3301	-130	-3.8
Cyfarthfa	6161	7215	1054	17.1
Dowlais	6743	6843	100	1.5
Gurnos	5090	5299	209	4.1
Merthyr Vale	3929	3816	-113	-2.9
Park	4308	4131	-177	-4.1
Penydarren	5309	5471	162	3.1
Plymouth	5005	5284	279	5.6
Town	6496	7907	1411	21.7
Treharris	6260	6325	65	1.0
Vaynor	3475	3473	-2	-0.1
<b>TOTAL</b>	<b>56207</b>	<b>59065</b>	<b>2858</b>	<b>5.1</b>

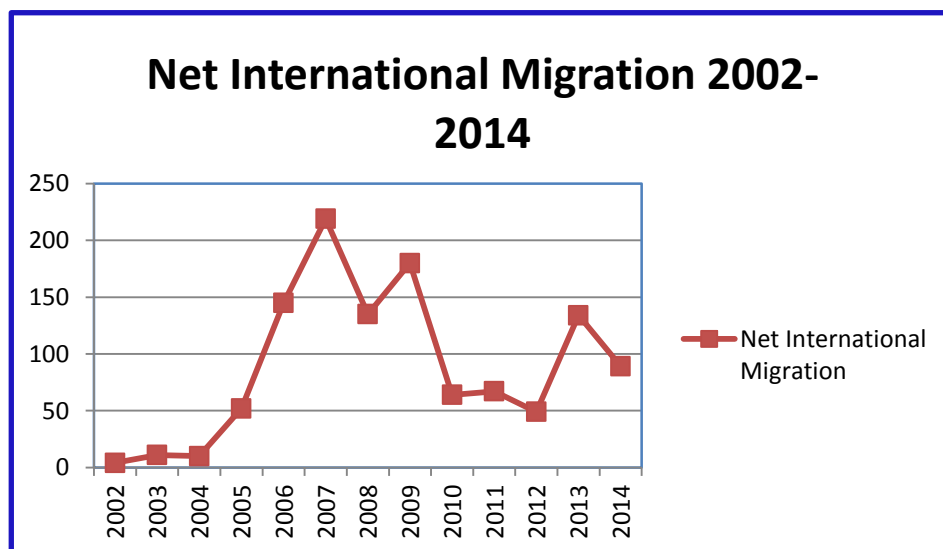
- 3.3.9 The above table shows the population change by ward between 2001 and 2014. There has been an increase in 7 of the 11 wards. However the majority of population growth has taken place in the Town and Cyfarthfa wards with an increase of 2465 people between just these 2 wards.
- 3.3.10 Several wards saw a decline in population, but overall the County Borough's population grew by 5.1% up to 2014. The LDP will need to carefully consider the distribution of any proposed new development (in particular housing) to ensure that any future growth is sustainable in nature, particularly in wards where there has been significant population growth and house-building in the recent past.
- 3.3.11 Natural change has seen a significant difference since the baseline data was last examined to inform the existing LDP. Since 2005, there has generally been a rise in the birth rate, and a decrease in the death rate, resulting in positive natural change for the first time since the early 1990s.
- 3.3.12 Whilst both the birth and death rate have decreased in the last two years, this trend raises two potential issues for a new LDP. Firstly, the increased birth rate may place stress on education provision initially depending on the current capacity of primary schools in the County Borough. Secondly, the lower death rate would indicate a higher number of elderly people in the County Borough, which could result in an increased demand for adult social services facilities such as care homes.

**Figure 3.5: Net Internal Migration 2002 -2014**



- 3.3.13 Despite the population of the County Borough increasing during the past decade, there has still been a negative net internal migration in the County Borough since 2008. This was an issue raised during preparation of the existing LDP and it would still appear to be a subject that the new LDP will need to address.
- 3.3.14 Given the increase in birth rate and decrease in death rate, coupled with a positive net international migration, it would appear that a key issue in the area would be to retain the existing population, (probably of working age), by improving both the attractiveness of the area for people to live in, and by increasing employment opportunities in the County Borough.

**Figure 3.6: Net International Migration 2002 -2014**



- 3.3.15 International migration is one of the key factors in Merthyr Tydfil's recent population. Between 2005 and 2014 it contributed over 1100 people to the population of Merthyr Tydfil. If this trend continues, the LDP should seek to ensure that development proposals consider the needs of all different ethnic groups and encourage mixed communities. However it should be noted that international migration data is less robust than internal migration and natural change because figures are based on a small sample of surveys carried out at entry points to the UK. Furthermore, its future influence is uncertain following the 2016 referendum on membership of the European Union.

#### ***Evolution without the Plan***

- 3.3.16 Without the Plan there is likely to be a less coordinated approach to the delivery of new housing and other development required by the changing population. The LDP is an opportunity to set out policies and land use allocations that help to guide development in a logical and sustainable manner, resulting in development taking place in the right place, at the right time, to address relevant issues within Merthyr Tydfil County Borough.

#### ***Key Issues:***

- The latest (2014) population projections show a declining population from 2024 onwards.
- It is projected that the demographic profile will move towards there being a greater proportion of the population aged 60 and over.
- All population scenarios will have an impact on a wide range of infrastructure such as education facilities, health facilities and leisure facilities.
- The distribution of any population and housing growth must be considered carefully to ensure that existing community services and infrastructure can cope, or that planned new infrastructure and services can be delivered to ensure communities remain sustainable.
- There is still a trend of losing working age people to elsewhere in the UK.
- Uncertainty over future influence of international migration because of the referendum on leaving the EU.

### **3.4 Health and Equalities**

- 3.4.1 This topic explores the health of residents within Merthyr Tydfil, as well as existing inequalities and areas of deprivation. It also identifies the types of leisure and recreational facilities available, and how the built environment currently contributes to encouraging healthy and active lifestyles.
- 3.4.2 The health of people in MTCBC is generally worse than the Welsh average. Life expectancy for both men and women is lower than the Wales average. Deprivation is higher than average, with MTCBC ranking only behind Blaenau Gwent in the



overall comparison of the Welsh Index of Multiple Deprivation (WIMD) 2014 (22.2% of LSOAs are ranked in the 10% most deprived in Wales) (Welsh Government, 2014). In 2012, 28% of 0-19 year olds lived in relative income poverty, and 16% of children and young people lived in severe poverty (Save the Children, 2012) . Both male and female life expectancy is lower than the Wales average, with MTCBC having the fourth and third lowest life expectancies, respectively, in Wales (Welsh Government, 2014).

- 3.4.3 The adult obesity rate is higher than the Wales average and is fourth highest in Wales. Levels of adult smoking are also higher than average. The mental component summary score for MTCBC is lower than average. Rates of substance misuse and early deaths from cancer are higher than the Wales average; however the rate of death from cardiovascular diseases is lower than the average.
- 3.4.4 Local authority health priorities in MTCBC are to ensure that people, who live and work in Merthyr Tydfil, are supported to enjoy a healthier and better quality of life. The key priority areas for action to achieve this are: promoting healthy lifestyles and in particular reducing the harm caused by smoking, a reduction in obesity, physical activity and promoting good sexual health; mental health and emotional well-being; promoting independence; and meeting the needs of vulnerable children (Merthyr Tydfil County Borough Council, 2013 -2017).
- 3.4.5 The most deprived areas (LSOAs) are mainly in the north of the County Borough (Penydarren 1, Dowlais 1, Gurnos 1, Gurnos 2, Gurnos 3, Park 3 and Cyfarthfa 2), with one area being in the south (Merthyr Vale 2) (Merthyr Tydfil County Borough Council, 2013 -2017) . In terms of the domains (particular aspects of deprivation), the following local characteristics have been identified:
- Health and Employment - 30.6% and 25% (respectively) of LSOAs in MTCBC are ranked in the 10% most deprived Wales. This is the highest percentage in Wales.
  - Education - 25% of LSOAs are in the 10% most deprived Wales. This is the second highest percentage in Wales.
  - Housing - 16.7% of LSOAs are in the 10% most deprived. This is the fourth highest percentage in Wales.
  - Housing - 13.9% of LSOAs are ranked in the most deprived. This is the seventh highest percentage in Wales.
  - Community Services - 8.3% of LSOAs are ranked in the most deprived. This is the tenth highest in Wales.
  - Conversely, in terms of Physical Environment no LSOAs are ranked in the most deprived in Wales, which is the joint lowest percentage.
  - Access to Services - 2.8% of LSOAs is ranked in the most deprived. This is the eighth lowest percentage in Wales.
- 3.4.6 The Merthyr Tydfil Open Space Strategy (2016) identifies eight types of locally important open spaces: allotments and community growing space, amenity greenspace, children and young people's space, civic space, green leisure corridors,

multifunctional greenspace, natural/semi natural greenspace, outdoor sports areas and pitches and public parks and gardens (Merthyr Tydfil County Borough Council, 2016).

- 3.4.7 The Open Space Strategy also identifies that:
- 37% of households [in MTCB], are within 600m walking distance of Children and Young People's Play Space;
  - 80% of households are within 400m - 2000m walking distance of Public Parks and Gardens;
  - 80% of households are within 1200m walking distance of Outdoor Sports Pitches;
  - 56% of households are within 400m walking distance of Natural - Semi Natural greenspace;
  - 58% of households are within 720m walking distance of Multifunctional Greenspace;
  - 36% of households are within 600m walking distance of Allotment and Community Growing Areas;
  - 31% of households are within 720m walking distance of Civic Spaces;
  - 18% of households are within 240m walking distance of Amenity Greenspace; and
  - 40% of households are within 300m walking distance of Green Leisure Corridors.
- 3.4.8 There are two leisure centres located within the plan area, at Rhydycar and Aberfan, and a number of private and smaller community outdoor and indoor facilities which offer formal and informal active and sports-related activities.
- 3.4.9 The Open Space Strategy identifies two Strategic Parks or Gardens in the plan area (Cyfarthfa Park in the north of the County Borough and Parc Taff Bargoed in the south), four major parks and gardens (Thomastown Park in the north and Aberfan, Treharris and Trelewis Parks in the south), and three small local parks or gardens (Dowlais Engine House and St Tydfil's Hospital Park in the north and Troedyrhiw Park in the south). There is also a sensory garden and 'Greenhouses' in Cyfarthfa Park.
- 3.4.10 The County Borough has approximately 87km of Public Rights of Way (PROWs), 23km of these lie within the BBNP. This includes cycle-ways which form part of the National Cycle Network (the Taff Trail, Celtic Trail and Trevithick Trail).
- 3.4.11 Areas of countryside and rights of way are well distributed on the slopes of the Taf Valley, which run north-south through the County Borough, and to the west and east of Merthyr Tydfil Town. The northern third of the County Borough is within the boundary of the BBNP. These areas provide a range of leisure and recreational opportunities for the local population, including the young, elderly and disabled.

### ***Evolution without the Plan***

- 3.4.12 The LDP can provide enhanced protection for green infrastructure networks, ensuring existing spaces are not lost to new development, and that new development contributes to enhancing assets, as well as seeking to achieve overall connectivity and equality of provision at the strategic scale.
- 3.4.13 New developments, existing green infrastructure and recreational areas can be designed to ensure accessibility and increase opportunities for healthy and active lifestyles. The LDP can also strategically target planning gains at most deprived areas, and thus seek to reduce inequalities. The LDP can therefore ensure that the built environment contributes to delivering health benefits, and supports healthy, inclusive and active communities. Without a Plan in place development is less likely to deliver health benefits. There would also be an increased likelihood of negative effects on green infrastructure networks and existing facilities (for example through loss of undesignated areas or established facilities, or fragmentation of spaces), and less clarity over the type of provisions expected within new development.

#### ***Key Issues:***

- Life expectancy is significantly below the Wales average.
- Obesity in the adult population is significantly worse than the Wales average.
- A mental health component summary score which is significantly lower than the Wales average.
- Higher Multiple Deprivation is experienced in the north of the County Borough.
- The accessibility to and sufficiency of open space varies by ward with some experiencing deficiencies.

### **3.5 Education**

- 3.5.1 Since work commenced on the adopted LDP in early 2006, some significant changes to education facilities within the County Borough have taken place. September 2013 saw the opening of the new Merthyr Tydfil College which incorporated the addition of 16-18 education which was previously located within the County Boroughs' secondary schools.
- 3.5.2 This change enabled Years 7 and 8 to relocate from Cyfarthfa Castle to Cae Mari Dwn, resulting in Cyfarthfa High School being on a single site (Ages 11-16). Previous projections from the Education department (which are also based on Welsh Government population projections) had shown secondary pupil numbers falling across the County Borough; however the latest projections indicate that the four secondary schools will have an increase in pupil number up to 2020. Three of the

four schools have the capacity to cope with this increase; however, Cyfarthfa High would reach capacity during 2019/2020.

- 3.5.3 The last 10 years have also seen a rationalisation with regard to Primary school provision. The overall number of Primary Schools has reduced from 25 to 22, primarily due to some schools that had separate infant and junior premises locating on a single site. There have also been new schools constructed at Heolgerrig, Ysgol Santes Tudful and Ynysowen Community Primary School. The most recent projections predict capacity issues at 3 schools by 2020 (Gellifaelog, Heolgerrig and Ysgol Rhyd y Grug).
- 3.5.4 These figures and the projections that some other schools will be nearing capacity at 2020 will need to be closely considered when looking at allocating housing development, as increases in residents in the catchment areas of these schools will need to be accounted for when looking at planning obligations/Community Infrastructure Levy.
- 3.5.5 The Planning Policy and Implementation section has worked closely with the Education Department to formalise catchment areas in the County Borough for the first time. The fact that these areas are now digitally mapped will result in the school capacity issue being fully considered when allocations for residential development are being considered. The 21st Century Schools Programme is underway and improvements under the second phase (Band B) are currently being identified.

#### ***Evolution without the Plan***

- 3.5.6 Without the Plan there is likely to be a less coordinated approach to the delivery of new education facilities. The LDP is an opportunity to set out policies and allocations that help to guide development of such facilities in a logical and sustainable manner, resulting in high quality educational facilities in suitable locations across Merthyr Tydfil County Borough.

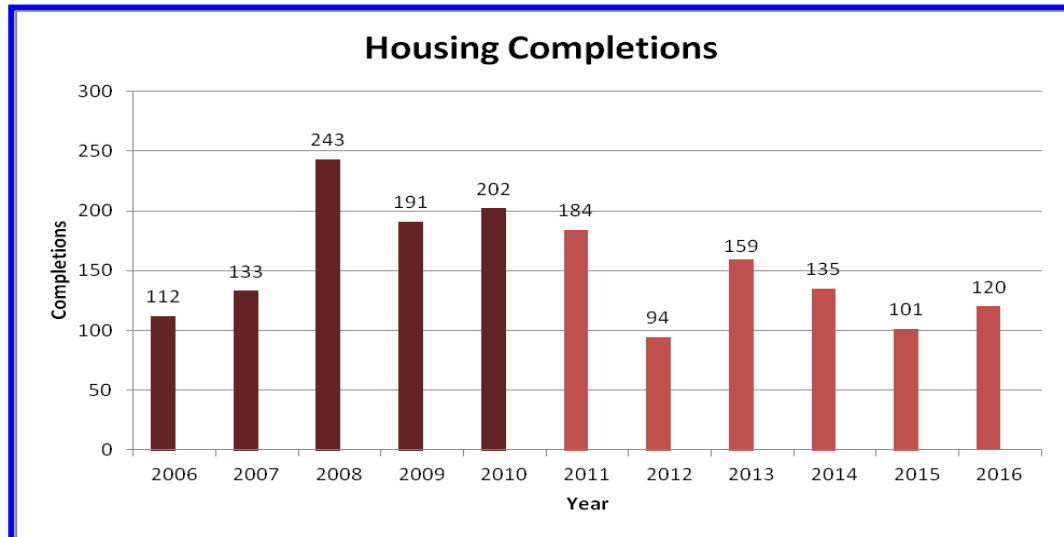
#### ***Key issues***

- Sustaining the existing level of population would lead to an increase in the number of school age children in the County Borough over the plan period potentially requiring extensions to existing schools or the construction of new schools.
- The spatial distribution of educational facilities needs to be considered carefully to ensure that facilities remain viable.
- Educational attainment at Key Stage 4 is below the Welsh Average.

### 3.6 Housing

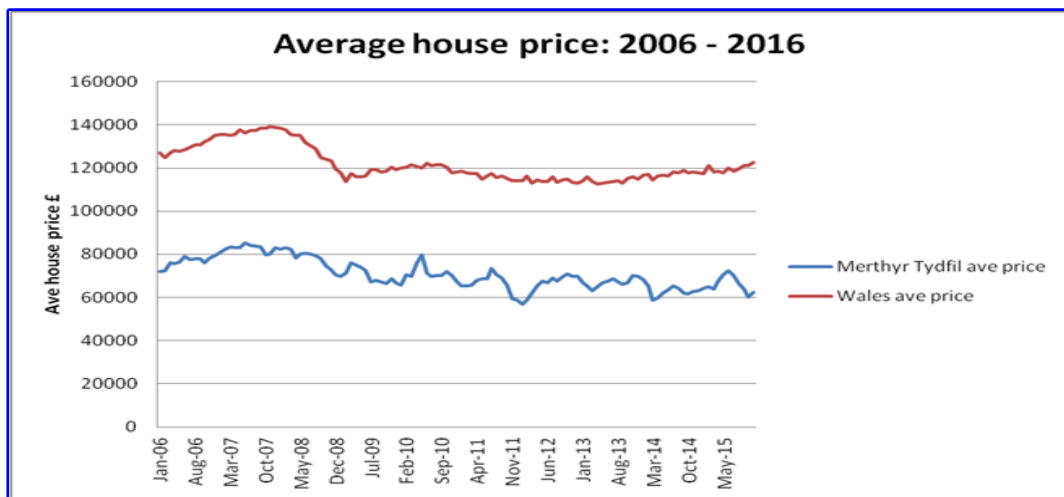
- 3.6.1 This topic explores the topic of housing in Merthyr Tydfil County Borough, looking at issues such as tenure and type, historic levels of housebuilding and the local housing market. The level of housebuilding required and demonstrating its deliverability is always an integral part of a Local Development Plan.

**Figure 3.7: Housing Completions**



- 3.6.2 The graph above shows the number of dwellings completed since the start of the existing LDP period in 2006. It is evident that even during the years with the highest level of building; the strategy requirement to build 253 dwellings a year was not achieved. The average number of completions over this period has been 152 dwellings per annum. Given this period of time includes both a ‘boom’ in the economy and a recession, this average can be seen as a reasonable reflection as to what level of housing can be delivered in Merthyr Tydfil County Borough.

**Figure 3.8: Average House Price 2006-2016**



- 3.6.3 Since 2006, the average house price in the County Borough has followed a similar trend to the Welsh average; peaking during 2007-2008. It is noticeable, however, that there have been larger peaks and troughs in Merthyr Tydfil, than is evident nationally, since the economic downturn. Whilst the average price has consistently been lower in Merthyr Tydfil than the Welsh average, affordability is still a key issue because of low wages in the County Borough and the accessibility of mortgages. The most recent Local Housing Market Assessment indicates a need for over 300 predominantly social rented affordable dwellings a year to ensure people have access to affordable housing.

**Figure 3.9: Housing Tenure**

<b>Tenure</b>	<b>Merthyr Tydfil</b>	<b>%</b>	<b>Wales</b>	<b>%</b>
Local Authority	0	0	88073	6.3
Registered Social Landlord	5869	22.2	135506	9.7
Owner occupied	16765	63.2	979852	70
Private Rented	3873	14.6	196641	14
<b>Total</b>	<b>26507</b>	<b>100</b>	<b>1400073</b>	<b>100</b>

- 3.6.4 The table above shows the difference between Merthyr Tydfil and the Welsh average in terms of the proportion of tenures in the County Borough. Merthyr Tydfil has a higher proportion of social housing than the Welsh average, although the Welsh figure is 16% when you combine RSLs and Local Authority stock (Merthyr Tydfil has no local authority owned housing stock).
- 3.6.5 These figures could be looked at in two ways. Retaining and increasing the number of RSL properties will mean that the supply of affordable housing is increasing, however, there is likely to be an aspiration to increase the number of owner occupiers in the County Borough, which by default will mean that more people are accessing market housing and potentially reducing the pressure in demand for affordable housing.

**Figure 3.10: House Types in Merthyr Tydfil**

Type	Number	%
Detached	3,813	15.7%
Semi-detached	6,907	28.5%
Terraced	12,020	49.5%
Flat	1,488	6.2%
Mobile or temporary structure	26	0.1%
In a shared dwelling	10	0.0%
<b>TOTAL</b>	<b>24264</b>	<b>100%</b>

- 3.6.6 As with most areas in the South Wales Valleys, there is a predominance of terraced housing. Whilst this proportion has decreased over the last 10-20 years, there is still a significant number of terraced dwellings that are nearing 100 years of age and this older stock will raise issues at some point in the future. There are approximately one thousand empty dwellings across the County Borough. Increasing the choice of house type and improving the quality of both new and existing stock will be a key issue for the replacement LDP.
- 3.6.7 *Poor Housing and Ill Health* (Wilkinson, 1999) summarises years of research evidence illustrating the correlation between housing and health, which supports the view that good quality housing has a role to play in both physical and mental health.
- 3.6.8 It must be recognised that the amount of house building in the County Borough is largely dependent on market conditions and the investment plans of the volume house builders. The replacement LDP can facilitate delivery by providing a clear policy framework.

#### ***Evolution without the Plan***

- 3.6.9 Without the Plan there is likely to be a less coordinated approach to the delivery of new housing, particularly affordable housing. The LDP is an opportunity to set out policies and housing allocations that help to guide residential development in a logical and sustainable manner, resulting in appropriate housing across Merthyr Tydfil County Borough.

### ***Key Issues***

- Sustaining the existing level of population would require an increase in the number residences in the County Borough.
- There is a significant need for the provision of Social Housing despite the relative affordability of living in Merthyr Tydfil.
- Intermediate affordable housing products need to be carefully considered.
- There is a need to facilitate a sustainable transition towards the housing needs of an aging population.
- A significant range in the quality and energy efficiency of the 'stock'.
- A significant number of 'empty properties'.
- Additional, better quality, housing is required to attract and retain people.
- The spatial distribution and phasing of new housing development must be considered carefully to ensure that it is viable and to ensure that existing infrastructure can cope, or that planned new infrastructure can be delivered to ensure communities remain sustainable.

## **3.7 Economy and Employment**

- 3.7.1 This topic explores the distribution and types of employment available within the plan area, as well as the working patterns of residents, including where these extend outside of the plan area.
- 3.7.2 At the time of writing the current Merthyr Tydfil LDP (2006), MTCBC had lower employment and economic activity rates than the Welsh and national averages. Merthyr Tydfil also experienced a higher rate of economic inactivity than the Welsh and national levels, in part because it also experienced proportionally higher levels of permanently sick or disabled people than Wales and Great Britain. The 2006 baseline highlighted that Merthyr Tydfil had less people engaged in managerial and professional jobs than comparative Welsh and national levels. It also highlighted that a significantly greater proportion of people in Merthyr Tydfil had no qualifications than across Wales and Great Britain. It also showed the shop vacancy rate in Merthyr Town Centre was lower than the British average.
- 3.7.3 The key messages for the LDP were to ensure an adequate supply of land for housing, employment, healthcare, leisure and recreation and to encourage the provision of training facilities, to support the Town Centre through policies enforcing a retail hierarchy and encouraging business start ups and the rural economy through policies to encourage appropriate rural development. It was also noted that an increase in construction jobs was desirable and that an increase in construction rates was likely to help achieve this.



- 3.7.4 The main industries of employment within Merthyr Tydfil County Borough include public administration, education and health (38.6%), wholesale and retail, including motor trades (16.5%), manufacturing (14%), financial and other business services (10.5%) and accommodation and food services (5.6%) (Welsh Government, 2014).
- 3.7.6 Employment in manufacturing and construction has notably decreased between 2001 and 2014 (8.3% and 4.1% decrease respectively), with employment in agriculture, mining, energy and water also decreasing during this period. The most notable increase in employment has been in the public sector (9.3% increase), with employment in accommodation and food services and financial and other business services also increasing (Welsh Assembly Government, 2016).
- 3.7.6 In 2014, employment trends in MTCBC generally followed those of Wales and the UK. However, there are higher than average amounts of people working in public sector and manufacturing jobs in MTCBC than in Wales and the UK as a whole. Conversely, MTCBC has less people working in financial and other business services than the national average.
- 3.7.7 The number of people in employment within MTCBC has fluctuated since 2001 but has generally increased from 58% to 66% in March 2016. However, this was lower than the Welsh average of 72.6%. MTCBCs employment rate has been lower than the average for Wales between 2001 and 2016. Economic activity is also lower in MTCBC than in Wales (71.5% and 75.3% in March 2016 respectively). It should be noted that economic activity includes both people in employment and those who are unemployed but actively looking for work (Nomis, 2016).
- 3.7.8 The unemployment rate in MTCBC in March 2016 was 6.5% and has been generally decreasing since 2011/12 (when the rate was 13.1%). However, this is above the Wales average in March 2016 of 4.6%. MTCBC residents earn less than the Wales average in terms of gross weekly pay for full-time workers (£426 in 2015, compared to £484 nationally) and the medium hourly pay for male workers in the MTCB area in 2015 was £10.49 compared to £10.22 for female workers, this has been the trend since 2003 (Welsh Assembly Government, 2016).
- 3.7.9 In 2014 there were 200 business births in MTCBC, i.e. 15.5 start-ups for every 10,000 people of working age. This was higher than the Wales average which was 12.3 per 10,000 people of working age. The number of business start-ups in MTCBC has fluctuated since 2002 but has generally increased. The number of business deaths in MTCBC in 2014 was 175, which is 13.6 deaths for every 10 000 people of working age. This was higher than the Wales average which was 9.2 (Welsh Government, 2014).
- 3.7.10 In 2006, MTCBC had a higher percentage of people employed as managers, directors and senior officials than the Wales average. However since then the percentage has remained below the national average. Similarly, the percentage employed in professional and associated professional and technical occupations has been below the Wales average since 2004. The percentage employed in

administrative and secretarial occupations and skilled trades was above the Wales average in 2015 and has fluctuated between being above and below the average since 2004 (Welsh Government, 2014).

- 3.7.11 The percentage employed in caring, leisure and other service occupations, sales and customer service occupations, process, plant and machine operatives and elementary occupations has been above the Wales average for the vast majority of the time since 2005. MTCBC therefore has above average numbers of people employed in lower paid/less skilled occupations and relatively low numbers of people employed in higher paid/more skilled occupations (Welsh Government, 2014).
- 3.7.12 The tourism industry is recognised as being a vital contributor to the Merthyr Tydfil economy. The Destination Management Plan (DMP) 2013 (Merthyr Tydfil County Borough Council, 2013) resulted in the development of the BikePark Wales which to date has been visited by over 155,000 people; restoration of Cyfarthfa Leat and Old Gurnos Tramway launched in 2013 which received over 30,000 visitors in its first year; regeneration of Merthyr Tydfil Town Centre with the aim of increasing visitor numbers and business prosperity and 8 new accommodation businesses established in the region.
- 3.7.13 The percentage of the working age population of MTCBC who hold qualifications of NVQ1-NVQ4 and above has been increasing since 2004, although, these percentages are all below the Wales average. The percentages that hold 'other' qualifications (foreign or professional qualifications) have been above the Wales average since 2004 (with the exception of 2009). The percentage of people with no qualifications has been above the Wales average since 2004, but has been decreasing during that time to 15% in males and 12.4% in females in 2014 (Welsh Government, 2014). Research has found that people in work with no qualifications are more likely to be in elementary, process plant and machine operatives or sales and customer service occupations which are projected to decline up to 2020 (Owen, 2012).
- 3.7.14 The number of people who are self-employed in MTCBC has fluctuated since 2004, but has experienced a general increase from 3.5% to 5.9% of economically active people in employment. The percentage of self-employed people in MTCBC has consistently been below the Wales average since 2004.
- 3.7.15 Transport and transport costs can be a barrier to accessing work opportunities. Access to a car and or inexpensive and flexible public transport can aid travelling further afield to work and wider employment opportunities (Whealle, 2016) (see also 3.8.8 below).
- 3.7.16 The percentage of vacant commercial units in Merthyr Tydfil in 2003 was 9.8%. This had increased to 16.7% in 2015, which is above the national average of 15% (Welsh Government, 2014).

### ***Evolution without the Plan***

- 3.7.17 Without the Plan there is likely to be a less coordinated approach to the delivery of new employment, housing and infrastructure in MTCBC. New employment and infrastructure is less likely to be delivered where it is needed most. This could affect the current trends of increasing economic activity and decreasing economic inactivity. It could also reduce opportunities to address existing issues, such as the over-reliance on public sector jobs, the relatively low numbers of people employed in higher paid/more skilled occupations, and the higher than average commercial vacancy rate.

#### ***Key Issues:***

- The employment rate in MTCBC is increasing but is still below the Wales average.
- Gross weekly pay is lower than the Wales average.
- Relatively low numbers of people are employed in higher paid/more skilled jobs.
- Key economic sectors include the public sector and service sectors.
- There are relatively low outflows of retail and convenience spending.
- Commercial vacancy rates are higher than the Wales average.
- Very little new development on employment land over the past 5 years.
- Competition from other areas in UK.

### **3.8 Connections (Transport and Movement)**

- 3.8.1. This topic explores existing and planned transport infrastructure, existing local transport constraints, and patterns of movement across the plan area. This topic is closely linked with the topics of *air quality* and *climate change*, as potential effects on traffic are likely to lead to indirect effects on air quality and levels of greenhouse gas emissions.
- 3.8.2 Merthyr Tydfil County Borough is located at the intersection of the A470 (T) and A465 (T), and the A470 (T) and A472. The County Borough lies 25 minutes north of Cardiff and the M4 corridor, with Cardiff International Airport being 30 miles away. Birmingham and London are approximately 2 and 3 hours travelling time respectively.
- 3.8.3. Merthyr Tydfil is the main settlement in the Plan area and Pentrebach and Dowlais are the main focus for industrial development. The key major roads in the County Borough are the A470 (linking north and south Wales), the A465 (linking the Heads of the Valleys), the A4060 (linking the A465 to the A470) to the east of Merthyr Tydfil Town and the A472 (cross-valley link). The A470 runs from Cardiff to Llandudno passing through the County Borough to the west of Merthyr Tydfil Town. The A470 is dualled south of the A465, Heads of the Valleys Road. There is

an ongoing Welsh Government project to widen and improve the A465. There are few residential properties in close proximity to these roads, but the A4060 is linked to the town centre by Twynyrodyn Road which has relatively high traffic flows as a result.

- 3.8.4 Merthyr Tydfil Town Centre (in the north of County Borough) contains the County Borough's main bus station and railway station. The Merthyr Tydfil railway station is the terminus of the railway line connecting Merthyr Tydfil with Barry in the south, via Cardiff and Pontypridd. Proposals for a 'Metro' are likely to materialise in the plan period under the 'City Deal'. The Metro is expected to deliver better passenger facilities and community focal points around key stations, and stimulate opportunities for more strategic development and regeneration across the region. Four other railway stations are located within the County Borough – Pentrebach, Troedyrhiw, Merthyr Vale and Quakers Yard. Treharris bus station (in the south of the County Borough) is also an important transport hub. The County Borough also contains Public Rights of Way, cycle-ways which form part of the National Cycle Network (see paragraph 3.6.10) and 27 Active Travel Routes (Merthyr Tydfil County Borough Council, 2016).
- 3.8.5 The 2001 Census indicated that 14301 people aged 16-74 (36.1% ) travelled to work by car or van (driver or passenger) in Merthyr Tydfil, and that 1844 (4.71%) travelled to work using public transport. 2125 (5.3%) travelled on foot and 111 people (0.3%) travelled by bicycle (see Figure 3.11) (Office for National Statistics, 2001).

**Figure 3.11: Method of travel to work in Merthyr Tydfil and Wales (2001 & 2011 Census)**

Method of Travel to Work	2001 Census	%	Wales %	2011 Census	%	Wales %	2011 Rank /348 (England & Wales)
<b>All People (16-74)</b>	39,789			43,377			
Works mainly at or from home	1,225	3.1	5.56	1,680	3.9	3.26	336
Underground, metro, light rail, tram	4	0.01	0.03	24	0.1	0.05	253
Train	220	0.6	0.7	460	1.1	1.22	214
Bus, minibus or coach	1,620	4.1	3	1,724	4.0	2.8	114
Taxi or minicab	125	0.3	0.29	209	0.5	0.29	49
Driving a car or van	11,868	30	35	15,788	36.4	40.92	241
Passenger in a car or van	2,433	6.1	5.13	2,620	6	4.13	3
Motorcycle, scooter or moped	89	0.2	0.43	77	0.2		347
Bicycle	111	0.3	0.79	80	0.2	0.88	348
On foot	2,125	5.3	5.91	2,333	5.4	6.46	220
Other	67	0.2	0.31	104	0.2	0.39	282
Not currently working	19,902	50.0	42.84	18,278	42.1	39.26	17

- 3.8.6 The 2011 Census indicated that 18408 people (37%) travelled to work by car or van, and 2208 people (5.2%) travelled to work using public transport. 2333 (5.4%) travelled on foot and 80 people (0.2%) travelled by bicycle. The data indicates that MTCBC ranked 348 of 348 Local Authorities in England and Wales in terms of the number of people travelling to work by bicycle. The data also shows that the County Borough ranked 3 of 348 in terms of car sharing (Passenger in a car or van) (Office for National Statistics, 2011).
- 3.8.7 Merthyr Tydfil ranks 348 of 348 in England and Wales for the proportion of its workforce travelling to work by bicycle. This is potentially indicative of factors such as the quality of facilities and provision for cyclists, road safety concerns, topography and climate. Merthyr Tydfil does, however, benefit from excellent recreational cycling infrastructure being on the 'National Cycle Network Routes 8 & 477' and home to 'Bike Park Wales'.
- 3.8.8 Figure 3.12 indicates the distances that people from Merthyr Tydfil County Borough travel to work and Figure 3.13 shows that the average distance travelled to work by people from Merthyr Tydfil is slightly lower than the average for Wales.

- 3.8.9 There is also a relatively low level of pedestrian commuting. The data also shows that, although 22.8% of people travel less than 2km to work, only 5.4% travel on foot, indicating a low proportion of pedestrian commuting. This is again potentially indicative of factors such as the quality of facilities and provision for pedestrians, the quality and legibility of PROWs, road safety concerns, topography and climate. It may also be indicative of a relatively high proportion of people travelling to work by bus, approx. 7% of those in work choosing this means of travel. This may indicate good local service (frequency and destination) and of good facilities and accessibility.

**Figure 3.12: Distance travelled to work Merthyr Tydfil (2001 & 2011 Census)**

Distance travelled to work	2001	%	2011	%
All categories:	19,887		25,099	
Less than 2km	5,101	25.6	5,719	22.8
2km to less than 5km	4,381	22.0	5,258	21.0
5km to less than 10km	2,431	12.2	2,784	11.1
10km to less than 20km	2,503	12.6	3,098	12.3
20km to less than 30km	1,718	8.6	2,235	8.9
30km to less than 40km	1,152	5.8	1,425	5.7
40km to less than 60km	178	0.9	265	1.1
60km and over	441	2.2	669	2.7
Work mainly at or from home	1,225	6.2	1,680	6.7
Other	757	3.8	1,966	7.8
Total distance (km)	245,987		331,620	
Average distance (km)	13.7		15.5	

**Figure 3.13: Average distance travelled to work Merthyr Tydfil & Wales (2001 & 2011 Census)**

Area	2001	2011
Wales	14.8	16.7
Merthyr Tydfil	13.7	15.5

- 3.8.10 The total outflow of employed commuters from MTCBC was 7143 in 2001, and 8057 in 2011. Figure 3.14 shows that, of those people with jobs, 12,749 lived and worked in the County Borough in 2001. This increased to 17,032 in 2011. It is therefore critical that there are safe and accessible opportunities provided to access key areas of employment by active travel, in particular in and across Merthyr Tydfil. Figure 3.14 also indicates the commuting flows between other Local Authority areas in 2001 and 2011 for comparative purposes.

**Figure 3.14: Commuting flows from Merthyr Tydfil to other local authority areas in Wales (2001 & 2011 Census)**

Local Authority	Inflow 2001	Outflow 2001	Net inflow/ outflow 2001	Inflow 2011	Outflow 2011	Net inflow/ outflow 2011
Blaenau Gwent	578	541	37	910	536	374
Bridgend	86	129	-43	110	243	-133
Caerphilly	1,691	1,281	410	2,240	1,663	577
Cardiff	558	1,829	-1271	737	1,956	-1,219
Merthyr Tydfil			12,749*			17,032*
Monmouthshire	130	141	-11	147	158	-11
Neath Port Talbot	150	81	69	239	171	68
Powys	139	86	53	226	219	7
Rhondda Cynon Taff	2,118	1,874	244	3,197	2,230	967
Swansea	107	103	4	206	174	32
Vale of Glamorgan	123	181	-58	118	143	-25

\*Live and work in Merthyr Tydfil.

- 3.8.11 Figure 3.15 shows that, while car and van ownership in Merthyr Tydfil has increased between 2001 and 2011, the amount of households in the County Borough which do not own a car or van (30%) is below the average for Wales (22.92%). 2016 figures show that the percentage of car ownership in MTCB was 70.3% compared to 77.1% in Wales (Whealle, 2016)

**Figure 3.15: Car ownership in Merthyr Tydfil & Wales (2001 & 2011 Census)**

Car ownership	2001	%	2011	%	Wales %
All households	23,147		24,264		
No cars or vans	8,140	35.2	7,213	30	22.92
1 car or van	10,313	44.6	10,486	43.2	42.98
2 cars or vans	3,851	16.7	5,091	21	25.8
3 cars or vans	663	2.9	1,116	4.6	6.13
4 cars or vans	180	0.8	358	1.5	2.17
Total cars or vans	20,813		25,622		

- 3.8.12 In 2014 Merthyr Tydfil County Borough had 329km of roads comprising 37km of trunk road, 28km of county roads, 47 km of B & C class roads and 218km of minor surfaced roads. Figure 3.16 shows that the proportion of roads requiring further

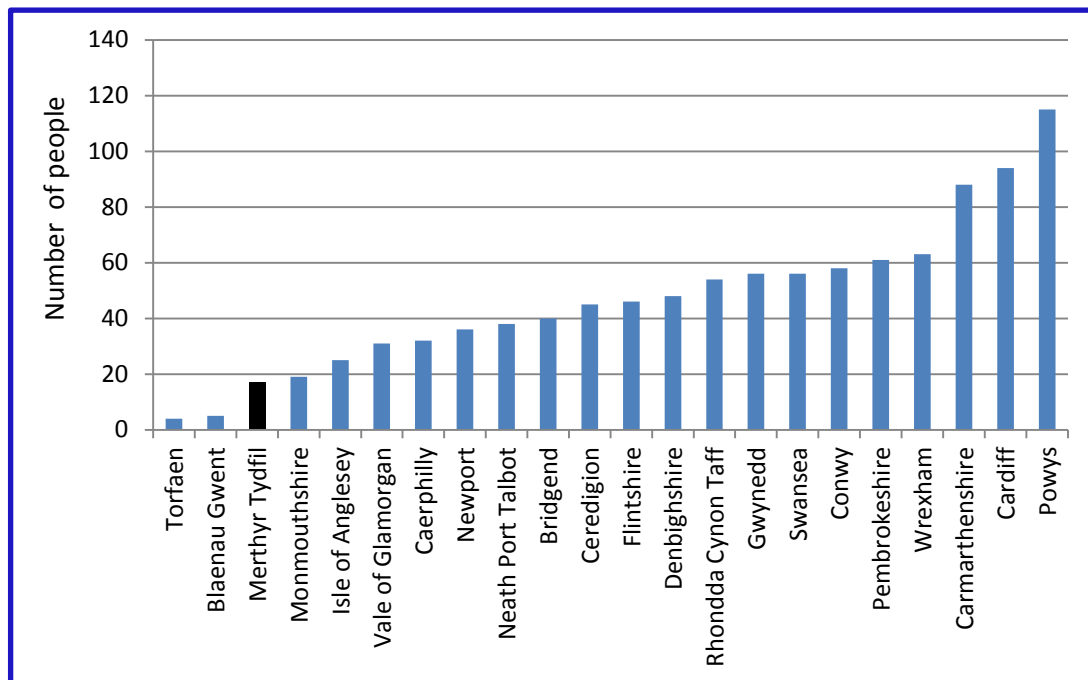
investigation due to their condition decreased from 7.6% to 5.9% in Merthyr Tydfil which is also below the average for Wales (StatsWales, 2014).

**Figure 3.16: Proportion of LA road network in need of further investigation due to condition**

Local Authority	Percentage of Principal A, B roads and C roads in need of further investigation (a)	
Year	2013-14	2014-15
Merthyr Tydfil	7.6	5.9
Wales	13.2	11.9

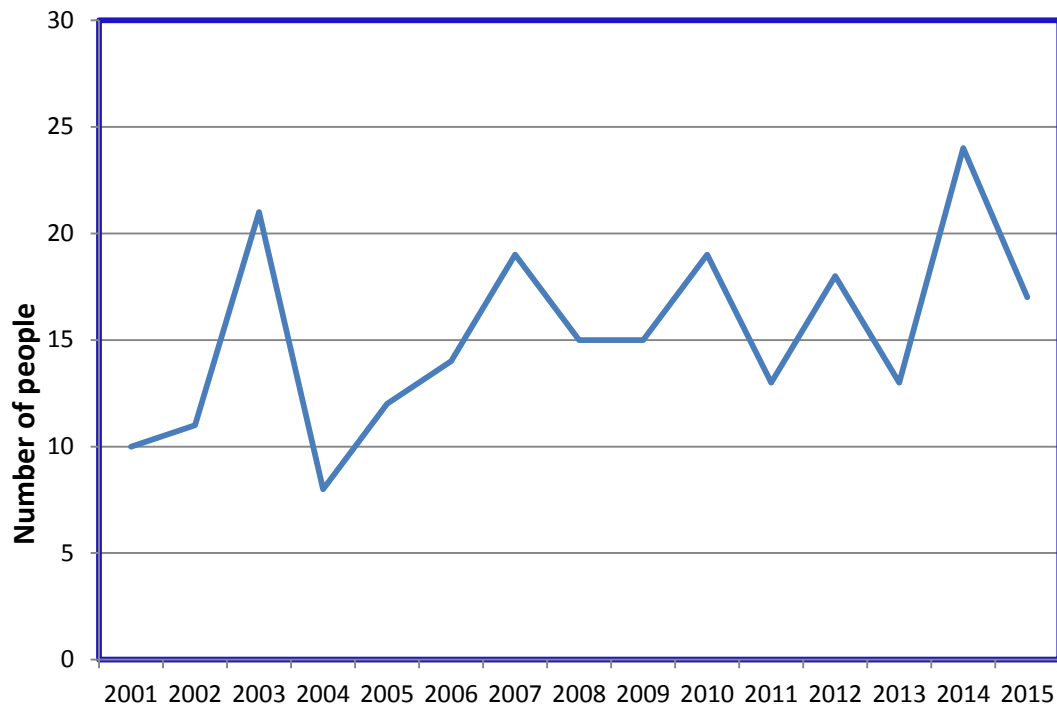
3.8.13 Figures 3.17 and 3.18 indicate that, while the number of people killed or seriously injured on roads in Merthyr Tydfil in 2015 was relatively low, in comparison to the amounts recorded for other local authorities in Wales, the number has been generally increasing since 2001.

**Figure 3.17: People killed or seriously injured on roads 2015 (Stats Wales)**



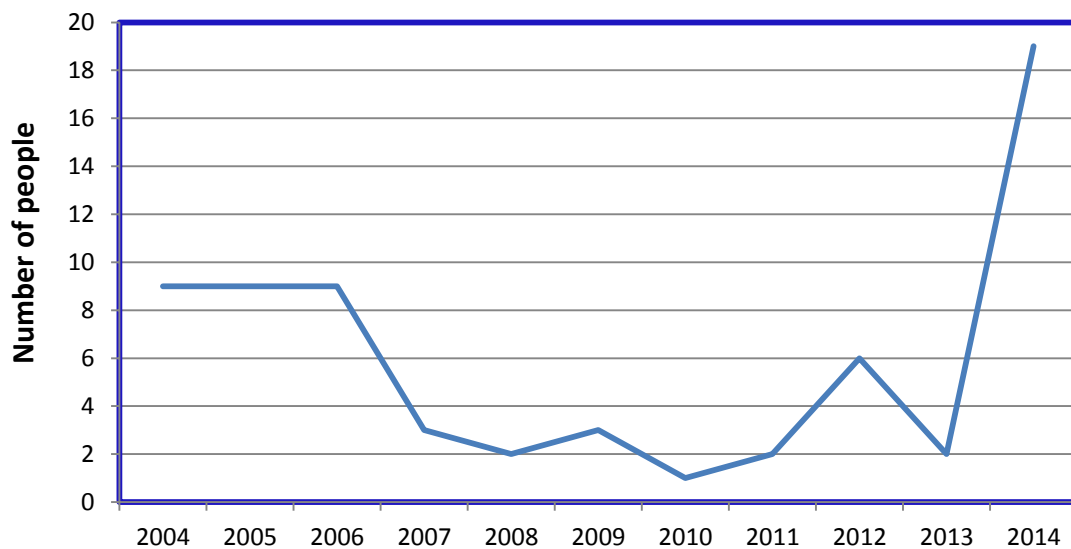


**Figure 3.18: People killed or seriously injured on roads in Merthyr Tydfil (Stats Wales)**



3.8.14 Figure 3.19 indicates that while the number of pedal cycle casualties in Merthyr Tydfil has been generally decreasing, since 2012 there has been a substantial increase since this time. Figure 3.11 showed that the amount and proportion of people using bicycles to travel to work decreased between 2001 and 2011.

**Figure 3.19: Pedal cyclist casualties in Merthyr Tydfil (Stats Wales)**



- 3.8.15 Figure 3.20 indicates that, since 2006, there has been an 88.5% increase in rail passenger trips in the County Borough. This overall increase in public transport trips may be indicative of the recession, improvements in the rail service or increased congestion during peak hours around Cardiff.

**Figure 3.20: Railway station usage estimates Merthyr Tydfil**

Station Name/ Year	2006 07	2007 08	2008 09	2009 10	2010 11	2011 12	2012 13	2013 14
Merthyr Tydfil	295,884	301,772	320,722	381,484	437,230	452,706	481,696	547,026
Merthyr Vale	33,368	29,553	33,568	42,712	41,428	41,676	46,934	61,584
Pentre-Bach	11,064	12,217	11,010	14,764	16,240	19,752	21,756	28,334
Quaker's Yard	40,111	41,413	46,854	62,128	61,682	64,748	71,726	82,940
Troed-Y-Rhiw	25,026	22,890	23,528	34,390	32,496	31,564	34,662	44,544
<b>Total</b>	<b>405,453</b>	<b>407,845</b>	<b>435,682</b>	<b>535,478</b>	<b>589,076</b>	<b>610,446</b>	<b>656,774</b>	<b>764,428</b>

- 3.8.16 The South East Wales Valleys Local Transport Plan (January 2015) (SE Wales Valleys LAs, 2015) includes the five South East Wales Valleys local authorities of Blaenau Gwent, Caerphilly, Merthyr Tydfil, Rhondda Cynon Taf and Torfaen. Many of the issues identified in the LTP are common to the five South East Wales Valleys local authorities. In line with the Welsh Government's LTP guidance, the LTP focuses on those transport improvements that lie within the remit of the local authorities. However, the LTP also emphasises the close synergy required to schemes that lie within the remit of the Welsh Government, including improvements to the rail network and trunk roads. The development of the Local Transport includes a short term programme of specific schemes for each local authority area, as well as specific medium to long-term aspirations.

- 3.8.17 The LTP aims to:

- Develop the economy, through improving connectivity for business and freight, making transport more effective and efficient, providing access to employment, education, shopping and leisure, and improving transport integration;
- Promote social inclusion and equality, by providing a transport system that is safe, accessible, and affordable to all sections of the community; and
- Protect the environment, by minimising transport emissions and consumption of resources and energy, by promoting walking, cycling, quality public transport, modal shift and minimising demand on the transport system.

- 3.8.18 The LTP objectives build on the vision and are long-term (20+ years) objectives for transport in the SE Wales Valleys area. The objectives detailed below set the direction of the LTP and form the basis for activity in addressing the area's

transport issues. The LTP objectives refer to ‘all’ users of the transport system, including vulnerable road users e.g. those with disabilities, young people, older people, cyclists, the equestrian community etc.

- **Safety and Security**
  - ◆ To reduce the number and severity of road traffic casualties.
  - ◆ To improve actual and perceived level of personal security when travelling.
- **Connectivity and Accessibility**
  - ◆ To improve access for all and promote equality of opportunity to employment opportunities, services, healthcare, education, tourism and leisure facilities.
  - ◆ To improve connectivity by sustainable transport between the SE Wales Valleys and the rest of Wales, the UK and Europe.
- **Quality and Efficiency**
  - ◆ To improve interchange within and between modes of transport.
  - ◆ To improve the quality, efficiency and reliability of the transport system.
  - ◆ To reduce traffic growth, traffic congestion and to make better use of the existing road system.
- **Environment**
  - ◆ To achieve a modal shift towards more sustainable forms of transport for moving people and freight.
  - ◆ To reduce significantly carbon emissions from transport.
  - ◆ To reduce the impact of the transport system on the local street scene and the natural, built and historic environment.
  - ◆ To promote sustainable travel and to make the public more aware of the consequences of their travel choices on climate, the environment and health.
- **Land Use and Regeneration**
  - ◆ To ensure developments in the SE Wales Valleys are accessible by sustainable transport
  - ◆ To make sustainable transport and travel planning an integral component of regeneration schemes

### ***Evolution without the Plan***

- 3.8.19 Without the LDP development may be less likely to identify any necessary highways capacity improvements to accommodate the cumulative impact of new development. The LDP can strategically plan for development in areas where the existing transport networks can accommodate growth, or where the necessary improvements can be more easily provided, and in locations which improve accessibility for local communities and thereby promote social inclusion. The LDP provides an opportunity to coordinate the delivery of new housing, employment and infrastructure which will be more effective in helping to improve accessibility and connectivity and reduce the need to travel. The LDP can also provide rural development that supports key services and facilities that contribute to improving accessibility and equality within the countryside. A key issue within the plan area

relates to the levels of out-commuting. The LDP can direct new strategic employment development to combat out-commuting and contribute towards the LTP Plan goals of minimising transport emissions and demand on the transport system, as well as promoting a modal shift towards active travel and quality public transport systems.

#### *Key Issues*

- Green infrastructure and Active Travel routes are not well connected through the urban grain / pattern.
- The A470, train line and the River Taf, all run North-South and constrain East-West movement and accessibility to bridges, underpasses and roundabouts in some parts of the County Borough.
- Orbital travel (between valleys) is difficult. There is an opportunity to link Merthyr and Aberdare via the Abernant Tunnel.
- Very low levels of active travel commuting for journeys less than 5km.
- Rights of Way connectivity requires improvement (links and loops).
- Net out-commuting to Cardiff.
- New central bus station proposed.
- Rail head at the Ffos-y-fran land reclamation site is still in operation.
- Congestion at 'hot spots' on the road network at peak times. An Air Quality Management Area (AQMA) is proposed at Twynnyroddyn Hill, with road traffic being the primary cause of for exceedances of the Air Quality Objectives.

### **3.9 Energy**

- 3.9.1 This topic explores current energy consumption across the plan area, as well as renewable energy capacity.
- 3.9.2 Prior to 2008, the amount of electricity generated in Wales remained relatively stable, with around 35,000GWh generated each year. However, in recent years the amount of electricity generated in Wales has been falling. The total amount of electricity generated in Wales has continued to fall since 2010, but much more gradually in each successive year, decreasing by 0.8% between 2012 and 2013. This downward trend is mainly due to the decline in electricity generated from gas.
- 3.9.3 The percentage of electricity generated in Wales from renewable sources has continued to increase since 2004, rising by 9% between 2012 and 2013 and reaching 10% in 2013. This is mainly due to an increase in wind generation. However, the Welsh average is lower than the UK average of 15% and the lowest of the UK countries.

- 3.9.4 Total Welsh energy consumption has been falling since 2005, though more so since 2007, which coincided with the economic downturn, the industry and commercial sector accounting for a large proportion of this decline. During 2013, domestic gas consumption per consumer fell across all local authorities in Wales whilst domestic electricity consumption per customer fell for only thirteen local authorities, with the remaining eight increasing. Although many of these increases were very small, they generally occurred in local authorities identified as having amongst the lowest deployment of renewable energy generation in Wales. The largest increases in average domestic electricity consumption per consumer were in Blaenau Gwent (1.7 per cent) and Merthyr Tydfil (1.4 per cent), although Blaenau Gwent continued to have the lowest consumption per consumer (3,300 kWh) amongst all local authorities. These two local authorities contain the fewest onshore wind and solar photovoltaic (PV) sites.
- 3.9.5 The Department of Energy and Climate Change (DECC) produced the following consumption figures for the MTCBC area in 2013:
- Coal – a total of 10.9 GWh (Gigawatt hours) predominantly through domestic use;
  - Manufactured fuels – a total of 0.6GWh, all through domestic use;
  - Petroleum – a total of 354.1GWh, predominantly from road transport;
  - Gas – a total of 499.6GWh predominantly through domestic use;
  - Electricity – a total of 214.5GWh, predominantly through industrial and commercial use and
  - Bio-energy – a total of 19.7GWh.
- 3.9.6 The statistics identify an average domestic consumption per household of 19.6MWh (Megawatt hours). The total consumption of all fuels in Merthyr Tydfil County Borough in 2013 was 1099.4GWh, which has been decreasing since 2006 (1392GWh). Average domestic energy consumption in Merthyr Tydfil (equivalent of 19.6 barrels of oil) is higher than the average for Wales (equivalent of 18.1 barrels of oil).
- 3.9.7 The UK Renewable Energy Strategy, published in 2009, demonstrated that the 2020 target of 15% renewable energy could be achieved and suggested that this would require 30% of electricity, 12% of heat and 10% transport to come from renewable sources. A number of renewable energy projects have been granted planning permission in the MTCBC area during the existing LDP period. These primarily comprise wind turbines, with a combined generating capacity of 2.5MW, a hydro turbine, with a generating capacity of 0.1MW and a solar farm with a capacity of 5MW.

#### ***Evolution without the Plan***

- 3.9.8 Existing planning guidance provides a framework for the delivery of renewable energy technology. However, the LDP can provide further support, particularly through the allocation of land for the siting of renewable energy developments and

associated policies which provide guidance and criteria for such development. Without the plan therefore, planning gains are less likely to be delivered in a timely and coordinated manner.

#### *Key Issues*

- Domestic consumption is the biggest contributor to local greenhouse gas emissions.
- Transport fuel consumption is also a significant contributor to local greenhouse gas emissions.
- There is opportunity for renewable energy within the plan area.

### **3.10 Climate Change**

- 3.10.1 This topic explores the current climate, the contributors to climate change and its predicted effects across the plan area. Information in this section is predominantly at a national scale, there is no detailed local report on the subject. Nevertheless the national implications are locally applicable.
- 3.10.2 The mean annual temperature at low altitudes in Wales varies from about 9.5°C to 11°C, with the higher values occurring around or near to the coasts. The mean annual temperature decreases by approximately 0.5°C for each 100 metres increase in height so that, for example, a location at 400 metres would have a mean annual temperature of about 7.5°C. On this basis, Merthyr Tydfil (at 186 metres) would have an annual mean temperature of about 8.5°C – 10°C (Met Office, 2016).
- 3.10.3 In Wales in winter, temperatures are influenced to a very large extent by those of the surface of the surrounding sea, which reach their lowest values in late February or early March. Around the coasts February is therefore normally the coldest month, but inland there is little to choose between January and February. The January mean daily minimum temperatures vary from just above 0°C in the higher parts of north and mid-Wales to 3 or 4°C around the coast. The lowest temperatures occur away from the moderating influence of the sea, on the floors of inland valleys into which cold air can drain. July is normally the warmest month, with mean daily maximum temperatures varying from about 17°C in the higher inland locations, to 18°C along the west coast and 21°C in the east of Powys and Monmouthshire. Maximum temperatures are usually in July or August. The highest temperatures usually occur furthest away from the cooling influence of the Atlantic.
- 3.10.4 Rainfall in Wales varies widely, with the highest average annual totals being recorded in the central upland spine from Snowdonia to the Brecon Beacons. Snowdonia is the wettest area with average annual totals exceeding 3000 mm,

comparable to those in the English Lake District or the western Highlands of Scotland. In contrast, places along the coast and, particularly, close to the border with England, are drier, receiving less than 1000 mm a year.

- 3.10.5 The ecological footprint of Wales (Stockholm Environment Institute and GHD, 2015) provides an assessment of the total environmental burden associated with Welsh consumption. The ecological footprint for Wales has been calculated at 3.28 global hectares per capita (gha/c). At current levels of consumption, 2.5 planet Earths would be required to provide sufficient resources and absorb waste. The Welsh Government has therefore set a goal to achieve 'One Planet Living' within the lifetime of a generation. This will require a reduction of the impacts of Welsh consumption by approximately two thirds.
- 3.10.6 The carbon footprint of Wales has been calculated at 11.1 tonnes of carbon dioxide equivalent per capita (t CO<sub>2</sub>e per capita). MTCBC, along with Blaenau Gwent and Caerphilly, has the lowest carbon footprint of local authorities in Wales (Department of Energy & Climate Change, 2015).
- 3.10.7 Department of Energy and Climate Change (DECC) data indicated that per capita CO<sub>2</sub> emission estimates for MTCBC were noticeably lower than the average for the UK and Wales, and generally decreased between 2005 and 2013. The data also indicates that annual amount of CO<sub>2</sub> emitted per person and per sector (Transport, Industrial and Commercial, and Domestic) in MTCBC also generally decreased over this period (Department of Energy & Climate Change, 2015).
- 3.10.8 DECC also produced the following emissions statistics for MTCBC for 2013:
- |                             |                        |
|-----------------------------|------------------------|
| ■ Transport –               | 89 kt CO <sub>2</sub>  |
| ■ Industry and Commercial – | 98 kt CO <sub>2</sub>  |
| ■ Domestic –                | 126 kt CO <sub>2</sub> |
- 3.10.9 Evidence therefore suggests that domestic fuel use is the biggest contributor to GHG emissions within MTCBC at approximately 41% of the total emissions. However, it is also important to note that industry and commercial use contributes approximately 32% and transport (predominantly road transport) contributes approximately 29% to the total GHG emissions in MTCBC (Welsh Government, 2015).
- 3.10.10 The potentially most significant risks for Wales from climate change appear to be:
- Increases in hot-weather related death and illness;
  - Changes in soil conditions, biodiversity and landscape due to warmer, drier summers;
  - Reductions in river flows and water availability during the summer, affecting water supplies and the natural environment;
  - Increases in flooding on the coast and inland, affecting people, property and infrastructure;

- Changes in coastal evolution including erosion and coastal squeeze, affecting beaches, intertidal areas and other coastal features;
- Changes in species including a decline in native species, changes in migration patterns and increases in alien and invasive species; and
- Increases in the risk of pests and diseases affecting agriculture and forestry. The risk to livestock is a particular concern.

3.10.11 The potentially most significant opportunities for Wales appear to be:

- Increases in grass yields, allowing a potential increase in livestock production;
- Increases in tourist numbers and a longer tourist season; and
- Reductions in cold-weather related illness and death.

#### ***Evolution without the Plan***

3.10.12 The LDP can provide further support in the long-term approach to climate change mitigation and adaption, particularly through setting aspirational energy efficiency targets for new development; the appropriate siting of new development; and the delivery of mitigation measures like new green infrastructure, sustainable drainage systems in new development and contributions to improved flood defence. Without the Plan therefore, development may be less ambitious in its energy performance, and planning gains are less likely to be delivered in a timely and coordinated manner.

#### ***Key Issues***

- Increases in hot-weather related death and illness and conversely reductions in cold-weather related illness and death.
- Changes in soil conditions, biodiversity and landscape due to warmer, drier summers.
- Changes in species including a decline in native species, changes in migration patterns and increases in alien and invasive species.
- Reductions in river flows and water availability during the summer, affecting water supplies and the natural environment.
- Increases in flooding, affecting people, property and infrastructure.
- Increases in the risk of pests and diseases affecting agriculture and forestry. The risk to livestock is a particular concern.
- Increases in grass yields, allowing a potential increase in livestock production.
- Increases in tourist numbers and a longer tourist season.

### **3.11 Biodiversity, Flora and Fauna**

3.13.1 Biodiversity or biological diversity is the variety of life on Earth. The MTBC area has a range of statutory and non-statutory sites designated for their biodiversity value.



This topic identifies these sites across the plan area as well as important habitats and species. It also seeks to promote ecological connectivity, encourage local people to use green-spaces and appreciate wildlife, and support sustainable development.

- 3.11.2 There are no Natura 2000 sites present in the MTBC's administrative area; however there are 10 sites situated within 15km of the area. Ongoing Habitat Regulations Assessment work has 'scoped-in' three of these European sites designated, namely Special Areas of Conservation (SACs) sites. These are listed in Figure below.

**Figure 3.21: Scoped in Natura 2000 sites within 15km of Merthyr Tydfil County Borough Council.**

Natura 2000 sites within 15km* of Merthyr Tydfil County Borough Council		
Special Areas of Conservation (SAC)	Also known as	Approximate Distance from MTCBC administrative boundary
Aberbargoed Grasslands		4.5km to the south.
Blaen Cynon		5km to the north.
Usk Bat Sites	Safleodd Ystlumod Wysg	9.65km.

\*NRW advises 15km as an appropriate distance for scoping purposes.

- 3.11.3 There are two statutory nationally designated sites, namely Cwm Taf Fechan Woodlands and Cwm Glo a Glyndyrys Sites of Special Scientific Interest (SSSIs). Cwm Taf Fechan Woodlands SSSI is situated in the Taf Fechan valley, situated approximately 2.5 km north of the centre of Merthyr Tydfil. It comprises Ancient broadleaved woodlands, calcareous grasslands, river and cliffs. Cwm Glo a Glyndyrys SSSI comprises four special features: species rich grassland - one of the largest remaining fragments in the region; marshy grassland - particularly important for a number of rare butterflies; lowland acid grassland – rare and regenerated on former mining spoil heaps and an outstanding assemblage of 40 species of grassland fungi -reliant on grassland habitats.
- 3.11.4 There is one statutory locally designated site namely Cwm Taff Fechan Local Nature Reserve (LNR) which comprises a 2.5 km stretch of dramatic Carboniferous limestone gorge cut by the River Taf Fechan with steep valley sides. It contains is a mosaic of deciduous woodland on the slopes which attracts a variety of birds and includes an area of grazed grassland, particularly rich in wild flowers and butterflies. The valley is one of the best recorded sites for bryophytes in the region. The area also incorporates much of the area notified as Cwm Taf Fechan Woodlands SSSI totalling an area of approximately 37.54ha.
- 3.11.5 There are also a number of non-statutory local designations including 59 Sites of Importance for Nature Conservation (SINCs) covering 4,264ha and three Private

Nature Reserves: Cilsanws Nature Reserve, Webber's Pond Nature Reserve and Pontygwaith Nature Reserve. Cilsanws Nature Reserve is owned by the Merthyr Tydfil & District Naturalists' Society and situated on the northern rim of the South Wales Coalfield, previously used for post war grazing, now covered in gorse and heathland plants and home to birds and insects. Webber's Pond Nature Reserve located within the Gethin Woodland adjacent to the A470, is also owned by the Society comprising pond, woodlands and a wide range of local wildlife and plant species. Pontygwaith Nature Reserve situated alongside the River Taff straddling the Taff and Trevithick Trails is owned by the Merthyr Tydfil Anglers Association. It has had many uses in the past including a small C16<sup>th</sup> forge.

3.11.6 The MTBC area contains a variety of habitats and species which are recognised under Section 40 of the Natural Environment and Rural Communities Act 2006 as of "principal importance for the purpose of conserving biodiversity." It also has a dense network and wide variety of quality habitats. Due to its rich geology and post industrial landscape there is a mixture of characteristic habitats. The Merthyr Tydfil Biodiversity Partnership (MTBAP) focuses their efforts on 10 habitats from the list of habitats of 'principle importance' in Wales. MTBC Priority Habitats in the area include:

1. 725 Ha of **Broadleaved Woodland** some of which is designated as Cwm Taf Fechan Woodlands SSSI;
2. 1603 Ha of semi-natural **Grassland** including acid, neutral and calcareous grasslands and Rhos Pasture which rely on regular grazing;
3. 582.5 Ha of **Heathland** characterised by the presence of heathers, whinbery and dwarf gorses with cross-leaved heath and purple-moor grass;
4. 135.65 Ha of **Wetland** which support a variety of invertebrates, amphibians and birds within bogs, fen, swamp, marsh, standing open water and ponds;
5. **Rivers and Streams** which support a wealth of key species including otter, kingfisher, dipper and salmon;
6. Approximately 1338 Ha of **Urban** area including developed areas, amenity grasslands, gardens, road-side verges and Brownfield sites. Urban areas support bird populations; roosting habitats for bats, are a haven for hedgehogs, slow worms, newts, frogs, toads and invertebrates;
7. **Linear features** that support a variety of plant and animal life are an important tool for maintaining and creating connectivity between habitats;
8. Approximately 85 Ha of **Inland Rock**, disused quarries for example have been colonised by specific plants including ferns, bryophytes and lichens and associated animals, invertebrates and birds as nesting sites;
9. **Coedcae (Fridd)** usually enclosed and found on steep valley sides with a mosaic of habitats types including heath, bracken, acid grassland, scrub and mineral workings, the results of old farming methods and an important connective link with other parts of Wales and
10. Approximately 153 Ha of **Mineral Spoil**, including coal tips, iron workings and reclamation sites. Due to the industrial heritage of Merthyr, MTBC has some of the best, most varied and dense examples of lichen/bryophyte-rich heaths, flower-rich vegetation and fungi e.g. waxcaps which inhabit Mineral Spoil.

3.11.7 MTBC is home to several species of ‘principle importance’ in Wales. These are recorded via the South East Wales Biodiversity Records Centre to which the Authority subscribes. This does rely on data submitted to the service. Other records held include ecological surveys submitted in support of planning applications. The Merthyr Tydfil Local Biodiversity Plan (MTBAP) priorities five European Protected Species since it is an offence to harm or disturb them or their breeding sites or place of rest whether intentionally or by accident, as follows:

1. **Bats** are continually monitored and their habitats are appropriately managed and new ones designated. Bat species include: Bechstein’s Bat; Brown long-eared Bat; Noctule Bat; Soprano Pipistrelle; Greater Horseshoe bat and Lesser Horseshoe Bat;
2. Although no **Dormice** have yet been recorded in Merthyr Tydfil, NRW are surveying Cwm Glo a Glyndyrys SSSI as a suitable habitat and there is some indirect evidence of their presence
3. MTBC supports two meta-populations of **Great Crested Newt** which were translocated to East and West Merthyr are continually monitored and their habitats appropriately managed;
4. There has recently been a marked recovery in **Otter** populations along the River Taf which are continually monitored and their habitats appropriately managed and maintained and
5. MTBC is host to 10 pairs of **Lapwing** which has suffered from significant decline in recent years. MTBC is a key site in the Heads of the Valleys Lapwing Conservation Strategy, which aims to safeguard one of the last remaining Lapwing strongholds in Wales. Currently this farmland bird favours reclaimed coal tips sites.

3.11.8 The MTBAP aims to address the loss of genetic diversity and integrity as a result of fragmentation and impacts of climate change. The Local Development Plan can require development to minimise habitat fragmentation and thereby maintain ecological connectivity vital to the movement of mobile species, such as Marsh Fritillary butterflies and Bats. Working with neighbouring authorities is also essential particularly with regard to Natura 2000 sites which function as part a network of sites. This could help to ensure that in changing climatic conditions, biodiversity can move around to maintain healthy populations.

3.11.9 The sustainable use and protection of the environment is a critical factor in sustainable development. Designating green spaces, education and raising awareness of the importance of biodiversity with users and landowners to encourage improvement can contribute to a sustainable economy and ensure a strong, health society.

#### ***Evolution without the Plan***

3.11.10 Development will still come forward without the Plan and will need to be in line with current national and local policies and guidance in relation to the protection of

biodiversity. However, the Local Development Plan gives the Council the opportunity to more effectively coordinate development and direct it towards those areas that are potentially less sensitive. It also provides an opportunity to consider and address potential strategic cumulative effects on biodiversity that may not be taken into account at a lower level of plan-making. Development could be directed to areas that avoid fragmentation in order to maintain or help to improve ecological connectivity, not only within MTBC but into the neighbouring authority areas.

*Key Issues*

- 3 Natura 2000 sites within 15km of the County Borough.
- National and local designated sites for nature conservation and geodiversity and the presence of a range of s42 habitats and species.
- Ecological corridors within Merthyr Tydfil and between Merthyr Tydfil and adjoining LAs.
- Fragmented green infrastructure within the urban area.
- Land management practices have varying impacts on the biodiversity present.
- Climate change will place increased pressure on biodiversity and ecosystems.
- Post-industrial land.

**3.12 Water: Resources, Quality and Flooding**

- 3.12.1 This topic explores all aspects of the water environment in Merthyr Tydfil County Borough, including the demand for and supply of water, waste water treatment, the quality of water bodies in the plan area, and flood risk.
- 3.12.2 The Merthyr Tydfil County Borough is a mix of rural and urban communities generally built on the steeply sloping hillsides or within the valley basins. The plan area has one major catchment which drains into the River Taf and is served by one water company – Dwr Cymru Welsh Water. The waste water treatment facility is at Cilfynydd in the adjoining authority RCT although it predominantly serves Merthyr Tydfil. Dwr Cymru Welsh Water is currently conducting research to pin point areas of surface water ingress to the Waste Water system. The County Borough is located within Welsh Water's South East Wales Conjunctive Use System (SEWCUS) water resource zone (WRZ) which is the largest of their zones and includes Cardiff, Newport and the remainder of the South Wales valleys).
- 3.12.3 Surface water from the upper reaches of the catchment drains into the Taf Fawr to the west and the Taf Fechan to the east. The confluence of the two rivers is at Cefn coed-y-cymmer and below that point the river is referred to as the Afon Taf. The

south eastern sector of the catchment drains into the Bargod Taf which joins the Afon Taf at Quakers Yard.

- 3.12.4 There are two main reservoirs (classified as artificial or heavily modified water bodies (Natural Resources Wales, 2016)) serving the County Borough, both located in the BBNP. The eastern half of the Llwyn Onn Reservoir lies on the Taf Fawr in the north west of the catchment and the Pontsticill Reservoir is fed by the Taf Fechan in the north east.
- 3.12.5 *The Dwr Cymru Welsh Water-Water Resources Management Plan* (Dwr Cymru Welsh Water, 2014) identifies that the SEWCUS WRZ retains a surplus of water overall but the last year of the planning period (2039/40), which experiences a drop into 0.5ML/d of deficit (less than 1% of the deployable output). This will be managed through the implementation of additional leakage detection activities. The plan estimates that £20m of resilience investment will be required during 2015-2020 to ensure Welsh Water are able and confident to maintain the quality and quantity of supply throughout the SEWCUS WRZ.
- 3.12.6 *The Merthyr Tydfil County Borough Council Local Flood Risk Management Strategy Strategic Environmental Assessment Report* (Merthyr Tydfil County Borough Council , 2012) advises that the area will need to be prepared for climate changes predicted for Wales as a consequence of past and current greenhouse gas emissions. In summary, the expected trend is for:
- A generally warmer, wetter climate; with
  - Less precipitation in summer and more in winter; and
  - An increase in the frequency and intensity of storm events.
- 3.12.7 *The Dwr Cymru Welsh Water - Water Resources Management Plan* describes the best and worst case scenarios of the effects of climate change on the deployable water output in Welsh Water's area. The overall picture is one of reduced yields i.e. less deployable water output.
- 3.12.8 NRW, the Competent Authority for implementing the Water Framework Directive (WFD) in Wales, has produced *Local Evidence Packs* (Natural Resources Wales , 2014) which classify estuaries, coastal waters, groundwater, lakes and rivers according to the WFD classification. The Local Evidence Pack indicates that the majority of water bodies in the County Borough have a moderate Ecological Status, with some being classified as poor. Both reservoirs in the County Borough, which are located within the boundary of BBNP Authority, have a moderate Lakes Ecological Status. The River Habitat Survey identifies two lengths of river as being near-natural (1), two are identified as predominantly unmodified (2), and one is classified as obviously modified (3). Five lengths of river are identified as having some or extensive tree cover, and two have Japanese Knotweed present. The Surface-water Chemical Status of the County Borough's water bodies is either good, or do not require assessment.

- 3.12.9 The Groundwater Chemical Status for the majority of the County Borough (and also that covered by the LDP area), is classified as poor. The remainder of the County Borough, which lies within BBNP, is classified as good. The Groundwater Quantitative Status, for the whole of the County Borough is classified as good. 67% of water bodies were classified as having a Groundwater Overall Status of good, and 33% were classified as poor.
- 3.12.10 A small part of the County Borough (in the north-east) is classified as being a Groundwater Source Protection Zones (SPZ). Specifically, it is classified as 'Zone 1 – Inner Protection Zone', which is defined as a 50 day travel time from any point below the water table to the source. The whole of the County Borough is classified as a Protected Area in terms of its Groundwater bodies, and all Surfacewater bodies are within a Protected Area.
- 3.12.11 The Evidence Pack advises that the main reasons for failure that LPAs in general can and should address are:
- Artificial barriers to fish migration (e.g. weirs);
  - Abandoned mines & contaminated land;
  - Sewage discharges;
  - Flood protection & land drainage and
  - Urban & transport development.

As well as the above listed factors, MTCBC also experiences issues resulting from agricultural pollution, impoundments and degraded habitats.

- 3.12.12 An aquifer is a sub-surface layer or layers of rock or other geological strata of sufficient porosity and permeability to allow either a significant flow of groundwater or the abstraction of significant quantities of groundwater. The majority of the County Borough is designated as having a Bedrock Aquifer Typology of Secondary A (permeable layers capable of supporting water supplies at a local rather than strategic scale, and in some cases forming an important source of base flow to rivers), with some Principal (layers of rock or drift deposits that usually provide a high level of water storage and may support water supply and/or river base flow on a strategic scale). The main Superficial Aquifer Typology is Unproductive (low permeability and negligible significance for river flow base), with some Secondary A (capable of supporting base flow to rivers) mainly along the river/ tributary alignments with two lakes (reservoirs).
- 3.12.13 Flooding is the most frequent type of 'natural disaster' affecting home and businesses often disrupting the normal function of whole communities and can have a significant effect on finances as well as mental health and well-being. Many communities in the County Borough Area are at high risk from flooding including Merthyr Tydfil town centre, Troedyrhiw and Merthyr Vale. (Natural Resources Wales, 2016). NRW Flood Risks Map indicate that areas close to the River Taf, are within Flood Zone 2 (best estimate of the areas of land between Zone 3 and the extent of the flood from rivers or the sea with a 1000 to 1 chance of flooding in any

year. It includes those areas defined in flood zone 3). The map also shows that MTCBC has some flood defences, located in the south of the County Borough.

- 3.12.14 Additionally, many areas, again close to the River Taf, are within the WG Development Advice Map Flood Zone C2 – areas without significant flood defence infrastructure; some areas are within Flood Zone C1 – developed areas served by significant infrastructure, including flood defences and a few areas lie within Flood Zone B – areas known to have flooded in the past. The Evidence pack also indicates that 2193 properties are located in a Flood Zone in MTCBC. These two sources (NRW Flood Risks Map and WG Development Advice Map) are due to be combined in 2017.
- 3.12.15 The MTCBC Local Flood Risk Management Strategy identifies the Key Flood Risk Indicators for the MTCBC Flood Risk Area of 58 km<sup>2</sup>. These have been calculated as:
- Human health consequences – Number of people (2.23 multiplier) 7,923
  - Other human health consequences – Number of critical services flooded 26
  - Economic consequences – Number of non-residential properties flooded 818
- 3.12.16 Areas designated for the abstraction of water for human consumption are managed through Catchment Abstraction Management Strategies (CAMS). MTCBC had 9 sites with Active Abstraction Licenses, but has not yet been assessed under the CAMS process. This work is on-going.
- 3.12.17 NRW has a series of Salmon Action Plans (SAPS), based on river catchments, setting out what needs to be done to support and restore salmon populations. The majority of MTBC is classified as at risk according to the Conservation Limit Compliance 2012, and predictions to 2017.

#### ***Evolution without the Plan***

- 3.12.18 Development would come forward without the Plan and will need to be in line with current national and local policies and guidance in relation to the protection of water resources and quality; incorporation of efficiency measures; management of surface water run-off and avoidance of flood risk areas. However, the LDP provides the local authority the opportunity to more effectively co-ordinate development and direct it towards those areas that are potentially less sensitive and have lower risk of flooding. It also provides an opportunity for the Council to set more aspirational requirements for future development in terms of water efficiency standards and the management of surface water run-off.

### *Key Issues*

- Climate change will place increased pressure on water resources, in particular in the summer months.
- The chemical status of Water is deteriorating in the Nant Morlais.
- Improving and/or preventing the decline of the quality of groundwater and surface-water and water bodies.
- Parts of the Town Centre are identified as being at risk from flooding.

### ***Air Quality***

- 3.13.1 This topic explores the existing baseline air quality within the plan area, and the contributors to poor air quality which has a direct impact on peoples' life expectancy and enjoyment of the outdoors.
- 3.13.2 Merthyr Tydfil is the main settlement covered by MTCBC and Pentrebach and Dowlais are the main industrialised areas. The major road and rail links are discussed in paragraphs 3.7.2 -3.7.4. Historically Merthyr Tydfil has played a large part in the industrial activity of South Wales, with steel works, iron works and coal mining operations. This however, has declined dramatically over the last 50 years or so and today there are only a few industrial processes within the County Borough which require permits for their operation. With the exception of a major coal extraction operation and the three Part A1 processes regulated by Natural Resources Wales (NRW) these are mainly small Part B processes such as vehicle refinishers and wood processors.
- 3.13.3 Although there are no longer any significant industrial sources in the County Borough, traffic pollution has been increasing. Traffic flows on the on the Twynyrodyn Road link have been monitored for a number of years and have shown a consistent rise over the monitoring period.
- 3.13.4 The 2015 Updating and Screening Assessment for (USA) (Merthyr Tydfil County Borough Council, 2015) fulfils the requirements of the Local Air Quality Management (LAQM) process as set out in Part IV of the Environment Act (1995), the Air Quality Strategy for England, Scotland, Wales and Northern Ireland 2007 and the relevant Policy and Technical Guidance documents.
- 3.13.5 The LAQM process places an obligation on all local authorities to regularly review and assess air quality in their areas, and to determine whether or not the air quality objectives are likely to be achieved. Where exceedences are considered likely, the local authority must then declare an Air Quality Management Area (AQMA) and prepare an Air Quality Action Plan (AQAP) setting out the measures it intends to put in place in pursuit of the objectives.



- 3.13.6 Road traffic is very closely linked to air quality, and concentrations of pollutants are particularly high where the road network is congested. MTCBC has 24 Non-Automatic Monitoring Sites measuring Nitrogen Dioxide (NO<sub>2</sub>), relating mainly to vehicle exhaust discharges, through diffusion tubes. It also has One Automatic Monitoring Site measuring Particulate matter (PM<sub>10</sub> and PM<sub>2.5</sub>), in relation to the opencast coal extraction site at Ffos-y-Fran. Sulphur dioxide, benzene and other pollutants are not monitored within the County Borough.
- 3.13.7 The USA report confirmed that there were no new/newly identified road traffic (or other transport), industrial, commercial, domestic, fugitive or uncontrolled sources of air pollution, within the County Borough, or if sources had been identified, they had been adequately considered in previous reviews and assessments or did not require a detailed assessment.
- 3.13.8 Throughout the majority of the County Borough air quality is within the Air Quality Objectives (AQOs). No annual mean NO<sub>2</sub> concentrations exceeded 60 mg/m<sup>3</sup> so that the 1-hour mean objective is unlikely to be exceeded. Particle Matter PM<sub>10</sub> and PM 2.5 concentrations are significantly less than the air quality objective for 2020.
- 3.13.9 However, although in MTCBC air quality is generally within AQOs the council is in the process of declaring an Air Quality Management Area (AQMA) and producing an Air Quality Management Plan (AQMP) for Twynnyroddyn Hill, relating to a breach of an AQO for NO<sub>2</sub>. The action plan will recommend traffic management solutions to moderate traffic flow on Twynnyroddyn Road and encourage the use of alternative routes to and from the town centre. Modelling will be used to predict the effects of traffic management prior to it being implemented.
- 3.13.10 Planning permission has been granted to develop a new bus station at Swan Street within Merthyr Tydfil Town Centre. The developer commissioned an air quality assessment, which indicated that although it will result in increased NO<sub>2</sub>, the effects are unlikely to result in a breach of the AQOs. This conclusion was regarded cautiously as the model was validated using a limited amount of monitoring data. On this basis a Service Level Agreement (SLA) has been put in place so that diffusion tubes will be used to monitor air quality at sensitive locations close to the bus station. This will include residential premises in relation to the annual average and pedestrian routes from the bus station to the shopping areas for any indication that the hourly average has been exceeded.

#### ***Evolution without the Plan***

- 3.13.11 Without the Plan there is likely to be a less coordinated approach to the delivery of new housing, employment and infrastructure in the County Borough. This could exacerbate congestion issues on the highway network and potentially affect air quality (including the proposed AQMA). The LDP provides an opportunity to consider the cumulative effect of new development on the existing road network and

determine what additional infrastructure and wider mitigation such as green infrastructure is necessary to minimise impacts. New housing, employment and infrastructure can be delivered alongside improvements to public transport and active travel routes in areas that will help to reduce the need to travel and potentially help to address an existing area of congestion, such as within the proposed AQMA.

#### ***Key Issues***

- 1AQMA proposed for exceedances of Nitrogen Dioxide in Twynyrodyn Hill caused by Traffic.
- A new bus station has received planning permission.
- East Merthyr Land reclamation phase 3 (Ffos-y-fran) is ongoing.

### **3.14 Noise**

- 3.14.1 This topic explores the acoustic environment within the plan area, and the contributors to noise pollution, which affects people primarily through sleep disturbance and annoyance and secondarily through increased hypertension-related health conditions..
- 3.14.2 The road and rail systems in MTCBC are described in paragraphs 3.8.2 -3.8.4 above. The A roads, B roads and railway line within the County Borough pass through, or are located in close proximity to, the majority of its residential areas.
- 3.14.3 Technical Advice Note (TAN) 11: Noise (Welsh Government, 1997) provides advice on how the planning system can be used to minimise the adverse impact of noise without placing unreasonable restrictions on development or adding unduly to the costs and administrative burdens of business. It outlines some of the main considerations which LPA's should take into account in drawing-up development plan policies and when determining planning applications for development which will either generate noise or be exposed to existing noise sources. Local authorities should adopt a corporate approach and ensure close co-operation between planning and environmental health departments when considering noise and noise generating developments.
- 3.14.4 Noise Exposure Categories (NECs) have been derived to assist LPAs in their consideration of planning applications for residential development near transport related noise sources. A recommended range of noise levels is given for each of the NECs for dwellings exposed to noise from road, rail, air and mixed sources. However, in some cases it may be appropriate for LPAs to determine the range of noise levels they wish to attribute to the various NECs. Where there is a clear need for new residential development in an already noisy area some or all NECs might be

increased by up to 3 dB(A) above the recommended levels. In other cases, a reduction of up to 3 dB(A) may be justified.

- 3.14.5 LPAs must ensure that noise generating development does not cause an unacceptable degree of disturbance. Noise characteristics and levels can vary substantially according to their source and the type of activity involved.
- 3.14.6 Strategic noise maps were prepared in 2012 (Welsh Government, 2012) as part of *A noise action plan for Wales 2013–2018* (Welsh Government, 2013) to satisfy the Environmental Noise (Wales) Regulations 2006. They relate to: agglomerations (large urban areas with populations of more than 100,000); major roads (those with more than three million vehicle passages per year); and major railways (those with more than 30,000 train passages per year).
- 3.14.7 The noise action plan for Wales includes within it the environmental noise action plans required by Noise Regulations, together with information on Wales-wide policies relating to those forms of noise not covered by the Regulations, such as neighbourhood noise. The plan advises that noise pollution can have impacts on human health and well-being, the economy, wildlife and tranquillity.
- 3.14.8 The noise action plan designates urban quiet areas in three agglomeration areas in Wales: the Cardiff and Penarth agglomeration; the Newport agglomeration; and the Swansea and Neath Port Talbot agglomeration. MTCBC is classed as ‘the rest of Wales’, so no roads or railway lines in the MTCBC plan area are currently included on the Welsh Noise Map and no quiet areas have been designated. However, the planned electrification of the railways is likely to reduce noise levels on Merthyr Branch railway lines and the Noise Maps currently indicate that the primary source of noise pollution within MTCBC is from the classified roads within the County Borough.
- 3.14.9 The Welsh Government made monies available to local authorities in 2012-14 under a new grant scheme for projects to improve air quality, environmental noise and the provision of tranquil urban green space, focusing in particular on benefits to poorer communities. MTCBC took advantage of this scheme in its first year to obtain funding for traffic calming measures on Twynyrodyn Road to reduce both air pollution and noise levels experienced by members of the public.
- 3.14.10 In response to a request from the Department of Energy and Climate Change (DECC), the Institute of Acoustics (IOA) set up a noise working group (IOA-NWG) to take forward the recommendations of a report on ‘Analysis of How Noise Impacts are considered in the Determination of Wind Farm Planning Applications’ (2011). A good practice guide to the application of ETSU-R-97 for the assessment and rating of wind turbine noise (2013) was produced to report good practice in the application of the ETSU-R-97 methodology Noise Assessment Procedure.
- 3.14.11 The main purpose of the Noise Assessment Procedure is to set out the noise data required, and the subsequent analysis needed to allow a decision maker to make

an informed decision to assess compliance with ETSU-R-97. It presents current good practice in the application of the ETSU-R-97 assessment methodology for all wind turbine developments above 50 kW, reflecting the original principles within ETSU-R-97, and the results of research carried out and experience gained since ETSU-R-97 was published. The noise limits in ETSU-R-97 have not been examined as these are a matter for Government. Smaller developments such as single turbines warrant a simplified procedure (either based on ETSU-R-97 or other method agreed with the LPA), commensurate with the size and impact of the project.

### ***Evolution without the Plan***

- 3.14.12 Without the Plan there is likely to be a less coordinated approach to the delivery of new housing, employment and infrastructure in MTCBC. This could create or exacerbate noise pollution issues and result in negative impacts on human health and well-being, the economy, wildlife and tranquillity. The LDP provides an opportunity to consider the cumulative effect of new development on the acoustic environment and determine what measures are necessary to mitigate the impacts of noise pollution. New housing, employment and infrastructure can be delivered in the appropriate locations, alongside improvements to existing infrastructure and the introduction of mitigating measures.

#### ***Key Issues***

- The Noise maps indicate that the existing primary source of noise pollution within MTCBC is from the classified roads within the County Borough.

### **3.15 Minerals, land and soil.**

- 3.15.1 This topic identifies the mineral resources within the plan area and any planned extraction.
- 3.15.2 The underlying geology that has influenced the landscape of Merthyr Tydfil through both natural processes and industrial exploitation also yields economic minerals that supply the energy and aggregate markets. The major resources within the County Borough are coal, limestone and sandstone; however, superficial sand and gravel resources are known to exist even though there is no recent history of their commercial exploitation.
- 3.15.3 The County Borough's limestone resource forms part of the northern outcrop (to the north of the South Wales coalfield) of the main sequence of carboniferous limestone in South Wales. This northern outcrop lies to the north of the main Merthyr Tydfil settlement, straddling the boundary with the BBNP. Vaynor Quarry, which is partly located within the National Park, is the only permitted limestone

quarry within the County Borough. The quarry has substantial limestone reserves with an end date to quarrying in 2097. The quarry is, however, currently inactive while the owner focuses their operation on a neighbouring limestone quarry at Penderyn, Aberdare.

- 3.15.4 The pennant sandstone resource, which can be suitable for High Specification Aggregate (HSA) uses, such as motorway road surfacing, outcrops over much of the higher land in the southern half of the County Borough. Other sandstone resources, including areas of quartzitic sandstone, which can be used for aggregate and specialised industrial uses, are also dispersed throughout the northern half of the County Borough and are frequently found within and above the coal measures. Gelligaer quarry is the only active sandstone (HSA) quarry within the County Borough and has a permitted reserve of 18.5 million tonnes with an end date to quarrying in 2076.
- 3.15.5 The extensive coal field of South Wales underlies the County Borough and considerable primary and secondary coal resources are known to exist. The sequence of coal measures dips to the south-east at shallow angles and many of the productive seams are exposed or occur close to the surface, particularly in the northern half of County Borough. These seams have been exploited extensively in the last 200 years, although present day activity is limited to one coal mining operation at Ffos-y-fran. This land reclamation scheme involves the extraction of approximately 11 million tonnes of coal before the site is fully restored by 2025. The coal is presently dispatched to Port Talbot and Aberthaw power station by rail via the adjacent Cwmbargoed Disposal Point.
- 3.15.6 Minerals Technical Advice Note 1: Aggregates (2004) (MTAN 1) requires the preparation of Regional Technical Statements (RTS) for the areas covered by both the North and South Wales Regional Aggregates Working Parties (RAWPs). The RTS 1st Review document (August 2014), which has been endorsed by all local authorities and the Welsh Government, provides the strategy for the future supply of construction aggregates within the North and South Wales regions, taking account of the latest available information regarding the balance of supply and demand, and the current notions of sustainability.
- 3.15.7 The RTS 1st Review provides recommendations to each mineral planning authority regarding the quantities of aggregate which need to be supplied from their area (apportionments) and the total tonnage of any new allocations which may need to be made in their LDP to ensure that adequate provision is maintained throughout the relevant plan period. In terms of joint apportionment<sup>1</sup> for the future provision of land-won aggregates in Merthyr Tydfil and BBNP, the annualised amount of crushed rock is 0.82 million tonnes per annum. This equates to 20.5 million tonnes of crushed rock over the 25 year period (2011-2036) covered by the RTS 1st Review. A comparison with the joint existing land bank of 94 million tonnes for

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<sup>1</sup> Merthyr Tydfil and Brecon Beacons National Park have been joined together for commercial confidentiality reasons.

crushed rock indicates that there is a surplus of existing permitted crushed rock reserves, and as such, no further allocations for crushed rock are required to be identified within the replacement Merthyr Tydfil LDP as the land bank provides for more than 20 years of aggregates extraction. In addition, there is no apportionment for sand and gravel in South East Wales, due to the region's reliance on marine-dredged aggregates from the Bristol Channel and the Severn Estuary.

- 3.15.8 Further recommendations within the RTS 1st Review include: encouraging the use of construction, demolition and excavation waste as an alternative to primary land-won aggregates; safeguarding resources of both crushed rock aggregates and land-based sand and gravel; and safeguarding existing railheads in order to provide a full range of sustainable transport options.
- 3.15.9 The Borough's industrial history has led to there remaining very little undisturbed land. There is no 'best and most versatile' agricultural land. Contaminated land is prevalent in the Borough.

#### ***Evolution without the Plan***

- 3.15.10 Whilst the strategic direction for the ongoing management and future development of minerals are provided through collaborative working arrangements at a regional level, there is no guiding framework at a local level without an LDP. An LDP is therefore essential to maintaining a minimum 10 year land bank of permitted aggregate reserves which contributes to regional demand.
- 3.15.11 While national policy provides a degree of protection to human health and the environment, LDPs can identify the most appropriate locations for new mineral developments that have the least adverse impact on locally sensitive receptors. Conversely, LDPs can steer new sensitive development, such as schools and housing, away from existing mineral sites in order to ensure that there are no conflicts in land use terms that could lead to the curtailment of existing mineral operations.

#### ***Key Issues***

- There is no 'best and most versatile' agricultural land, present within the County Borough. There is very little soil which may be used for growing.
- Existing permitted reserves.
- Mineral resources worthy of safeguarding have been identified by the BGS.
- A large amount of previously developed and contaminated land.
- A significant land reclamation scheme is underway in the County Borough and one is proposed in a neighbouring areas.
- Encouraging the transportation of raw materials by rail.

### **3.16 Waste**

This topic identifies the existing waste facilities and waste statistics within the County Borough.

- 3.16.1 In total, 30,170 tonnes of municipal waste was generated in Merthyr Tydfil in 2014/15, with 15,448 tonnes reused, recycled or composted (51.2%); 2,690 tonnes incinerated with energy recovery (8.9%), and 11,115 tonnes land-filled (36.8%). More recent data indicates that 62% of Merthyr Tydfil's municipal waste was reused, recycled or composted in 2015/16, which represents an 11% increase over the year, exceeding the national target of 58% and taking it above the Welsh average of 60%. Further improvements are, however, necessary in order to meet the 70% target set for 2024/25.
- 3.16.10 The Council operates a network of 3 bring sites, 2 household waste and recycling centres and a County Borough wide kerbside collections service inclusive of household and trade residual waste and recycling. Food waste and dry recyclables are transferred to a new combined depot and transfer facility at Merthyr Industrial Estate where they are bulked for onward transportation. In partnership with Rhondda Cynon Taf County Borough Council (Tomorrow's Valley), contracts for the treatment of food and residual waste have been secured at the Biogen anaerobic digestion treatment facility at Bryn Pica, Aberdare and the Viridor energy recovery facility at Trident Park, Cardiff respectively. Green waste is currently composted in open windrows at Bryn Compost, Gelligaer. A number of commercial waste management facilities also operate within the County Borough, including Trecatti landfill site which serves the wider region.
- 3.16.11 The need for further waste facilities will be informed by the short and long term waste management goals set out in 'Towards Zero Waste – One Wales: One Planet' (June 2010) – the overarching waste strategy document for Wales – and the Collections, Infrastructure and Market Sector Plan (July 2012). It is difficult to accurately predict future needs for the disposal of waste and recovery of mixed municipal waste, and accordingly, annual monitoring at a regional level is necessary in order to identify whether:
- sufficient landfill capacity is being maintained;
  - sufficient treatment capacity for the recovery of mixed municipal waste is coming forward;
  - the spatial pattern of provision is appropriate to fulfil identified needs; and
  - any further action is needed by LPAs to address unforeseen issues.
- 3.16.12 The findings will be presented through an annual Waste Planning Monitoring Report and any recommendations for the further provision of waste facilities will need to be addressed through LDPs.

### ***Evolution without the Plan***

- 3.16.13 Whilst the strategic direction for the ongoing management and future development of waste facilities are provided through collaborative working arrangements at a regional level, there is no guiding framework at a local level without an LDP. An LDP is therefore essential to providing sufficient land that facilitates the delivery of an adequate and integrated network of waste facilities.
- 3.16.14 While national policy provides a degree of protection to human health and the environment, LDPs can identify the most appropriate locations for new waste developments that have the least adverse impact on locally sensitive receptors. Conversely, LDPs can steer new sensitive development, such as schools and housing, away from existing waste sites in order to ensure that there are no conflicts in land use terms that could lead to the curtailment of existing waste operations. The LDP can also ensure that new developments, such as housing and employment, maximise opportunities to recycle demolition and construction waste on site; incorporate facilities and space for the collection, composting and recycling of waste materials in to their design; and consider waste reduction efforts at the design, construction and demolition stage.

#### ***Key Issues***

- The need to facilitate the provision of an adequate and integrated network of waste facilities.

### **13.17 Cultural Heritage (incl. Welsh Language) & Historic Environment**

- 13.17.1 This topic explores existing designated and non-designated heritage assets within the plan, including potential heritage sites and structures, and 'Buildings at Risk'.
- 13.17.2 It is identified that within MTCBC area there are:
- 41 Scheduled Ancient Monuments<sup>2</sup>
  - 3 Registered Parks and Gardens (Cyfarthfa Park and Aberfan Cemetery Grade II\*, Cefn Coed Cemetery Grade II)
  - 234 Listed Buildings (1 Grade I, 12 Grade II\*, 221 Grade II).
  - 8 Conservation Areas
  - 2 Registered Historic Landscapes
  - Several hundred non-designated archaeological sites
- 13.17.3 The Buildings at Risk Register (Cadw, 2011 (revised 2016)) identifies at risk heritage based on condition. The borough has three buildings at *very bad*, and six at *poor*<sup>3</sup>.

<sup>2</sup> This total includes cross boundary assets within MTCBC and Brecon Beacons National Park

<sup>3</sup> Historic England Heritage at Risk categorisation system used



- Timber Aqueduct over former Taff Bargoed Railway, Grade II. Priority Category A (immediate risk of further deterioration or loss of fabric; no solution agreed).
- Former YMCA, Grade II. Priority Category B (further rapid deterioration or loss of fabric; solution agreed but not yet implemented).
- Blaen Canaid Farmhouse, Grade II. Priority Category A (immediate risk of further deterioration or loss of fabric; no solution agreed).
- Former Miner's Hall, Grade II. Priority Category B (further rapid deterioration or loss of fabric; solution agreed but not yet implemented).
- Outbuilding at Hafod-tanglwys-isaf, Grade II. Priority Category A (immediate risk of further deterioration or loss of fabric; no solution agreed).
- Thespian House, Grade II. Priority Category A (immediate risk of further deterioration or loss of fabric; no solution agreed).
- Industrial building at former Ivor Works, Grade II. Priority Category A (immediate risk of further deterioration or loss of fabric; no solution agreed).
- Old Cefn Bridge, Grade II\*. Priority Category A (immediate risk of further deterioration or loss of fabric; no solution agreed).
- Theatre Royal, Grade II. Priority Category A (immediate risk of further deterioration or loss of fabric; no solution agreed).

13.17.4 The Buildings at Risk survey identified that Merthyr's industrial transport heritage is most at risk of decay and that the Town Community Ward has the highest percentage of heritage assets at risk of further decay and deterioration.

13.17.5 Merthyr Tydfil has a rich and varied heritage which has left a precious but fragile inheritance of historic landscapes, settlements, sites and buildings. This historical fabric needs careful management and protection, exemplary conservation, raising awareness and community involvement. An example of this includes restoration of the Old Town Hall, a late Victorian Grade II\* listed building, developed as an arts and creative centre in the heart of the Town Centre, now known as the Redhouse.

13.17.6 In Merthyr Tydfil at 98.9% of households have English or Welsh as their main language spoken. Other languages recorded on the Census (2011) included Polish: 1.7% of households in Merthyr Tydfil; Portuguese: 0.5% of households in Merthyr Tydfil and Arabic (0.1% in Merthyr Tydfil). These figures do not include the households that might have English or Welsh as their main language, but often speak other languages to relatives and friends.

13.17.7 The last Census in 2011 recorded that 8.9% of people in Merthyr Tydfil were able to speak Welsh. There has been a positive trend in younger people being able to speak Welsh. More children aged 3-4 years old in 2011 were able to speak Welsh in Merthyr Tydfil than 10 years previously and the same was true for adults aged between 20-44 years old.

***Evolution without the Plan:***

- 13.17.8 Without a structured plan designated heritage assets would still be protected through National and Regional policy; however non-designated assets would be threatened. Non-designated assets are highly valuable and make a positive contribution to local character and distinctiveness, as well as to identity. These non-designated assets; settings, landscapes, structures and buildings would be more vulnerable to the impacts of development. Importantly the LDP and SA can consider the cumulative effects of proposed development on designated and non-designated heritage assets and their setting. The LDP can implement the mechanism to enhance protection for non-designated assets, settings and features that contribute to the historic environment. It can also secure enhancements for the historic environment, a robust plan with attached SPGs can aid grant applications and future regeneration projects. A LDP can not only enhance existing development but also can carefully plan for responsive and responsible development in the most appropriate locations, sympathetic to existing heritage assets.
- 13.17.9 The growth in Welsh speakers is positive, but this needs to be maintained to contribute towards the goal of *"A Wales of vibrant culture and thriving Welsh language"* and work towards the national target of one million Welsh speakers by 2050 across Wales. This equates to around a third of the current population. Without the plan, opportunities could be missed to weave the language into everyday life to increase people's confidence and opportunity to speak it; e.g. through play, leisure opportunities, interaction with businesses and within the workplace.

***Key issues:***

- Merthyr Tydfil contains a rich defining era of heritage assets, which require sensitive management and protection.
- Merthyr Tydfil has the second highest proportion of population (of all LA's in Wales) who are unable to communicate in Welsh (after Blaenau Gwent) at 91.36% (2011 Census). Across Wales the ambition is for approximately a third of the population to use Welsh by 2050.

**3.18 Landscape and Townscape (incl. Built Environment).**

- 3.18.1 This topic explores designated and non-designated landscapes, their special qualities and overall character.
- 3.18.2 The MTCB area is an upland glaciated landscape with a topography characteristic of the South Wales Valleys. The steeply sloping wooded valley sides of the Taf Fechan

and Taf Fawr with their high ridges and moorland vegetation define the landscape character of the area and provide an environmental and ecological context for the settlements of the County Borough. A fifth of the MTCB area falls within the BBNP, but these areas are excluded from the LDP administrative area.

- 3.18.3 Human history in the County Borough area has extended over many centuries and particularly during the industrial revolution which served to produce a rural and urban landscape comprising a mixture of urban, semi-urban and rural communities living in a rich and varied environment containing exceptional wildlife habitats, historic landscapes and archaeological features.
- 3.18.4 MTCB has 2 registered Landscapes of Outstanding Historic Interest. The main settlement of Merthyr Tydfil; probably the largest iron-making town in the world in the early to mid-19th century which overall retains its industrial landscape character as the most significant Welsh town of the Industrial Revolution and Gelligaer Common; an increasingly rare survival of an area of high upland moor, rich in a diverse archaeological resource which displays a remarkable continuity of occupation. Cadw has identified three Registered Park and Gardens - Cyfarthfa Castle and associated Registered Park and Garden, Cefn Coed Cemetery and Aberfan Cemetery - Garden of Remembrance and Former Tip and Slide area. Cadw has also published an Urban Character Study which identifies 9 conjoining areas within Merthyr Tydfil. These are: Town Centre: High Street and Pontmorlais, Thomastown and Penyard, Twynyrodyn, South of the Town Centre, Cyfarthfa, Williamstown, Penydarren, Georgetown and Ynysfach, West Merthyr.
- 3.18.5 There are 79 Historic Landscape Character Areas (HLCA) defined by the Glamorgan-Gwent Archaeological Trust (Glamorgan-Gwent Archaeological Trust) in the MTCBC area due to its transformation from a modest village in the 1750s to the largest town in Wales by 1801. Despite extensive recent land reclamation and the sanitisation of the surrounding waste tips, overall Merthyr still retains its 18th and 19th Century internationally renowned industrial landscape character.
- 3.18.6 LANDMAP is an all-Wales landscape resource where landscape characteristics, qualities and influences on the landscape are recorded and evaluated. It includes 5, nationally consistent, quality assured spatial datasets comprising: Geological Landscape (GL); Landscape Habitats (LH); Visual and Sensory (VS); Historic Landscape (HL) and Cultural Landscape (CL). It maps and classifies landscapes from the unique perspective of each dataset; describes their key characteristics, qualities and components; evaluates their importance from a national to local scale; recommends locally appropriate management guidelines and identifies significant landscape change through monitoring of the baseline resource. Each aspect layer has a single evaluation score calibrated from a local to an international scale of importance as summarised below:

**Figure 3.22: LANDMAP Overall Evaluated Score**

Overall evaluation score	Definition of importance to the LANDMAP layer
Outstanding	International or national
High	Regional or county
Moderate	Local
Low	Little or no importance

- **Geological Landscape:** Within the MTCB area there are 35 unique Geological Landscape Aspect Areas comprising 2 upland Karst areas, 29 areas of mountain and upland valley and 4 areas of tectonically controlled topography. 8 of these areas are classed as Outstanding, 11 as High, 15 as moderate and 2 as low.
- **Landscape Habitats:** Within the MTCB area there are 38 unique Landscape Habitat Aspect Areas, comprising 18 grassland and marsh areas, 8 woodland and scrub areas, 4 heathland areas, 2 areas of open water, 5 mosaic areas and 1 built up area. 1 of these areas is classed as Outstanding, 21 as High, 15 as moderate and 1 as low.
- **Visual and Sensory:** Within the MTCB area there are 51 unique Visual and Sensory Aspect Areas, comprising 14 areas of built or un-built development, 34 areas of upland and 3 areas of inland water. 4 of these areas are classed as Outstanding, 9 as High, 20 as moderate and 16 as low.
- **Historic Landscape:** Within the MTCB area there are 44 unique Historic Landscape Aspect Areas, comprising 16 areas of built environment and 28 areas of rural environment. 4 of these areas are classed as Outstanding, 9 as High, 10 as moderate and 1 as low.
- **Cultural Landscape:** Within the MTCB area there are 37 unique Cultural Landscape Aspect Areas, comprising 2 areas associated with customs, 12 influenced by infrastructure, 4 associated with institutions, 1 associated with the media, 2 associated with places, 6 with rural influences and 10 with urban influences. 18 of these areas are classed as Outstanding, 13 as High and 6 as moderate.

13.8.7 *The Heads of the Valleys - Smaller Scale Wind Turbine Development - Landscape Sensitivity and Capacity Study Final Report* (LLP, 2015) grouped the MTCB area into 8 Landscape Units as follows:

- **Cynon Taff Ridge:** Upland wooded landscape on the ridge between the Taff and Cynon valleys comprising marginal upland that incorporates mosaic and wooded upland landscapes.
- **Merthyr Tydfil West Valley Side:** The east and west facing valley sides of the Taff provides the setting for Merthyr Tydfil Area. It includes extensive areas of extraction and landfill that have resulted in man-made landform on the

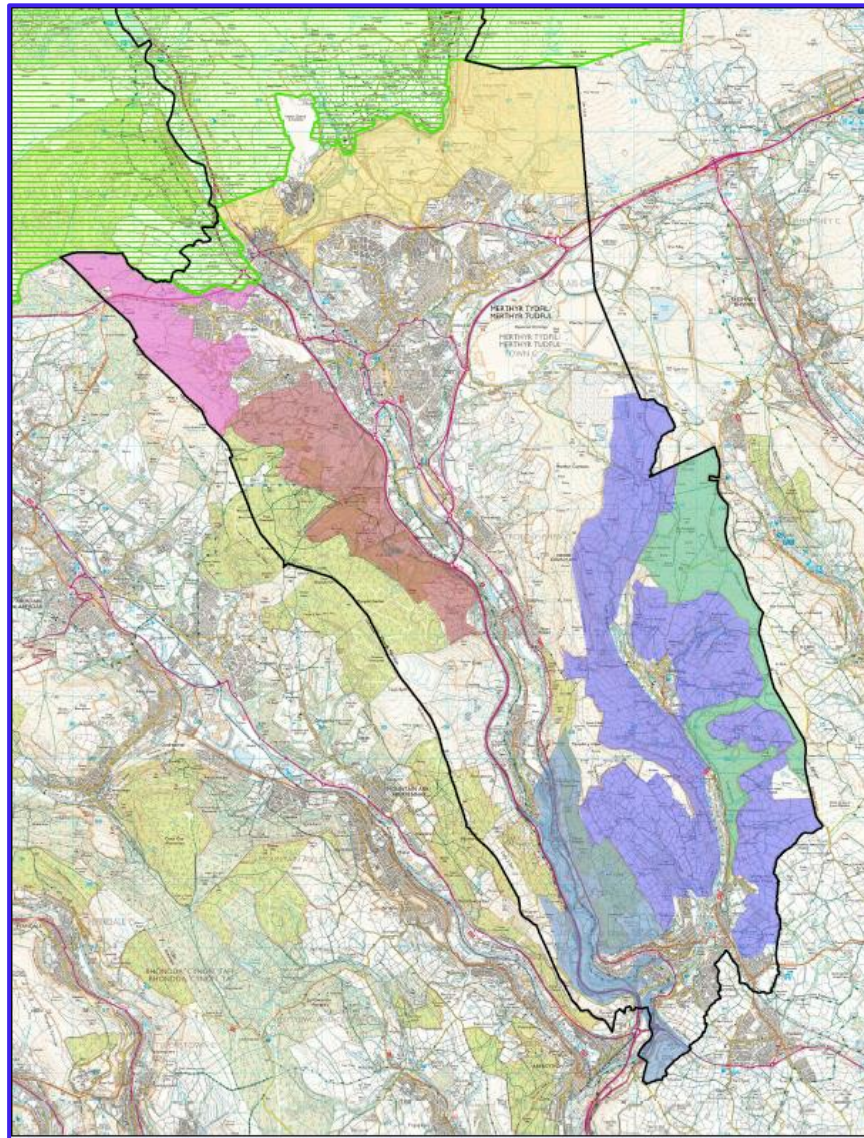
valley sides. The Merthyr Tydfil Landscape of Historic Interest covers 100% of the unit and the unit also includes Gethin Woodland Park.

- Merthyr Tydfil: The settlement of Merthyr Tydfil and associated open space includes the Cyfarthfa Castle Registered Historic Park and Garden. The town is located in a natural basin at the head of the Taff Valley and is surrounded by high hills and ridges. Industrialisation in the 18th and 19<sup>th</sup> centuries has shaped the town and its immediate surroundings. The Merthyr Tydfil Landscape of Historic Interest covers 100% of the unit and the area includes 2 conservation areas and 12 Scheduled Ancient Monuments (SAM).
- Taff Valley southern reach: The Taff Valley from the southern end of Merthyr Tydfil to Edwardsville taking in the wooded and mosaic valley sides and grazed upland fields to the north of Edwardsville. The upland landscape is incorporated as it is closely associated with the valley side. The Merthyr Tydfil Landscape of Historic Interest covers the northern part of the unit and the unit includes Aberfan Cemetery, Garden of Remembrance Former Tip Slide area and 2 SAMs.
- Merthyr Tydfil east valley side: The valley side east of Merthyr Tydfil is particularly distinctive due to the large area of earthworks. The Merthyr Tydfil Landscape of Historic Interest covers the majority of the unit. The hillside to the north comprising the earthworks is indivisible with the BBNP. The southern extent is less open with field boundaries among historic open cast workings.
- Upland moorland between Taff and Rhymney Valleys: The unit comprises upland moorland / grassland with gently undulating broad ridges between valleys with extensive attractive views. There is very little built form in the unit. Merthyr Tydfil Landscape of Historic Interest lies to the north of the unit and the unit includes Gelligaer Common Landscape of Historic Interest and 13 SAMs.
- Bedlinog Valley and farmed upland landscape: The unit comprises valley landscape with steep slopes containing a mix of grazing and pockets of woodland and moorland. There is one major settlement in the valley bottom with scattered settlement throughout. Merthyr Tydfil Landscape of Historic Interest covers a small area to the north of the unit which shares a boundary with Gelligaer Common Landscape of Historic Interest and includes a conservation area and 5 SAMs.
- Upland north of the Heads of the Valley Corridor: This unit incorporates the upland landscape north of the Heads of the Valleys Road (A465) and the heads of two upland valleys (Rhymney and Sirhowy) which have field systems around them in contrast to the surrounding open moorland. The unit is a buffer between the BBNP to the north and development in the Heads of the Valleys road corridor to the south. To the east the unit includes a small portion of the BBNP north of the Clydach Gorge with Merthyr Tydfil Landscape of Historic Interest at the west of the unit.



13.18.8 Landscapes are defined by the interrelationships between people, place and resources, people relate to them as places to live, work and enjoy. Preparatory work is underway to identify Special Landscape Areas to the NRW Methodology (2016). This is based on LANDMAP information. Initial work is yet to undergo wide public consultation. Areas emerging from this work are shown below.

**Figure 3.23: Areas being considered for Special Landscape Area designation**



***Evolution without the Plan***

13.18.9 Without the Plan, key designated landscapes will retain a level of protection in accommodating new development, however as identified in the baseline information above, a number of non-designated features, assets and characteristics significantly contribute to the overall landscape character and sense of place. The LDP offers a tool or delivery mechanism for extended protection of these key assets, for example policy protection for non-designated assets, or protection

against coalescence; thus reducing the risk of loss, or detriment to, factors affecting landscape character.

13.18.10 The Plan can also coordinate opportunity and investment across the whole of the plan area to ensure that development delivers the best possible, high quality, and multifunctional benefits. Therefore, without the Plan future development has an increased likelihood of resulting in negative effects on landscape character, and a decreased likelihood of delivering coordinated and prioritised improvements. With changing agricultural practices, the LDP can also provide a flexible policy approach to agricultural land management and appropriately monitor the effects of the changes in the industry and its implications for the landscape.

***Key Issues***

- Planning Area Adjoins the Brecon Beacons National Park.
- Areas of landscape quality, identified as draft Special Landscape Area Designations.
- Merthyr Tydfil contains a rich defining era of heritage assets based on its origins of Iron Works. The Valleys settlements grew around Coal production.
- Maintaining the integrity of the Merthyr Tydfil Landscape of Outstanding Historic Interest.
- Maintaining the integrity and setting of Cyfarthfa Castle and associated Registered Park and Garden and Aberfan Cemetery - Garden of Remembrance and Former Tip and Slide area.
- Protecting the setting and character of 'character areas' and conservation areas.
- Maintaining traditional field boundaries and habitats.
- Preserving views from promoted routes such as the Taff Trail.

## 4 KEY SUSTAINABILITY ISSUES AND SA FRAMEWORKS

### Introduction

- 4.1 It is important to distil the key sustainability issues and opportunities from the collated baseline information and the review of plans and programmes, as the SA Objectives are developed to address them and form the basis against which the emerging elements of the LDP will be assessed.
- 4.2 An issue is an existing or potential problem, which if resolved, will help contribute to the achievement of sustainable development. Environmental issues, for example, usually concern conflicts between users of resources, allocation of resources, or effects on the environment. An issue could relate to the cumulative effects of many resource uses or from a series of individual proposals. An issue could also relate to the need to take positive action to correct the absence of policy or policy failures, or to promote positive effects (for example enhancement or restorative projects).
- 4.3 Whilst many of the issues will have land use implications, the LDP will, in some instances, not be the best mechanism to address the issues.

### Scoping Workshops

- 4.4 The issues have been derived from evidence and facts (the baseline), and those concerning values (such as amenity) by consultation involvement undertaken to inform other relevant plans, policies and programmes.
- 4.5 Draft key sustainability issues were developed and included in draft briefing documents tabled and discussed at:
- A series of Well-being workshops comprising key stakeholders and officers of MTCBC and Rhondda Cynon Taff CBC held throughout October and November 2016;
  - A joint Well-Being and LDP workshop held in November comprising key stakeholders, Members and officers of MTCBC and held in November 2016;
  - LDP Working Groups comprising key stake holding officers of MTCBC and key representatives of relevant interest groups held in November 2016:
    - ◆ Population and Community Facilities;
    - ◆ Housing/Viability;
    - ◆ Heritage, Countryside and Leisure and
    - ◆ Economic Development and Tourism and an
  - LDP Steering Group comprising Lead Members and Senior Managers of MTCBC held in November 2016:

Following the workshops the key issues were revised by the topic based working groups and agreed by the Steering Group. A list of the workshops is provided at Appendix I.



## Key Sustainability Issues

4.6 The key sustainability issues identified are summarised in Table 4.1 below. These:

- Identify a sustainability or environmental problem (or opportunity for improvement) that the local authority can address in the LDP.
- Identify the cause of the problem or scope of the opportunity (where this is known).
- Are specific to the County Borough rather than abstract and generalised (even though the issue may also occur elsewhere).
- Are succinct.
- Include what is being affected, how it is being affected, and where.
- If the issue is intermittent in nature or it relates to a specific timeframe or event, the circumstances that give rise to the issue, or its duration and frequency (i.e. 'when') is explained.

4.7 They avoid:

- Only stating the issue as a topic (e.g. 'water contamination')
- Defining the desired outcome (that is the role of objectives)
- Focusing only on issues internal to the council
- Pre-empting the solution (e.g. 'the need for a better...'). Issues should be identified before the solution is found, not after.

**Table 4.1: Key Sustainability Issues**

Topic	Key Sustainability Issue
Communities (incl. population).	<ul style="list-style-type: none"> <li>■ The latest (2014) population projections show a declining population from 2024 onwards.</li> <li>■ It is projected that the demographic profile will move towards there being a greater proportion of the population aged 60 and over.</li> <li>■ All population scenarios will have an impact on a wide range of infrastructure such as education facilities, health facilities and leisure facilities.</li> <li>■ The distribution of any population and housing growth must be considered carefully to ensure that existing community services and infrastructure can cope, or that planned new infrastructure and services can be delivered to ensure communities remain sustainable.</li> <li>■ There is still a trend of losing working age people to elsewhere in the UK.</li> </ul>
Health and Equalities	<ul style="list-style-type: none"> <li>■ Life expectancy is significantly below the Wales average.</li> <li>■ Obesity in the adult population is significantly worse than the Wales average.</li> <li>■ A mental health component summary score which is significantly lower than the Wales average.</li> <li>■ Higher Multiple Deprivation is experienced in the north of the County Borough.</li> </ul>

	<ul style="list-style-type: none"> <li>■ The accessibility to and sufficiency of open space varies by ward with some experiencing deficiencies.</li> </ul>
Education	<ul style="list-style-type: none"> <li>■ Sustaining the existing level of population would lead to an increase in the number of school age children in the County Borough over the plan period potentially requiring extensions to existing schools or the construction of new schools.</li> <li>■ The spatial distribution of educational facilities needs to be considered carefully to ensure that facilities remain viable.</li> <li>■ Educational attainment at Key Stage 4 is below the Welsh Average.</li> </ul>
Housing	<ul style="list-style-type: none"> <li>■ Sustaining the existing level of population would require an increase in the number residences in the County Borough.</li> <li>■ There is a significant need for the provision of Social Housing despite the relative affordability of living in Merthyr Tydfil.</li> <li>■ Intermediate affordable housing products need to be carefully considered.</li> <li>■ There is a need to facilitate a sustainable transition towards the housing needs of an aging population.</li> <li>■ A significant range in the quality and energy efficiency of the 'stock'.</li> <li>■ A significant number of 'empty properties'.</li> <li>■ Additional, better quality, housing is required to attract and retain people.</li> <li>■ The spatial distribution and phasing of new housing development must be considered carefully to ensure that it is viable and to ensure that existing infrastructure can cope, or that planned new infrastructure can be delivered to ensure communities remain sustainable.</li> <li>■ Competition from other areas in South East Wales.</li> </ul>
Economy and Employment	<ul style="list-style-type: none"> <li>■ The employment rate in MTCBC is increasing but is still below the Wales average.</li> <li>■ Gross weekly pay is lower than the Wales average.</li> <li>■ Relatively low numbers of people are employed in higher paid/more skilled jobs.</li> <li>■ Key economic sectors include the public sector and service sectors.</li> <li>■ There are relatively low outflows of retail and convenience spending.</li> <li>■ Commercial vacancy rates are higher than the Wales average.</li> <li>■ Very little new development on employment land over the past 5 years.</li> <li>■ Competition from other areas in UK.</li> </ul>
Connections (Transport and Movement)	<ul style="list-style-type: none"> <li>■ Green infrastructure and Active Travel routes are not well connected through the urban grain / pattern.</li> <li>■ The A470, train line and the River Taf, all run North-South and constrain East-West movement and accessibility to bridges, underpasses and roundabouts in some parts of the County Borough.</li> <li>■ Orbital travel (between valleys) is difficult. There is an opportunity to link Merthyr and Aberdare via the Abernant Tunnel.</li> <li>■ Very low levels of active travel commuting for journeys less than 5km.</li> <li>■ Rights of Way connectivity requires improvement (links and loops).</li> </ul>

	<ul style="list-style-type: none"> <li>■ Net out-commuting to Cardiff.</li> <li>■ New central bus station proposed.</li> <li>■ Rail head at the Ffos-y-fran land reclamation site is still in operation.</li> <li>■ Congestion at 'hot spots' on the road network at peak times. An AQMA is proposed at Twynyrodyn Hill, with road traffic being the primary cause of for exceedances of the AQOs.</li> </ul>
Energy	<ul style="list-style-type: none"> <li>■ Domestic consumption is the biggest contributor to local greenhouse gas emissions.</li> <li>■ Transport fuel consumption is also a significant contributor to local greenhouse gas emissions.</li> <li>■ There is opportunity for renewable energy within the plan area.</li> </ul>
Climate Change	<ul style="list-style-type: none"> <li>■ Increases in hot-weather related death and illness and conversely reductions in cold-weather related illness and death.</li> <li>■ Changes in soil conditions, biodiversity and landscape due to warmer, drier summers.</li> <li>■ Changes in species including a decline in native species, changes in migration patterns and increases in alien and invasive species.</li> <li>■ Reductions in river flows and water availability during the summer, affecting water supplies and the natural environment.</li> <li>■ Increases in flooding, affecting people, property and infrastructure.</li> <li>■ Increases in the risk of pests and diseases affecting agriculture and forestry. The risk to livestock is a particular concern.</li> <li>■ Increases in grass yields, allowing a potential increase in livestock production;</li> <li>■ Increases in tourist numbers and a longer tourist season.</li> </ul>
Biodiversity, Flora and Fauna	<ul style="list-style-type: none"> <li>■ 3 Natura 2000 sites within 15km of the County Borough.</li> <li>■ National and local designated sites for nature conservation and geodiversity and the presence of a range of s42 habitats and species.</li> <li>■ Ecological corridors within Merthyr Tydfil and between Merthyr Tydfil and adjoining LAs.</li> <li>■ Fragmented green infrastructure within the urban area.</li> <li>■ Land management practices have varying impacts on the biodiversity present.</li> <li>■ Climate change will place increased pressure on biodiversity and ecosystems.</li> <li>■ Post-industrial land.</li> </ul>
Water and Flooding	<ul style="list-style-type: none"> <li>■ Climate change will place increased pressure on water resources, in particular in the summer months.</li> <li>■ The chemical status of Water is deteriorating in the Nant Morlais.</li> <li>■ Improving and/or preventing the decline of the quality of groundwater and surface-water and water bodies.</li> <li>■ Parts of the Town Centre are identified as being at risk from flooding.</li> </ul>
Air Quality	<ul style="list-style-type: none"> <li>■ 1AQMA designated for exceedances of Nitrogen Dioxide in Twynyrodyn Hill caused by Traffic.</li> <li>■ A new bus station has received planning permission.</li> </ul>

	<ul style="list-style-type: none"> <li>■ East Merthyr Land reclamation phase 3 (Ffos-y-fran) is ongoing.</li> </ul>
Noise	<ul style="list-style-type: none"> <li>■ The Noise maps indicate that the existing primary source of noise pollution within MTCBC is from the classified roads within the County Borough.</li> </ul>
Minerals, Land and Soil	<ul style="list-style-type: none"> <li>■ There is no 'best and most versatile' agricultural land, present within the County Borough. There is very little soil which may be used for growing.</li> <li>■ Existing permitted reserves.</li> <li>■ Mineral resources worthy of safeguarding have been identified by the BGS.</li> <li>■ A large amount of previously developed and contaminated land.</li> <li>■ A significant land reclamation scheme is underway in the County Borough and one is proposed in a neighbouring areas.</li> <li>■ Encouraging the transportation of raw materials by rail.</li> </ul>
Waste	<ul style="list-style-type: none"> <li>■ The need to facilitate the provision of an adequate and integrated network of waste facilities.</li> <li>■ Capacity of waste site at Trecatti.</li> </ul>
Cultural Heritage (inc. Welsh Language) & Historic Environment	<ul style="list-style-type: none"> <li>■ Merthyr Tydfil contains a rich defining era of heritage assets, which require sensitive management and protection.</li> <li>■ Merthyr Tydfil has the second highest proportion of population who are unable to communicate in Welsh (after Blaenau Gwent) at 91.36% (2011 Census). Across Wales the ambition is for approximately a third of the population to use Welsh by 2050.</li> </ul>
Landscape and Townscape	<ul style="list-style-type: none"> <li>■ Planning Area Adjoins the Brecon Beacons National Park.</li> <li>■ Areas of landscape quality, identified as draft Special Landscape Area Designations.</li> <li>■ Merthyr Tydfil contains a rich defining era of heritage assets based on its origins of Iron Works. The Valleys settlements grew around Coal production.</li> <li>■ Maintaining the integrity of the Merthyr Tydfil Landscape of Outstanding Historic Interest.</li> <li>■ Maintaining the integrity and setting of Cyfarthfa Castle and associated Registered Park and Garden and Aberfan Cemetery - Garden of Remembrance and Former Tip and Slide area.</li> <li>■ Protecting the setting and character of 'character areas' and conservation areas.</li> <li>■ Maintaining traditional field boundaries and habitats.</li> <li>■ Preserving views from promoted routes such as the Taff Trail.</li> </ul>

## 5 PROPOSED METHODS

### Introduction

- 5.1 This section explains the proposed approach and methods for the SA (incorporating SEA, HIA & EqIA) of the Merthyr Tydfil LDP. The Council is currently gathering and producing evidence that will inform the development and identification of reasonable options for the level and distribution of growth as well as potential sites to accommodate that growth. For the purposes of the Merthyr Tydfil LDP and this SA, a reasonable alternative is considered to be one that is realistic and deliverable during the timescales and within the geographical scope of the Plan. It also needs to be in line with the objectives of the Plan.

### SA of Alternatives

#### *Strategic Options (overall level and distribution of growth)*

- 5.2 The Strategic SA Framework presented later in this section, Table 5.2, will form the basis for appraising reasonable strategic options for the level and distribution of growth. For the purposes of the SA for Merthyr Tydfil LDP a reasonable option is considered to be one that is realistic and deliverable within the scope, timescales and objectives of the emerging Plan. The decision-aiding questions will be used to guide the appraisal in the determination of the nature and significance of the effects against SA Objectives. The categories of significance are set out in the key below.

**Figure 5.1: SA Significance Key**

Categories of Significance		
Symbol	Meaning	Sustainability Effect
++	Major Positive	Proposed development encouraged as would resolve existing sustainability problem
+	Minor Positive	No sustainability constraints and proposed development acceptable
0	Neutral	Neutral effect
?	Uncertain	Uncertain or Unknown Effects
-	Minor Negative	Potential sustainability issues: mitigation and/or negotiation possible
--	Major Negative	Problematical and improbable because of known sustainability issues; mitigation likely to be difficult and/or expensive

- 5.3 Each reasonable strategic option will be subject to assessment using the full Strategic SA Framework (Table 5.2) and recorded in a matrix similar to that presented in Figure 5.2 below. These objectives have been drafted following the identification of Key issues during the Scoping Stage and link with the national Well-being goals.

- 5.4 The nature of the likely sustainability effects (including positive/negative, duration (short, medium or long term), and permanent / temporary, secondary, cumulative and synergistic) will be described in the appraisal commentary, together with any assumptions or uncertainties. Where necessary, the SA will make suggestions and recommendations to mitigate negative effects or promote opportunities for enhancement. The appraisal will be undertaken using professional judgment, supported by the baseline information and wider Plan evidence base. A summary appraisal commentary will be provided to set out any significant effects identified for individual options, along with suggestions for mitigation or enhancement to be made where relevant.

**Figure 5.2: Example SA Matrix for Strategic Options**

SA Objective	Assessment of effects	Option		
		1	2	3
		Description of option		
1	<p>Narrative describing likely significant effects; possibilities for mitigating negative effects &amp; enhancing positive effects; residual effects; comparative assessment; supported by baseline evidence where available; uncertainty and any key gaps in information; and any recommendations for plan-making.</p> <p>Nature of the likely sustainability effect (including positive/negative, short - medium term (5-10 years)/long term (10 - 20 years plus), permanent/temporary, secondary, cumulative and synergistic); Uncertainty.</p>	+	?	-

- 5.5 Table 5.3 provides details of data that may be used to monitor trends for each of the Sustainability Objectives. Taken together, these indicators provide an overview of the Sustainability of the County Borough which may then be considered alongside broader development monitoring information to help determine whether they are successful interventions.

### ***Site Options***

- 5.6 The call for sites (September to December 2016), Joint Housing Land Availability Assessment and other Authority Identified Sites (for example SINCS, Regeneration Projects and Active Travel routes) will provide a 'long list' of potential site options. Each of these sites will be considered through the Council's site assessment process, which will be published for public consultation alongside the Candidate Sites Register and Preferred Strategy in 2017.
- 5.7 The site assessment process will be used to assess identified sites against a range of criteria, helping to filter or reduce the number of potentially suitable sites for development. The SA alongside a range of other studies and evidence base documents will inform the Council's site assessment process and therefore decision in terms of which sites are progressed or rejected through the emerging LDP.
- 5.8 The report will consider all aspects of the plan and show whether a positive or negative impact is predicted. Indirect impacts (Secondary), incremental effects resulting from a combination of two or more individual effects (Cumulative), or from an interaction between individual effects (i.e. synergistic effect effects) or any progressive effect likely to emerge over time will also be reported
- 5.9 The SEA Directive and Regulations require the SA to consider all reasonable alternatives. For the purposes of the SA for the Merthyr Tydfil LDP a reasonable site option is considered to be one that is realistic and deliverable within the scope, timescales and objectives of the emerging Plan. It is therefore considered that all site options which accord with the LDPs strategy (identified at Preferred Strategy stage) will be considered a reasonable alternative and be subject to SA.
- 5.10 The Sites SA Framework presented in Table 5.5 will form the basis for appraising reasonable options for site allocations. It sets out the standards and thresholds that will be used to determine the nature and significance of effects against each SA Objective, including any assumptions or uncertainties that will be made. This ensures a consistent approach is taken for the appraisal of all reasonable site options and also includes a clear explanation of where particular issues are considered within the Sites SA Framework. It should be noted that the Sites SA Framework (Table 5.5) will inform the Council's site assessment criteria to ensure they are consistent and effectively inform one another.
- 5.11 Each reasonable site option will be subject to assessment using the full Strategic SA Framework (Table 5.5). This includes all site options that pass through Stage 2 of the Council's site assessment process. The findings of the SA for each site option

will be grouped together by community or geographical cluster. This will allow a clear comparison of the SA findings of each site option for a settlement or area as well as allow the consideration of cumulative effects. An example of a detailed appraisal matrix for a settlement or cluster of sites is provided in Figure 5.3 below.

**Table 5.1: Example SA Matrix for Site Options**

Community / Geographical Cluster of site options																		
Reasonable Site options	SA Objectives																	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
Option 1																		
Option 2																		
Option 3																		
Option 4																		
Option 5																		
Option 6																		
<p>Appraisal Summary:</p> <p>Narrative reporting of significant effects for individual sites, cumulative effects, any uncertainties, mitigation and SA.</p>																		

- 5.11 The appraisal will be undertaken using professional judgment, supported by the baseline information and wider evidence base where necessary. A summary appraisal commentary will be provided to set out any significant effects identified for individual site options, along with suggestions for mitigation or enhancement to be made where relevant. The nature of the likely sustainability effects (including positive/negative, duration, permanent/ temporary, secondary, cumulative and synergistic) will be described, along with any assumptions or uncertainties noted. Where necessary, the appraisal commentary will also identify any potential cumulative effects for that settlement or geographical cluster of sites.

### ***Policy Options***

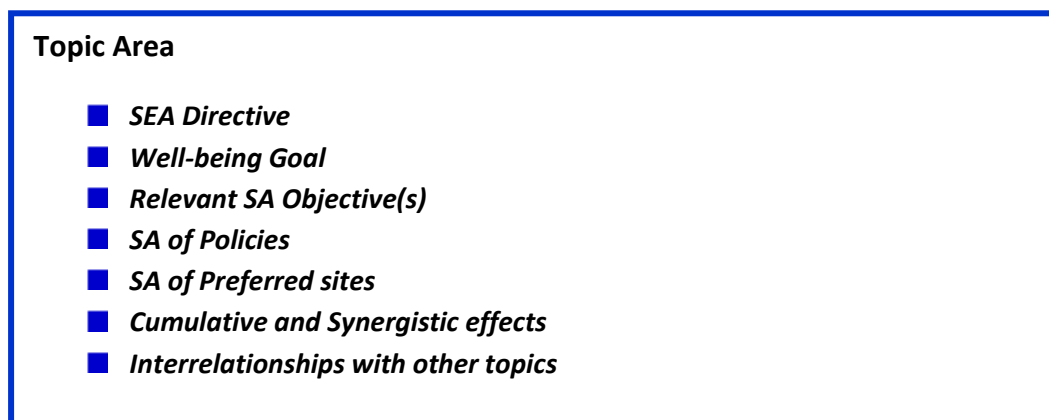
- 5.12 Each reasonable policy option will be considered against the Strategic SA Framework (Table 5.2). A comparative appraisal narrative will be produced for each policy topic or area to set out any significant effects for individual policy options, along with suggestions for mitigation or enhancement.
- 5.13 The SA of the Merthyr Tydfil Local Development Plan, including policies and site allocations, will be structured under topic headings, which have been linked to Objectives in the SA Framework as well as topics in the SEA Directive and the Well-being of Future Generations (Wales) Act. An example of a topic and sub-headings is provided below in Figure 5.3. This will provide a framework and structure to



evaluate the likely significant effects of the Local Development Plan against these key topics, which will include health and equality.

- 5.14 The appraisal will be undertaken using professional judgment, supported by the baseline information and evidence for the Merthyr Tydfil Local Development Plan, as well as any other relevant information sources available including GIS mapping. The nature of the likely sustainability effects (including positive/negative, duration, permanent/ temporary, secondary, cumulative and synergistic) will be described, together with any uncertainty noted. Evidence will be cited where applicable and a commentary will be provided along with suggestions for mitigation or enhancement where relevant. SA is informed by the best available information and data; however, data gaps and uncertainties exist and it is not always possible to accurately predict effects at a strategic level of assessment. This method allows the SA to focus on the policies and preferred sites that are likely to have significant effects and provide further detail.

**Figure 5.3: SA Topic and Sub-headings**



### **Health and Equalities Impact Assessment**

- 5.15 Consideration of effects on equality and health will be made throughout the SA process. The SA topics, objectives and frameworks (Tables 5.2 and 5.4) contain several direct and indirect links to health and equality. Consideration will also be given to undertaking a more detailed Health Impact Assessment (HIA) at preferred Strategy and Deposit stages to demonstrate how the LDP takes on board the provisions relating to Health and Well-being set out in the Well-being of Future Generations (Wales) Act 2015. To demonstrate compliance with the Equality Act 2010 a separate detailed screening will be carried out, which will be presented as technical Appendix to the SA Report.

### **Habitats Regulations Assessment (HRA)**

- 5.16 The Conservation of Habitats and Species Regulations (as amended) (2010) [the Habitats Regulations] require that HRA is applied to all statutory land use plans in England and Wales. The aim of the HRA process is to assess the potential effects

arising from a plan against the nature conservation objectives of any site designated for its nature conservation importance. The HRA of the Merthyr Tydfil LDP will be undertaken alongside the SA with the findings of the HRA informing the SA. The methods and findings of the HRA process will be reported separately and be sent to the statutory consultee (NRW) and placed on consultation for the wider public alongside the SA and the emerging LDP.

### **How Will the SA Inform the Decision-Making Process?**

- 5.17 SA is an assessment tool that helps to inform decision-making, it is not the sole basis for a decision. The Council will consider the findings of the SA alongside the wider evidence base to inform decision-making in relation to the selection or rejection of alternatives and development of policy for the LDP. SA is an iterative and ongoing process that will be undertaken at each stage of plan-making. SA Reports will accompany the LDP on consultation at various stages and set out the method and findings of the SA as well as reasons for the selection or rejection of alternatives in plan-making.

### **Consultation**

- 5.18 The Draft SA Scoping Report has been informed by the first round of LDP Steering and Working groups (held in November 2016) and the Well-being briefing notes prepared to inform initial involvement on the preparation of the Cwm Taf Local Well-being Plan (See appendix 1). As the work develops it will continue to inform the SA. This report will be subject to consultation with the SEA statutory bodies; Cadw and Natural Resources Wales as. Any consultation responses received will be considered and inform the final SA Scoping Report which will then be developed into the initial SA Report of the Preferred Strategy.

**Table 5.2: Strategic SA Framework**

Topic	Key Sustainability Issues	SA Objectives	Decision-Aiding Questions
<b>Communities (incl. Population)</b>  SEA Directive Topic(s): <ul style="list-style-type: none"> <li>◆ Population</li> <li>◆ Material Assets</li> </ul> Well-being Goals: <ul style="list-style-type: none"> <li>◆ A more equal Wales</li> <li>◆ A Wales of cohesive communities</li> <li>◆ A Wales of vibrant culture &amp; thriving Welsh language</li> <li>◆ A healthier Wales</li> </ul>	<ul style="list-style-type: none"> <li>◆ The latest (2014) population projections show a declining population from 2024 onwards.</li> <li>◆ It is projected that the demographic profile will move towards there being a greater proportion of the population aged 60 and over.</li> <li>◆ All population scenarios will have an impact on a wide range of infrastructure such as education facilities, health facilities and leisure facilities.</li> <li>◆ The distribution of any population and housing growth must be considered carefully to ensure that existing community services and infrastructure can cope, or that planned new infrastructure and services can be delivered to ensure communities remain sustainable.</li> <li>◆ There is still a trend of losing working age people to elsewhere in the UK.</li> <li>◆ Sustaining the existing level of population would lead to an increase in the number of school age children in the County Borough over the plan period potentially requiring extensions to existing schools or the construction of new schools.</li> <li>◆ The spatial distribution of educational facilities needs to be considered carefully to ensure that facilities remain viable.</li> </ul>	<ol style="list-style-type: none"> <li>1. To ensure that the community and social infrastructure needs of all residents and communities are met.</li> <li>2. To maintain and enhance community and settlement identities.</li> <li>3. To support a sustainable level of population growth.</li> </ol>	<ul style="list-style-type: none"> <li>◆ Does the option present opportunities to retain and or enhance the identity of a community or settlement and effectively integrate within the existing settlement pattern or is it likely to result in change?</li> <li>◆ Is the option likely to necessitate investment in education and training facilities and or recreational and open space provision?</li> <li>◆ Does the option ensure that a sufficient level of sustainable community services/facilities will be delivered to meet the identified needs or projected deficiencies of all communities and or provide opportunities to enhance or expand the existing provision in the plan area?</li> <li>◆ To what extent will the option assist in sustaining the level of the working aged population living and allow for the projected transition in the demographic profile in the County Borough?</li> </ul>

Topic	Key Sustainability Issues	SA Objectives	Decision-Aiding Questions
	<ul style="list-style-type: none"> <li>◆ Educational attainment at Key Stage 4 is below the Welsh Average.</li> </ul>		
<b>Health and Equalities</b>  SEA Directive Topic(s): <ul style="list-style-type: none"> <li>◆ Human Health</li> <li>◆ Material Assets</li> </ul> Well-being Goals: <ul style="list-style-type: none"> <li>◆ A healthier Wales</li> <li>◆ A more equal Wales</li> <li>◆ A Wales of cohesive communities</li> <li>◆ A Wales of vibrant culture &amp; thriving Welsh language</li> </ul>	<ul style="list-style-type: none"> <li>◆ Life expectancy is significantly below the Wales average.</li> <li>◆ Obesity in the adult population is significantly worse than the Wales average.</li> <li>◆ A mental health component summary score which is significantly lower than the Wales average.</li> <li>◆ Higher multiple deprivation is experienced in the north of the County Borough.</li> <li>◆ The accessibility to and sufficiency of open space varies by ward with some experiencing deficiencies.</li> <li>◆ The Noise maps indicate that the existing primary source of noise pollution within MTCBC is from the classified roads within the County Borough.</li> </ul>	4. To improve human health and well-being and reduce inequalities.	<ul style="list-style-type: none"> <li>◆ Is the option susceptible to the risk of a serious HSE, vehicular or natural hazard?</li> <li>◆ Does the option offer the potential for investment, regeneration or renewal in areas experiencing high level of multiple deprivation?</li> <li>◆ Does the option present opportunities to retain and expand the identified need of all communities' and residents health provision?</li> <li>◆ Is the option likely to have an effect on communities and settlements in terms of increased noise generating activities?</li> <li>◆ Is the option likely to have an effect on communities and settlements in terms of community safety and cleanliness?</li> </ul>

Topic	Key Sustainability Issues	SA Objectives	Decision-Aiding Questions
<b>Housing</b>  SEA Directive Topic(s): <ul style="list-style-type: none"> <li>Population</li> <li>Material Assets</li> <li>Human Health</li> </ul> Well-being Goals: <ul style="list-style-type: none"> <li>A Wales of cohesive communities</li> <li>A more equal Wales</li> <li>A globally responsible Wales</li> </ul>	<ul style="list-style-type: none"> <li>Sustaining the existing level of population would require an increase in the number residences in the County Borough.</li> <li>There is a significant need for the provision of Social Housing despite the relative affordability of living in Merthyr Tydfil.</li> <li>Intermediate affordable housing products need to be carefully considered.</li> <li>There is a need to facilitate a sustainable transition towards the housing needs of an aging population.</li> <li>A significant range in the quality and energy efficiency of the 'stock'.</li> <li>A significant number of 'empty properties'.</li> <li>Additional, better quality, housing is required to attract and retain people.</li> <li>The spatial distribution and phasing of new housing development must be considered carefully to ensure that it is viable and to ensure that existing infrastructure can cope, or that planned new infrastructure can be delivered to ensure communities remain sustainable.</li> <li>Competition from other areas in South East Wales.</li> </ul>	5. To meet the housing needs of all through a mix of dwelling tenures and types.	<ul style="list-style-type: none"> <li>Does the option provide a sufficient range of high quality and accessible housing land to facilitate the sustainable development of the new housing requirement in the plan area?</li> <li>Does the option provide the opportunity to promote an appropriate mix of housing size, type and tenure for the identified needs of communities including those with special needs within the Plan area?</li> <li>Does the option provide opportunities to meet affordable housing needs to enable people to remain within the plan area?</li> </ul>
		6. To improve the overall quality and energy efficiency of the housing stock.	<ul style="list-style-type: none"> <li>Does the option present opportunities to protect and enhance the existing traditional housing stock where appropriate?</li> <li>Does the option present opportunities to improve the energy efficiency of the existing and new housing stock?</li> <li>Does the option present opportunities to influence good sustainable design in new housing developments?</li> </ul>

Topic	Key Sustainability Issues	SA Objectives	Decision-Aiding Questions
<b>Economy and Employment</b>  SEA Directive Topic(s): <ul style="list-style-type: none"> <li>Material Assets</li> </ul> Well-being Goals: <ul style="list-style-type: none"> <li>A prosperous Wales</li> <li>A more equal Wales</li> <li>A Wales of cohesive communities</li> <li>A globally responsible Wales</li> </ul>	<ul style="list-style-type: none"> <li>The employment rate in MTCBC is increasing but is still below the Wales average.</li> <li>Gross weekly pay is lower than the Wales average.</li> <li>Relatively low numbers of people are employed in higher paid/more skilled jobs.</li> <li>Key economic sectors include the public sector and service sectors.</li> <li>There are relatively low outflows of retail and convenience spending.</li> <li>Commercial vacancy rates are higher than the Wales average.</li> <li>Very little new development on employment land over the past 5 years.</li> <li>Competition from other areas in UK.</li> </ul>	7. To enhance the attractiveness of the County Borough to support economic development.	<ul style="list-style-type: none"> <li>Does the option enable the safeguarding of existing employment land in the plan area?</li> <li>Does the option present opportunities to attract and provide a sufficient range of high quality and accessible employment land to facilitate the sustainable expansion of new jobs in the plan area?</li> <li>Does the option present opportunities to support and enhance the vitality and viability of the Town and local Centres?</li> <li>Does the option safeguard the low level of retail convenience spend loss?</li> <li>Does the option present opportunities to retain and facilitate the sustainable expansion of resident businesses in the plan area?</li> <li>Does the option present opportunities to retain, develop and enhance the MTCB area as a tourist destination?</li> </ul>
<b>Connections (incl. transport and movement)</b>  SEA Directive Topic(s): <ul style="list-style-type: none"> <li>Material assets</li> <li>Air</li> </ul> Well-being Goals: <ul style="list-style-type: none"> <li>A prosperous Wales</li> <li>A globally responsible</li> </ul>	<ul style="list-style-type: none"> <li>Green infrastructure and Active Travel routes are not well connected through the urban grain / pattern.</li> <li>The A470, train line and the River Taf, all run North-South and constrain East-West movement and accessibility to bridges, underpasses and roundabouts in some parts of the County Borough.</li> <li>Orbital travel (between valleys) is difficult. There is an opportunity to link Merthyr</li> </ul>	8. To reduce the need to travel and encourage sustainable modes of transport.	<ul style="list-style-type: none"> <li>Does the option present opportunities to improve access to and the quality of sustainable transport modes for all communities, including public transport, freight and active travel routes?</li> <li>Does the option present opportunities to promote the use of green infrastructure within communities and to connect settlements?</li> </ul>

Topic	Key Sustainability Issues	SA Objectives	Decision-Aiding Questions
Wales	<p>and Aberdare via the Abernant Tunnel.</p> <ul style="list-style-type: none"> <li>Very low levels of active travel commuting for journeys less than 5km.</li> <li>Rights of Way connectivity requires improvement (links and loops).</li> <li>Net out-commuting to Cardiff.</li> <li>New central bus station proposed.</li> <li>Rail head at the Ffos-y-fran land reclamation site is still in operation.</li> <li>Congestion at 'hot spots' on the road network at peak times. An AQMA is proposed at Twynyrodyn Hill, with road traffic being the primary cause of for exceedances of the AQOs.</li> </ul>	9. To ensure essential utilities and infrastructure are available to meet the needs of all.	<ul style="list-style-type: none"> <li>Does the option ensure that sufficient land and infrastructure capacity e.g. electricity, gas, water, telecommunications and waste facilities and is available to facilitate required or identified improvements?</li> <li>Is the option likely to have an effect on communities and settlements in terms of increased emissions and or air quality and proximity to landfill sites?</li> <li>Is the option likely to increase or exacerbate levels of traffic congestion and air quality 'hot spots'?</li> <li>Does the option offer opportunities to enhance or improve the existing road or rail (including freight) network?</li> <li>Does the option enable the safeguarding of locally or regionally planned transport routes or proposals?</li> </ul>
<p><b>Energy</b></p> <p>SEA Directive Topic(s):</p> <ul style="list-style-type: none"> <li>Material Assets</li> <li>Climatic Factors</li> <li>Air</li> </ul> <p>Well-being Goals:</p> <ul style="list-style-type: none"> <li>A prosperous Wales</li> <li>A resilient Wales</li> <li>A globally responsible Wales</li> </ul>	<ul style="list-style-type: none"> <li>Domestic consumption is the biggest contributor to local greenhouse gas emissions.</li> <li>Transport fuel consumption is also a significant contributor to local greenhouse gas emissions.</li> <li>There is opportunity for renewable energy within the plan area.</li> </ul>	<p>10. To minimise energy use and optimise opportunities for renewable energy generation.</p> <p><i>See SA objectives 6 and 9 above and SA objective 11 below.</i></p>	<ul style="list-style-type: none"> <li>Does the option present opportunities to promote the use and production of renewable energy in the plan area?</li> <li>Does the option present opportunities to promote energy efficiency in new development?</li> <li>Does the option present opportunities to reduce fuel poverty?</li> </ul>

Topic	Key Sustainability Issues	SA Objectives	Decision-Aiding Questions
<b>Climate Change</b>  SEA Directive Topic(s): <ul style="list-style-type: none"> <li>◆ Climatic Factors</li> <li>◆ Water</li> <li>◆ Material Assets</li> </ul> Well-being Goals: <ul style="list-style-type: none"> <li>◆ A resilient Wales</li> <li>◆ A globally responsible Wales</li> <li>◆ A healthier Wales</li> </ul>	<ul style="list-style-type: none"> <li>◆ Increases in hot-weather related death and illness and conversely reductions in cold-weather related illness and death.</li> <li>◆ Changes in soil conditions, biodiversity and landscape due to warmer, drier summers.</li> <li>◆ Changes in species including a decline in native species, changes in migration patterns and increases in alien and invasive species.</li> <li>◆ Reductions in river flows and water availability during the summer, affecting water supplies and the natural environment.</li> <li>◆ Increases in flooding, affecting people, property and infrastructure.</li> <li>◆ Increases in the risk of pests and diseases affecting agriculture and forestry. The risk to livestock is a particular concern.</li> <li>◆ Increases in grass yields, allowing a potential increase in livestock production;</li> <li>◆ Increases in tourist numbers and a longer tourist season.</li> </ul>	11. To minimise the contribution to climate change whilst maximising resilience to it.	<ul style="list-style-type: none"> <li>◆ Is the option likely to result in an increase in green house gas emissions?</li> <li>◆ Would the option ensure that new development is resilient to the effects of climate change?</li> <li>◆ Does the option present opportunities to promote the use of green infrastructure to help to reduce the County Boroughs carbon footprint?</li> <li>◆ Is the option likely to have an effect on microclimates and what is that effect likely to be?</li> </ul>
<b>Biodiversity, Flora and Fauna.</b>  SEA Directive Topic(s): <ul style="list-style-type: none"> <li>◆ Biodiversity</li> <li>◆ Flora</li> <li>◆ Fauna</li> <li>◆ Soil</li> </ul>	<ul style="list-style-type: none"> <li>◆ 3 Natura 2000 sites within 15km of the County Borough.</li> <li>◆ National and local designated sites for nature conservation and geodiversity and the presence of a range of s42 habitats and species.</li> <li>◆ Ecological corridors within Merthyr Tydfil</li> </ul>	12. To maintain and enhance biodiversity and ecosystem connectivity.  <i>See SA objective 7 above.</i>	<ul style="list-style-type: none"> <li>◆ Is the option likely to have an effect on nationally or locally designated locally designated sites?</li> <li>◆ Is the option likely to result in the loss or fragmentation of important ecosystems green spaces or reduce connectivity of green corridors?</li> </ul>



Topic	Key Sustainability Issues	SA Objectives	Decision-Aiding Questions
<p>Well-being Goals:</p> <ul style="list-style-type: none"> <li>◆ A resilient Wales</li> <li>◆ A globally responsible Wales</li> </ul>	<p>and between Merthyr Tydfil and adjoining LAs.</p> <ul style="list-style-type: none"> <li>◆ Fragmented green infrastructure within the urban area.</li> <li>◆ Land management practices have varying impacts on the biodiversity present.</li> <li>◆ Climate change will place increased pressure on biodiversity and ecosystems.</li> <li>◆ Post-industrial land.</li> </ul>		<ul style="list-style-type: none"> <li>◆ Does the option present opportunities to enhance or manage important habitats or species and or provide a net gain?</li> <li>◆ Does the option present opportunities for communities to manage their own environments?</li> </ul>
<p><b>Water(inc. Flooding)</b></p> <p>SEA Directive Topic(s):</p> <ul style="list-style-type: none"> <li>◆ Water</li> <li>◆ Climatic Factors</li> <li>◆ Material Assets</li> </ul> <p>Well-being Goals:</p> <ul style="list-style-type: none"> <li>◆ A resilient Wales</li> <li>◆ A globally responsible Wales</li> <li>◆ A prosperous Wales</li> </ul>	<ul style="list-style-type: none"> <li>◆ Climate change will place increased pressure on water resources, in particular in the summer months.</li> <li>◆ The chemical status of Water is deteriorating in the Nant Morlais.</li> <li>◆ Improving and/or preventing the decline of the quality of groundwater and surface-water and water bodies. Parts of the Town Centre are identified as being at risk from flooding.</li> </ul>	<p>13. To minimise the demand for water and improve the water environment.</p> <p><i>See SA objective 9 above.</i></p>	<ul style="list-style-type: none"> <li>◆ Is the option likely to have an effect on the sustainable use of water resources?</li> <li>◆ Is the option likely to have an effect on the quality of ground water bodies?</li> <li>◆ Does the option present opportunities to promote water-based recreation?</li> </ul>
		<p>14. To minimise the risk of flooding.</p> <p><i>See SA objective 11 above.</i></p>	<ul style="list-style-type: none"> <li>◆ Does the option direct development away from flood risk areas?</li> <li>◆ Does the option enable the safeguarding of land to manage or reduce future flood risks in the plan area?</li> <li>◆ Does the option present opportunities to protect the natural and built environment?</li> <li>◆ Does the option present opportunities to promote the use of sustainable drainage systems (SUDS) in the plan area?</li> </ul>

Topic	Key Sustainability Issues	SA Objectives	Decision-Aiding Questions
<b>Air Quality</b>  SEA Directive Topic(s): <ul style="list-style-type: none"> <li>Air</li> <li>Human Health</li> <li>Material Assets</li> </ul> Well-being Goals: <ul style="list-style-type: none"> <li>A resilient Wales</li> <li>A healthier Wales</li> <li>A globally responsible Wales</li> </ul>	<ul style="list-style-type: none"> <li>1AQMA designated for exceedances of Nitrogen Dioxide in Twynrodyn Hill caused by Traffic.</li> <li>A new bus station has received planning permission.</li> <li>East Merthyr Land reclamation phase 3 (Ffos-y-fran) is ongoing.</li> </ul>	<i>See SA objectives 8 and 11 above.</i>	<i>See SA objectives 8 and 11 above.</i>
<b>Waste</b>  SEA Directive Topic(s): <ul style="list-style-type: none"> <li>Biodiversity</li> <li>Landscape</li> <li>Material Assets</li> <li>Soil</li> </ul> Well-being Goals: <ul style="list-style-type: none"> <li>A prosperous Wales</li> <li>A resilient Wales</li> <li>A globally responsible Wales</li> </ul>	<ul style="list-style-type: none"> <li>The need to facilitate the provision of an adequate and integrated network of waste facilities.</li> <li>Capacity of waste site at Trecatti.</li> </ul>	<i>See SA objectives 8, 9 and 11 above.</i>	<i>See SA objectives 8, 9 and 11 above.</i>
<b>Minerals, Land &amp; Soil</b>  SEA Directive Topic(s): <ul style="list-style-type: none"> <li>Biodiversity</li> <li>Landscape</li> </ul>	<ul style="list-style-type: none"> <li>There is no 'best and most versatile' agricultural land, present within the County</li> <li>Borough. There is very little soil which may be used for growing.</li> </ul>	15. To protect and conserve soil and safeguard mineral resources.	<ul style="list-style-type: none"> <li>Does the option enable the safeguarding of mineral resources sustainable levels of extraction in the plan area?</li> <li>Is the option reliant on the pre-</li> </ul>

Topic	Key Sustainability Issues	SA Objectives	Decision-Aiding Questions
<ul style="list-style-type: none"> <li>Material Assets</li> <li>Soil</li> </ul> <p>Well-being Goals:</p> <ul style="list-style-type: none"> <li>A prosperous Wales</li> <li>A resilient Wales</li> <li>A globally responsible Wales</li> </ul>	<ul style="list-style-type: none"> <li>Existing permitted reserves.</li> <li>Mineral resources worthy of safeguarding have been identified by the BGS.</li> <li>A large amount of previously developed and contaminated land.</li> <li>A significant land reclamation scheme is underway in the County Borough and one is proposed in a neighbouring areas.</li> <li>Encouraging the transportation of raw materials by rail.</li> </ul>	<p>See SA objectives 9 and 11 above.</p>	<p>extraction of mineral resources and follow-up restoration?</p> <ul style="list-style-type: none"> <li>Does the option present potential opportunities to enable safe and appropriate restoration, regeneration or re-use of previously developed brownfield or contaminated land in the plan area?</li> <li>Is the option likely to have an effect on previously undeveloped greenfield or agricultural land in the plan area?</li> </ul>
<p><b>Cultural Heritage (inc. Welsh Language) &amp; Historic Environment</b></p> <p>SEA Directive Topic(s):</p> <ul style="list-style-type: none"> <li>Cultural Heritage</li> <li>Material Assets</li> </ul> <p>Well-being Goals:</p> <ul style="list-style-type: none"> <li>A Wales of vibrant culture &amp; thriving Welsh language</li> <li>A Wales of cohesive communities</li> <li>A more equal Wales</li> </ul>	<ul style="list-style-type: none"> <li>Merthyr Tydfil contains a rich defining era of heritage assets, which require sensitive management and protection.</li> <li>Merthyr Tydfil has the second highest proportion of population who are unable to communicate in Welsh (after Blaenau Gwent) at 91.36% (2011 Census).</li> </ul>	<p>16. To protect and enhance heritage assets that defines the County Borough as the most significant Welsh town of the Industrial Revolution.</p>	<ul style="list-style-type: none"> <li>Is the option likely to have an effect on nationally or locally designated heritage assets and/or their settings?</li> <li>Is the option likely to have an effect on any important non-designated heritage assets and/or their settings?</li> <li>Does the option present potential opportunities to enhance any heritage assets or their settings in the plan area?</li> </ul>
		<p>17. To facilitate services and facilities that support distinctive local culture and the Welsh language.</p>	<ul style="list-style-type: none"> <li>Does the option present opportunities to facilitate the promotion of the Welsh language or local arts, sports and culture in the plan area?</li> </ul>

Topic	Key Sustainability Issues	SA Objectives	Decision-Aiding Questions
<p><b>Landscape &amp; Townscape (inc. Built Environment)</b></p> <p>SEA Directive Topic(s):</p> <ul style="list-style-type: none"> <li>◆ Landscape</li> <li>◆ Material Assets</li> </ul> <p>Well-being Goals:</p> <ul style="list-style-type: none"> <li>◆ A Wales of cohesive communities</li> <li>◆ A Wales of vibrant culture &amp; thriving Welsh language</li> <li>◆ A resilient Wales</li> </ul>	<ul style="list-style-type: none"> <li>◆ Planning Area Adjoins the Brecon Beacons National Park.</li> <li>◆ Areas of landscape quality, identified as draft Special Landscape Area Designations.</li> <li>◆ Merthyr Tydfil contains a rich defining era of heritage assets based on its origins of Iron Works. The Valleys settlements grew around Coal production.</li> <li>◆ Maintaining the integrity of the Merthyr Tydfil Landscape of Outstanding Historic Interest.</li> <li>◆ Maintaining the integrity and setting of Cyfarthfa Castle and associated Registered Park and Garden and Aberfan Cemetery - Garden of Remembrance and Former Tip and Slide area.</li> <li>◆ Protecting the setting and character of 'character areas' and conservation areas.</li> <li>◆ Maintaining traditional field boundaries and habitats.</li> <li>◆ Preserving views from promoted routes such as the Taff Trail.</li> </ul>	<p>18. To protect and enhance the quality of designated areas of landscape value and good quality townscapes.</p> <p><i>See SA objective 7 above.</i></p>	<ul style="list-style-type: none"> <li>◆ Is the option likely to have an effect on nationally or locally designated sites or features and or their settings and key views to and from features including open natural skylines, open hill slopes and site lines of key views?</li> <li>◆ Would the option result in loss of trees, woodland, hedgerows, field patterns or valued landscapes?</li> <li>◆ Which settlements in the County Borough would most likely be effected by change and what is that change likely to be as a result of the option?</li> <li>◆ Is the option likely to have an effect on the identity of any communities or result in coalescence?</li> </ul>

**Table 5.3: SA indicators and targets**

Sustainability Appraisal Objective	Indicator	Target Trend	Data Source
1. To ensure that the community and social infrastructure needs of all residents and communities are met.	Percentage of people satisfied with their ability to get to/ access the facilities and services they need.	Increased percentage	National Indicator for Wales Number 24. <a href="http://gov.wales/docs/desh/publications/161115-national-indicators-for-wales-technical-document-en.pdf">http://gov.wales/docs/desh/publications/161115-national-indicators-for-wales-technical-document-en.pdf</a>
2. To maintain and enhance community and settlement identities.	Percentage of people agreeing that they belong to the area; that people from different background get on well together; and that people treat each other with respect.	Increased percentage	National Indicator for Wales Number 27. <a href="http://gov.wales/docs/desh/publications/161115-national-indicators-for-wales-technical-document-en.pdf">http://gov.wales/docs/desh/publications/161115-national-indicators-for-wales-technical-document-en.pdf</a>
3. To support a sustainable level of population growth.	Population projections (every three years).  Population estimates (annual).	Maintain and sustainably increase.  (2015: 59,324)	Source: <a href="https://statswales.gov.wales/Catalogue/Population-and-Migration/Population/Projections/Local-Authority">https://statswales.gov.wales/Catalogue/Population-and-Migration/Population/Projections/Local-Authority</a>  Source: <a href="https://statswales.gov.wales/Catalogue/Population-and-Migration/Population/Estimates/Small-Area">https://statswales.gov.wales/Catalogue/Population-and-Migration/Population/Estimates/Small-Area</a>
4. To improve human health and well-being and reduce inequalities.	Sufficiency of open space by type and ward.	Improve the sufficiency for each type of open space in each Ward.	Annual open space strategy monitoring. Merthyr Tydfil CBC Planning & Countryside Dept. To be reported from 2017 in the Merthyr Tydfil Local Development Plan Annual Monitoring Report. <a href="http://www.merthyr.gov.uk/resident/planning-building-control/local-development-plan/">http://www.merthyr.gov.uk/resident/planning-building-control/local-development-plan/</a>
5. To meet the housing needs of all through a mix of dwelling tenures and types.	Housing Land Availability in Years.	A minimum 5 year supply.	To be reported from 2017 in the Merthyr Tydfil Local Development Plan Annual Monitoring Report. <a href="http://www.merthyr.gov.uk/resident/planning-building-control/local-development-plan/">http://www.merthyr.gov.uk/resident/planning-building-control/local-development-plan/</a>
6. To improve the overall quality and energy efficiency of the housing stock.	Energy Company Obligation measures installed.  Percentage of dwellings with a	Increase  Increase	Source: <a href="https://www.gov.uk/government/collections/household-energy-efficiency-national-statistics">https://www.gov.uk/government/collections/household-energy-efficiency-national-statistics</a>  National Indicator for Wales Number 33.

	Standard Assessment Procedure (SAP) rating of 65 or above (Only at an all Wales level).		<a href="http://gov.wales/docs/desh/publications/161115-national-indicators-for-wales-technical-document-en.pdf">http://gov.wales/docs/desh/publications/161115-national-indicators-for-wales-technical-document-en.pdf</a>
7. To enhance the attractiveness of the County Borough to support economic development.	Regional Gross Value Added per Head and per Head Indices (Central Valleys Region).	Increase	Source: <a href="http://web.ons.gov.uk/ons/data/dataset-finder/-/q/dcDetails/Economic/RegGVA02?p_auth=Z5z8K8l1&amp;p_p_lifecycle=1&amp;_FOFlow1_WAR_FOFlow1portlet_dataset_navigation=datasetCollectionDetails">http://web.ons.gov.uk/ons/data/dataset-finder/-/q/dcDetails/Economic/RegGVA02?p_auth=Z5z8K8l1&amp;p_p_lifecycle=1&amp;_FOFlow1_WAR_FOFlow1portlet_dataset_navigation=datasetCollectionDetails</a>
8. To reduce the need to travel and encourage sustainable modes of transport.	In the last three months, how frequently have you walked for more than 5 minutes as a means of transport?	Increase	National Survey for Wales: Active Travel (Collected biennially) <a href="https://statswales.gov.wales/Catalogue/National-Survey-for-Wales/2014-15">https://statswales.gov.wales/Catalogue/National-Survey-for-Wales/2014-15</a>
9. To ensure essential utilities and infrastructure are available to meet the needs of all.	Index of Electricity, Gas and Water supply by quarter and area (Only at an all Wales level).	Maintain	Stats Wales <a href="https://statswales.gov.wales/Catalogue/Business-Economy-and-Labour-Market/Economic-Indices/Indices-of-Production-and-Construction/indexofelectricitygasandwatersupply-by-quarter-area">https://statswales.gov.wales/Catalogue/Business-Economy-and-Labour-Market/Economic-Indices/Indices-of-Production-and-Construction/indexofelectricitygasandwatersupply-by-quarter-area</a>
10. To minimise energy use and optimise opportunities for renewable energy generation.	Sub-national total final energy consumption data.  Planning permissions for Renewable Energy Generation	Reduce  Monitor	Source: <a href="https://www.gov.uk/government/collections/total-final-energy-consumption-at-sub-national-level">https://www.gov.uk/government/collections/total-final-energy-consumption-at-sub-national-level</a>  Taken from Development Management Quarterly Survey: <a href="http://gov.wales/topics/planning/planningstats/development-management-quarterly-survey/?lang=en">http://gov.wales/topics/planning/planningstats/development-management-quarterly-survey/?lang=en</a>
11. To minimise the contribution to climate change whilst maximising resilience to it.	Local Authority CO2 emissions.  Levels of nitrogen dioxide (NO2) pollution in the air.	Decrease  Decrease	Source: <a href="https://www.gov.uk/government/collections/uk-local-authority-and-regional-carbon-dioxide-emissions-national-statistics">https://www.gov.uk/government/collections/uk-local-authority-and-regional-carbon-dioxide-emissions-national-statistics</a>  National indicator for Wales Number 4. <a href="http://gov.wales/docs/desh/publications/161115-national-indicators-for-wales-technical-document-en.pdf">http://gov.wales/docs/desh/publications/161115-national-indicators-for-wales-technical-document-en.pdf</a>
12. To maintain and enhance biodiversity and ecosystem connectivity.	Area of healthy ecosystems in Wales.	Increase	National Indicator for Wales Number 43. <a href="http://gov.wales/docs/desh/publications/161115-national-indicators-for-wales-technical-document-en.pdf">http://gov.wales/docs/desh/publications/161115-national-indicators-for-wales-technical-document-en.pdf</a>

13. To minimise the demand for water and improve the water environment.	Percentage of surface water bodies and groundwater bodies achieving good or high overall status under the Water Framework Directive.	<ul style="list-style-type: none"> <li>◆ Maintain quantitative status as good.</li> <li>◆ Improve chemical status from poor.</li> <li>◆ Improve from moderate to Good.</li> </ul>	<p>National Indicator for Wales Number 45.  <a href="http://gov.wales/docs/desh/publications/161115-national-indicators-for-wales-technical-document-en.pdf">http://gov.wales/docs/desh/publications/161115-national-indicators-for-wales-technical-document-en.pdf</a>  <a href="http://waterwatchwales.naturalresourceswales.gov.uk/en/">http://waterwatchwales.naturalresourceswales.gov.uk/en/</a>                      Natural Resource Wales Habitat survey:  <a href="http://jncc.defra.gov.uk/page-4258">http://jncc.defra.gov.uk/page-4258</a></p>
14. To minimise the risk of flooding.	<ul style="list-style-type: none"> <li>• Total number of properties (residential and non-residential) at risk of fluvial flooding up to the 0.1% annual probability flood event.</li> </ul>	Reduce	<p>National Indicator for Wales Number 32.                      Arc GIS analysis from the Local Land Use Gazetteer and  <a href="https://www.naturalresources.wales/our-evidence-and-reports/maps/flood-risk-map/?lang=en">https://www.naturalresources.wales/our-evidence-and-reports/maps/flood-risk-map/?lang=en</a></p> <p>Reported in: Merthyr Tydfil Local Development Plan Annual Monitoring Report.  <a href="http://www.merthyr.gov.uk/resident/planning-building-control/local-development-plan/">http://www.merthyr.gov.uk/resident/planning-building-control/local-development-plan/</a></p>
15. To protect and conserve soil and safeguard mineral resources.	The area of land (ha) granted planning permission for new development on previously developed land during the year.	Monitor	<p>Taken from Development Management Quarterly Survey:  <a href="http://gov.wales/topics/planning/planningstats/development-management-quarterly-survey/?lang=en">http://gov.wales/topics/planning/planningstats/development-management-quarterly-survey/?lang=en</a></p>
16. To protect and enhance of heritage assets that defines the County Borough as the most significant Welsh town of the Industrial Revolution.	Percentage of scheduled monuments in Wales that are in a stable or improving condition or listed buildings that are neither 'vulnerable' nor 'at risk'.	Increase	<p>National Indicator for Wales Number 40.  <a href="http://gov.wales/docs/desh/publications/161115-national-indicators-for-wales-technical-document-en.pdf">http://gov.wales/docs/desh/publications/161115-national-indicators-for-wales-technical-document-en.pdf</a></p>
17. To facilitate services and facilities that support distinctive local culture and the Welsh language.	Percentage of people who speak Welsh daily and can speak more than just a few words of Welsh.	Increase	<p>National Indicator for Wales Number 36.  <a href="http://gov.wales/docs/desh/publications/161115-national-indicators-for-wales-technical-document-en.pdf">http://gov.wales/docs/desh/publications/161115-national-indicators-for-wales-technical-document-en.pdf</a></p>
18. To protect and enhance the quality of designated areas of landscape value and good quality townscapes.	Developments granted planning permission which harm landscape or townscape character.	Monitor	<p>Merthyr Tydfil Local Development Plan Annual Monitoring Report.  <a href="http://www.merthyr.gov.uk/resident/planning-building-control/local-development-plan/">http://www.merthyr.gov.uk/resident/planning-building-control/local-development-plan/</a></p>

Table 5.4: Sites SA Framework

Topic	SA Objective	Significance criteria, including any assumptions, uncertainties standards and thresholds for SA of Site Options		
<b>Communities (incl. Population)</b>	1. To ensure that the community and social infrastructure needs of all residents and communities are met.	<p>SA Objective 1 relates to the capacity of social and community infrastructure to accommodate communities' sustainable access to the services and facilities they require to meet their needs.</p> <p>The SA assumes that any proposal for development can make appropriate and timely provision or contributions for necessary supporting infrastructure, including community facilities and services.</p> <p>The nature and significance of the effects against this SA Objective will relate to the <b>distance of the site from existing services/ facilities</b>, including schools (primary and secondary), libraries, GP surgery/medical centres, post offices, community centres and retail provision.</p> <p><b>Evidence Base:</b> The Council's site assessment process will be used to inform the assessment of effects against this SA Objective. Reasonable walking distance is informed by the <i>Department for Transport (2007) Manual for Streets</i> (Department for Transport, 2007).</p>	++	The site option is located within reasonable walking distance (within 800m) of all key services and facilities.
			+	The site option is located within reasonable walking distance (within 800m) of most of the key services and facilities.
			0	A neutral effect is not considered possible.
			?	There is an element of uncertainty, most likely until lower level assessments have been carried out through planning applications.
			-	The site option is located beyond reasonable walking distance (over 800m) of most of the key services and facilities.
			--	The site option is located beyond reasonable walking distance (over 800m) of all key services and facilities.
	2. To maintain and enhance community and settlement identities.	<p>SA Objective 2 relates to the impact of a development proposal on the character and identity of a community.</p> <p>The nature and significance of the effects against this SA Objective will relate to the magnitude of change. For instance would the proposal, alone or in combination, lead to the coalescence of settlements or significantly change the characteristics of a community? It assumes high quality of design.</p> <p><b>Evidence base:</b> ArcGIS will enable the identification of the scale of change a community could expect if the site option (s) were selected.</p>	++	Development would support the character and identity of a community area experiencing Multiple Deprivation by enabling it to grow sustainably.
			+	Development would support the character and identity of a community by enabling it to grow sustainably.
			0	A neutral effect is not considered possible
			?	N/A
			-	Development would lead to a significant change in the character of the community



			--	Development would lead to the coalescence of settlements or an existing community to be subsumed by new development.
	3. To support a sustainable level of population growth.	Assuming sufficient sites have been nominated for inclusion in the LDP, SA objective3 is not a differential at the site options stage.		
Health and Equalities	4. To improve human health and well-being and reduce inequalities.	<p>SA Objective 4 relates to the built environment's contribution to healthy and active lifestyles, and any disparities in provisions across the Plan area.</p> <p>The nature and significance of the effects against this SA Objective will relate to the <b>provision of development in deprived areas and access to existing good quality open/recreational space and sports/leisure facilities.</b></p> <p>The SA assumes that any proposal for development can make appropriate and timely provision or contributions for necessary supporting infrastructure, including health, and green infrastructure.</p> <p>The appraisal narrative will note if there are any potential issues at site options with regard to the compatibility of surrounding land uses. It will also identify where mitigation may overcome any identified potential negative effects.</p> <p><b>Evidence base:</b> The open space strategy identified sufficiency standards for access to open space. The Welsh index of Multiple Deprivation identifies communities experiencing Multiple Deprivation.</p> <p>The Council's site assessment process will be used to inform the assessment of effects against this SA Objective. Reasonable walking distance is informed by TAN 16: <i>Sport, Recreation and Open Space.</i></p>	++	The site option is located within reasonable walking distance (within 400m) to sufficient amounts of open/recreational space or sports/leisure facilities <b>and</b> will deliver new development in an area of higher deprivation.
			+	The site option is located within reasonable walking distance (within 400m) of most of the open/recreational space or sports/leisure facilities <b>or</b> will deliver new development in an area of higher deprivation.
			0	A neutral effect is not considered possible.
			?	There is an element of uncertainty, most likely until lower level assessments have been carried out through planning applications.
			-	The site option is located beyond reasonable walking distance (over 400m) to existing open/recreational space or sports/leisure facilities and would be located in an area deficient in open space.
			--	Development at the site option would result in a net loss of open/recreational space, and / or sports/leisure facilities, in an area already deficient in open space.

Housing	5. To meet the housing needs of all through a mix of dwelling tenures and types.	<p>SA Objective 5 primarily relates to the provision of an appropriate quantity of housing to meet the needs of all residents and communities in Plan area.</p> <p>This SA objective assumes that development at any of the site options could provide an appropriate mix of housing types and tenures.</p> <p>The nature and significance of the effects against this SA Objective will relate to the potential <b>capacity of the site to accommodate residential development</b>.</p> <p><b>Evidence base:</b> The Council's site assessment process, in particular the proposed use and estimated housing capacity of the site, will inform the assessment of effects against this SA Objective.</p>	++	The site option has the potential to provide a significant amount of new housing (50 dwellings or more)
			+	The site option has the potential to provide new housing (less than 50 dwellings)
			0	If no housing is being proposed as part of development, as it is an employment site option, then it is considered to have a neutral effect against this SA Objective
			?	There is an element of uncertainty as the capacity of the site option for housing development is unknown
			-	Not applicable.
			--	Not applicable.
	6. To improve the overall quality and energy efficiency of the housing stock.	<p>SA objective 6 relates to the quality and energy efficiency of the housing stock, which, in new development, is largely regulated by building control.</p> <p>This SA objective assumes that development at any of the site options could be delivered to a high quality.</p> <p>The nature and significance of the effects against this SA Objective will primarily relate to specific sites and will not be a differential at the site options stage.</p>		
Economy & Employment	7. To enhance the attractiveness of the County Borough to support economic development.	SA objective 7 assumes that any proposal for development will be designed responsibly and relates to significant interventions to attract new job creating investment in <b>any</b> sector. This objective is not a differential at the site options stage.		

<b>Connections (incl. Transport and Movement)</b>	<p>8. To reduce the need to travel and encourage sustainable modes of transport.</p>	<p>The nature and significance of the effects against SA Objective 8 will primarily relate to <b>existing access to active travel train or bus routes and proposed enhancements</b>. In particular to better connect residential areas with the Town Centre and to connect Merthyr Tydfil and Aberdare via the Aberrant Tunnel and the wider region.</p> <p>For the purposes of the SA, identified active travel routes are those identified in the <i>Active Travel existing Routes Map (2016)</i>.</p> <p>A key aspect of encouraging walking and cycling is that routes need to be direct and accessible. Taking this into account, for the purposes of the SA a reasonable distance to these key walking and cycling routes is considered to be within 100m.</p> <p>Distances will be measured using a buffer zone of the set reasonable walking distance calculated from the site boundary within ArcGIS. It is recognised however that the distance by buffer zone is not the only aspect to consider in accessibility, and as such the narrative will note if potential barriers to movement or poor quality infrastructure is likely to restrict the potential use of the mode. The SA assumes that development at any of the site options could potentially provide or contribute to improved access to active travel routes.</p> <p>The SA assumes that larger strategic development options have greater potential for enhancements to existing infrastructure and services/provisions.</p> <p><b>Evidence base:</b> ArcGIS shapefiles and evidence gathered to support the identification of existing Active Travel routes (2016).</p>	++	The site option is within reasonable walking distance to a train station (800m), bus stop (400m) with a frequent service (every half hour) and or a reasonable distance (100m) to an active travel route or a key pedestrian or cycling route and offers the potential to enhance the sustainable travel network.
			+	The site option is within reasonable walking distance (100m) without impediment to an active travel or a key pedestrian or cycling route.
			0	A neutral effect is not considered possible.
			?	There is an element of uncertainty, for example the connectivity of the route is questionable or unknown, until more detailed assessments have been completed e.g. topography.
			-	The site option is not within reasonable walking distance to a train station (800m), bus stop (400m) with a frequent service (every half hour) and or a reasonable distance (100m) to an active travel route or a key pedestrian or cycling route or is within reasonable walking distance but is impeded by topography or barriers.
			--	The site option is not within reasonable walking distance to a train station (800m), bus stop (400m) with a frequent service (every half hour) and or a reasonable distance (100m) to an active travel route or a key pedestrian or cycling route and would hinder improvements to the connectivity of the active travel route network.

	9. To ensure essential utilities and infrastructure are available to meet the needs of all.	<p>SA Objective 9 relates to the capacity of infrastructure to accommodate the distribution of population and housing growth.</p> <p>The SA assumes that any proposal for development can make appropriate and timely provision or contributions for necessary supporting infrastructure, including utilities services.</p> <p>The nature and significance of the effects against this SA Objective will relate to whether headroom exists within the electricity network, water provision, waste and water disposal networks, gas network and broadband network.</p> <p><b>Evidence base:</b> Consultation responses and advice from:</p> <ul style="list-style-type: none"> <li>• Dwr Cymru Welsh Water</li> <li>• Western Power Distribution</li> <li>• Wales and West Utilities</li> <li>• BT Openreach</li> <li>• Merthyr Tydfil Council Waste Management</li> </ul>	++	Sufficient infrastructure headroom exists in all utilities and connections are straight forward
			+	There will be sufficient infrastructure headroom in all utilities during the plan period although connections to at least one utility will require phasing and or a significant developer contribution.
			0	A neutral effect is not considered possible.
			?	There is an element of uncertainty, most likely until more detailed assessments have been carried out through planning applications
			-	The provision of headroom is reliant on efficiencies in the network outside the direct control of the utilities provider.
			--	It is unlikely that sufficient headroom will be available in the plan period or the development contribution required to upgrade a network is likely to make the site unviable.
Energy	10. To minimise efficiency use and optimise opportunities for renewable energy generation.	<p>SA Objective 10 relates to the potential for the site option to contribute to the delivery of renewable energy and assumes that all new development can meet policy targets for energy efficiency, using sustainable construction methods and could promote building form and layout that aids adaptation.</p> <p>It is assumed that all site options have the potential for neutral effect against SA Objective 10, and this SA Objective will not be a key differentiator between site options.</p>	++	The site is promoted for the generation of renewable and low carbon energy.
			+	The site is not promoted for renewable or low carbon energy but has clear potential to integrate with renewable technologies.
			0	A neutral effect is not considered possible.

		The nature and significance of the effect will relate to the proposed use of the site and, for sites not proposed for renewable energy generation, whether there is the potential for the site to contribute to renewable / low carbon energy production.	?	The site is not promoted for renewable or low carbon energy and it is unclear whether it has the potential to support renewable technologies.
		The SA does not consider the impact of incorporating renewable energy within development on a sites financial viability. Where practical constraints to the delivery of renewable and low carbon energy are identified these will be noted.	-	The site is not promoted for renewable or low carbon energy and practical constraints has clear potential to integrate with renewable technologies.
		<b>Evidence base:</b>  The Council has commissioned a Renewable and Low Carbon Energy Assessment which will identify opportunities. Other considerations include topography and whether any other constraints exist.	--	The site is not promoted for renewable or low carbon energy and would hamper an opportunity for the development of renewable and low carbon energy generation.
Climate change	11. To minimise the contribution to climate change whilst maximising resilience to it.	SA objective 11 relates to the capacity of the site to support adaptation to the predicted effects of climate change. In particular will the option allow sufficient access to open spaces and shade away from microclimates? Others predicted impacts most closely related to the selection of development sites are:  1. Changes in soil conditions, biodiversity and landscape due to warmer, drier summers (see SA objectives 12 & 18 below). 2. Changes in species including a decline in native species, changes in migration patterns and increases in alien and invasive species (see SA objective 12 below). 3. Reductions in river flows and water availability during the summer, affecting water supplies and the natural environment. 4. Increases in flooding, affecting people, property and infrastructure.	++	The site is entirely brownfield and will not result in the loss of any greenfield or agricultural land.
			+	The majority of the site is brownfield land and will not result in the loss of best and most versatile agricultural land.
			0	A neutral effect is not considered possible.
			?	An element of uncertainty exists for all sites until more detailed lower level surveys and assessment have been carried out through planning applications.

		<p>The nature and significance of effects against this SA Objective will relate to the potential for the development site to allow sufficient access to open spaces and shade away from microclimates through the provision of green infrastructure and planting of trees.</p> <p>If the evidence suggests that such access may be a significant issue this will be noted within the summary appraisal narrative.</p> <p><b>Evidence base:</b> Evidence from the Council's Candidate sites register and observations of the Council officers.</p>	-	The majority of the site is greenfield and does not contain any best and most versatile agricultural land.
			--	Development at the site option could result in the loss of best and most versatile agricultural land.
<b>Biodiversity, Flora and Fauna</b>	12. To maintain and enhance biodiversity and ecosystem connectivity.	<p>SA Objective 12 relates to existing identified biodiversity assets, and ecological corridors that provide strategic connectivity for biodiversity.</p> <p>The nature and significance of effects against this SA Objective will primarily relate to potential <b>effects on biodiversity</b>. Is the site within, adjacent to, or in close proximity (200m) to any nationally designated biodiversity (SSSIs, NNRs)?</p> <p>Is the site within, adjacent to, or in close proximity (200m) to any biodiversity sites designated as being of local importance (Local Wildlife Site, Local Nature Reserve)?</p>	++	Development at the site option will deliver biodiversity gains, or improve ecological corridors / connections to a designated site (SSSI, LNR), or development will address a significant existing sustainability issue relating to biodiversity.
			+	Development will not lead to the loss of an important habitat, species, trees and hedgerows or hamper ecological connectivity (SINCs identified / LBAP and there are potential opportunities to enhance biodiversity.

		<p>Would development at the site result in the loss or fragmentation of important habitats or Green Infrastructure for biodiversity as identified in the SINC and Local Biodiversity Action Plan (2014)?</p> <p>It is recognised that when considering the potential for effects on designated biodiversity, distance in itself is not a definitive guide to the likelihood or severity of an impact. The appraisal commentary will try to note any key environmental pathways that could result in development potentially having a negative effect on designated biodiversity that may be some distance away.</p> <p>The capacity of the site to accommodate housing and employment development will also influence the judgements made in terms of the nature and significance of effects against this SA Objective.</p> <p>Are there opportunities to enhance biodiversity? Possibly improve connectivity, green/blue infrastructure or enhance an important habitat?</p> <p><b>Evidence base:</b> Analysis of ArcGIS map layers, Countryside and Biodiversity officers input and the Nature Conservation Strategy will inform the assessment of effects against this SA Objective.</p>	0	<p>Developments at the site is not likely to have negative effects on any nationally or locally designated biodiversity or contributes towards a severance of green and blue infrastructure or impede the migration of biodiversity. Potential for a neutral effect.</p> <p>Or</p> <p>Development at the site has the potential for negative effects on sites designated as being of local importance. Mitigation possible, potential for a residual neutral effect.</p>
			?	<p>Element of uncertainty exists until more detailed lower level surveys and assessments have been carried out.</p>
			-	<p>Development at the site option has the potential for negative effects on sites designated as being of local importance, or will lead to the loss of important habitats or fragmentation/severance of the connectivity of ecological corridors as identified as SINC / Green Infrastructure.</p> <p>or</p> <p>Development at the site has the potential for negative effects on nationally designated sites Mitigation possible, potential for a minor residual negative effect.</p>
			--	<p>Development at the site has the potential for negative effects on a nationally designated site.</p> <p>Mitigation difficult and / or expensive, potential for a major residual negative effect.</p>

<b>Water: Resources, Quality and Flooding</b>	<i>Water resource availability – See SA objective 9 above.</i>			
	13. To minimise the demand for water and improve the water environment.	<p>SA Objective 13 relates to the water efficiency of new development, and its potential effects on water quality.</p> <p>The SA assumes that development at any of the sites can incorporate aspirational water efficiency measures and that any proposal. The appraisal summary narrative will note if water intensive development is being proposed at the site option.</p> <p>The appraisal will focus on the potential offered by the site to improve the quality of water leaving the site (outside the Waste Water system).</p> <p>This will focus on the opportunity for the incorporation of Sustainable Drainage Systems (SDS). It is recognised that ground conditions and contamination have a large effect on the quality of water (see SA objective 15 below).</p> <p><b>Evidence base:</b> ArcGIS will be used to consider the relationship of site options with watercourses and bodies of water such as ponds and whether they are in areas identifies as not having ‘good’ status under the Water Framework Directive. It will also consider the topography of the site to determine the likelihood that SDS are appropriate.</p>	++	Development has clear opportunities for SDS and that development at the site option will lead to significant positive effects on water quality leading to ‘good’ status.
			+	Development has clear opportunities for SDS and that development at the site option will lead to positive effects on water quality in an area already meeting ‘good’ status.
			0	The site option is unlikely to lead to any significant effects on water quality, or that appropriate mitigation is in place to reduce negative effects with the potential for a residual neutral effect.
			?	There is an element of uncertainty; most likely until further detailed assessment work has been carried out.
			-	Development has no clear opportunity for SDS and, the site option may lead to minor negative effects on water quality, although satisfactory mitigation is identified.
			--	Development has no clear opportunity for SDS, will lead to major negative effects on water quality and no satisfactory mitigation is identified.
	14. To minimise the risk of flooding.	SA Objective 14 relates to existing areas of flood risk within the plan area. The nature and significance of effects against this SA Objective will therefore relate to whether a site option is located within an area of <b>flood risk</b> (from all sources) or has the potential to reduce flood risk.	++	The site option is not located within any area of flood risk and there is evidence that development at the site option could offer an opportunity to reduce flood risk elsewhere.



		<b>Evidence base:</b> Analysis in ArcGIS using NRW Flood Map for Planning and Risk of Flooding from Surface Water and the Council’s Flood Risk Management Plan will be used to inform the assessment of effects against this SA Objective.	+	The site option is not located within an area of flood risk and is not at risk of surface water flooding.
			0	The site option is located partially within an area of flood risk, or at risk of surface water flooding in parts of the site. However, development could avoid this area, or suitable mitigation is available, with the potential for a residual neutral effect.
			?	There is an element of uncertainty until more detailed lower level surveys and assessments have been carried out.
			-	The site option is located partially within an area of flood risk, or at risk of surface water flooding in parts of the site. The areas of flood risk would be difficult to avoid, and mitigation is likely to be expensive/ difficult.
			--	The site option is located predominantly within an area of flood risk and is at risk of surface water flooding. No clear opportunities for mitigation.
Air Quality	<p>See SA objective 8 above.</p> <p>Air quality within Merthyr Tydfil is closely linked to road traffic. This is demonstrated by the proposed designation of the AQMA on Twynyrodyn Hill where there is traffic congestion. Given the close relationship between traffic and air quality, the findings of the assessment under SA objective 8 are relevant to this topic. For example, positive effects against SA Objective 8 are likely to result in a positive indirect effect on air quality; equally, negative effects are likely to result in negative indirect effects on air quality.</p> <p>Mitigation provided through LDP policies and at the project level to reduce traffic impacts, such as improving access to sustainable transport modes will also help to mitigate impacts on air quality.</p>			

Minerals, Land and Soil	15. To protect and conserve soil and safeguard mineral resources.	<p>The nature and significance of the effect will relate to the land type and potential loss of previously undeveloped soil and the impact on safeguarded mineral resources.</p> <p><b>Evidence base:</b> Officers will use BMV and BGS safeguarding maps and site visits to determine whether the site proposal is on land where there is good soil or mineral resources worthy of safeguarding on the site and whether the potential resulting impact.</p> <p>There is little best and most versatile agricultural land in the County Borough.</p>	++	The site is entirely brownfield and will not hinder the future extraction of safeguarded minerals resources.
			+	The site is brownfield but would be reliant on the pre-extraction of mineral resources (for which there is no impediment).
			0	A neutral effect is not considered possible.
			?	An element of uncertainty exists until more detailed lower level surveys and assessment are undertaken.
			-	The site is brownfield but would be reliant on the pre-extraction of mineral resources (for which there are clear impediments) or the majority of the site is greenfield although acceptable mitigation for the loss of soil is identified.
			--	The majority of the site is greenfield and there is no clear mitigation for the impact on soil.
Waste		<p>See SA objective 9 above.</p> <p>SA Objective 3 relates to the capacity of infrastructure to accommodate the distribution of population and housing growth.</p> <p>The nature and significance of the effects against this SA Objective, in relation to Waste, will relate to whether headroom exists within the network of waste facilities to accommodate the site option.</p> <p><b>Evidence base:</b> Consultation responses and advice from Merthyr Tydfil County Borough Council’s Waste Management Department.</p>		

<b>Cultural Heritage (inc. Welsh Language) &amp; Historic Environment</b>	16. To protect and enhance heritage assets that defines the County Borough as the most significant Welsh town of the Industrial Revolution.	<p>The nature and significance of the effects in this instance will relate to <b>designated heritage assets</b> (Scheduled Monuments, Listed Buildings, Conservation Areas, Registered Parks and Gardens, and Areas of Archaeological Importance) and their setting. Any important non-designated heritage assets will be noted within the appraisal commentary.</p> <p>Are there any designated heritage assets or their setting, which could be affected within or adjacent to the site?</p> <p>Are there any opportunities to enhance heritage assets, such as: securing appropriate new uses for unused Listed Buildings; the removal of an eyesore could have a positive effect on the setting of designated assets; improved access and signage?</p> <p>It is considered that there is an element of uncertainty for all sites until more detailed lower level surveys and assessments have been carried out. Key conclusions will be noted in the appraisal.</p> <p><b>Evidence base:</b></p> <p>ArcGIS will provide a basis for consideration of the relationship between site proposals and assets. The Buildings at Risk survey provides a condition report for the stock of Listed Buildings. The advice of the Design and Built Heritage Officer and Glamorgan Gwent Archaeological Trust will inform the assessment of effects against this SA Objective.</p>	++	Development at the site option has the potential for a major positive effect on the significance / risk categorisation of a designated heritage assets and / or its setting.
			+	Development at the site option has the potential for minor positive effects as it may secure appropriate new uses for unused Listed Buildings and / or enhance the setting of, or access / signage to designated assets.
			0	Development at the site option will have no significant effect. This may be because there are no heritage assets within the influence of proposed development, or that mitigation measures are considered to reduce negative effects with the potential for a residual neutral effect.
			?	Not applicable – There is an element of uncertainty for all sites until more detailed lower level surveys and assessments have been carried out.
			-	Development has the potential for a residual minor negative effect on a Conservation Area; a Scheduled Monument; Listed Building; Registered Historic Park and Garden and/ or their setting.
			--	Development has the potential for a residual major negative effect on a Conservation Area, Scheduled Monument; Listed Building; Registered Historic Parks and Gardens and/ or their setting. Mitigation is likely to be difficult/ expensive.

	17. To facilitate services and facilities that support distinctive local culture and the Welsh language.	<p>The nature and significance of the effects in this instance will relate to <b>the potential for the site option to facilitate the uptake of the Welsh Language and encourage those who can converse in Welsh to do so.</b></p> <p>There are two Welsh primary schools in the County Borough (Santes Tudful (Penyard) &amp; Rhyd y grug (Aberfan) site options located within their catchments will be considered to have facilitated the uptake of the Welsh Language to a greater extent than those located outside the catchments. It is, however, recognised this is not a major differential. The Welsh Speaking Secondary School is in Aberdare.</p> <p><b>Evidence base:</b></p> <p>ArcGIS will enable the identification of site options in relation to the catchment areas of Welsh Language primary schools.</p>	++	N/A
			+	Development at the site option has the potential for minor positive effects because it is within the catchment of an existing Welsh language primary school.
			0	Development at the site option will have no significant effect because it is located outside the catchment of an existing Welsh language primary school.
			?	N/A
			-	N/A
			--	N/A
Landscape and Townscape (inc. Built Environment).	18. To protect and enhance the quality of designated areas of landscape value and good quality townscapes.	<p>SA Objective 18 relates to valued landscapes and townscapes, as well as features and assets that contribute to landscape and townscape character.</p> <p>The nature and significance of the effects against this SA Objective will relate to the <b>sensitivity of the landscape or townscape.</b></p> <p>The capacity of the site to accommodate housing and employment development will also influence the judgements made in terms of the nature and significance of effects against this SA Objective.</p> <p>It is considered that there is an element of uncertainty for all sites until more detailed lower level surveys and assessments have been carried out through planning applications.</p>	++	Development significantly enhances the landscape or removes a significant eyesore and/or would regenerate previously developed land and buildings (PDL) that is currently having a major negative effect on the landscape/ townscape.
			+	Development would remove an eyesore, or enhance the landscape and/or would regenerate PDL that is currently having a minor negative effect on the landscape/ townscape.
			0	A neutral effect is not considered possible.

		<p>The SA assumes that any trees protected by Tree Preservation Orders within a site option will be retained, unless there is evidence to suggest that this is not the case.</p> <p><b>Evidence base:</b> ArcGIS and Landmap will inform the expert consideration of this objective by the Landscape Architect.</p> <p>Consideration against the emerging SLAs, the Brecon Beacons National Park, Registered Landscape of Outstanding Historic Importance, emerging Iron Settlement work and the CADW Urban Characterisation Study.</p>	?	N/A – An element of uncertainty exists until more detailed lower level assessments have been carried out.
			-	The site option has medium sensitivity in landscape terms or is within the setting of the National Park or SLA or is located where the landscape or townscape character is well defined and mitigation through good design is likely.
			--	The site option has medium to high or high sensitivity in landscape terms and would conflict with the management objectives of a draft Special Landscape Area. Mitigation is likely to be difficult/ expensive. Potential for major residual negative effect.

## APPENDIX 1: Well-Being workshops and LDP Working Groups

Understanding Our Communities stakeholder workshops: Well being of Future Generations (Wales) Act 2015.									
Carers (inc. young carers and carers of older people)	Cultural wellbeing	Mental health (adults/children)	Environmental wellbeing	Older people (inc. dementia) and physical disability (inc. sensory impairment)	Economic wellbeing	Violence against women, domestic abuse and sexual violence	Learning disability (inc. autism)	Social wellbeing	Children and young people (inc. looked after children and children in need)
20/10/16	26/10/16	31/10/16	04/11/16	08/11/16	10/11/16	15/11/16	17/11/16	22/11/16	23/11/16
Social Services and Well-being Population Needs Assessment	Wellbeing of Future Generations Well-being Assessment	Social Services and Well-being Population Needs Assessment	LDP and Well-being of Future Generations Wellbeing Assessment	Social Services and Well-being Population Needs Assessment	Well-being of Future Generations Well-being Assessment	Social Services and Well-being Population Needs Assessment	Social Services and Well-being Population Needs Assessment	Well-being of Future Generations Well-being Assessment	Social Services and Well-being Population Needs Assessment
LDP Working Groups									
04/11/16	07/11/16	09/11/16	09/11/16	16/11/16	17/11/16				
LDP and Well-being of Future Generations Wellbeing Assessment	Population and Community Facilities	Housing/Viability	Heritage, Countryside and Leisure	Local Development Plan (LDP) Steering Group	Economic Development and Tourism				

APPENDIX 2: Natural Resources Wales response to the draft Scoping Report.



**Cyfoeth  
Naturiol  
Cymru  
Natural  
Resources  
Wales**

Ein cyf/Our ref: CAS-28543-K8P4  
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**FAO: Chris O'Brien**

Merthyr Tydfil County Borough Council  
Unit 5  
Triangle Business Park  
Pentrebach  
Merthyr Tydfil  
CF48 4TQ

25 January 2017

Annwyl Syr/Madam / Dear Sir/Madam,

**CONSULTATION ON THE DRAFT SCOPING REPORT FOR THE SUSTAINABILITY  
APPRAISAL OF THE 1ST REPLACEMENT MERTHYR TYDFIL LOCAL  
DEVELOPMENT PLAN**

Thank you for consulting us on your Draft Scoping Report for the Sustainability Appraisal of Merthyr Tydfil Replacement Local Development Plan.

We note the Sustainability Appraisal (SA) will incorporate your Strategic Environmental Assessment (SEA).

Having reviewed your Draft Scoping Report (v02 Draft for Environmental consultees) dated December 2016 and having met with your Authority on 16 January 2017, we are satisfied with your scope for the SA report (i.e. environmental report). As indicated in the scoping report, you have noted that the SA is an iterative and on-going process. We agree and would add that the SA/SEA should be a living document. This is particularly important when you consider that environmental baseline data is evolving and other plans and programmes are emerging as a result of new legislation. The SA/SEA should therefore be kept under review throughout the LDP preparation.

The baseline information to be collected appears to be thorough. We confirm that you have the latest Local Evidence Pack from NRW. In this regard, you should note that NRW have duties under the Environment Act (Wales) 2016 and the Well-being of Future Generations (Wales) Act 2015 which will result in the preparation of further evidence. This evidence should be used in the SA/SEA, if timeframes allow.

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Croeso i'r gohebiaeth yn y Gymraeg a'r Saesneg  
Correspondence welcomed in Welsh and English

The scope and methodologies proposed for the SA seem reasonable. The scope has identified the likely environmental characteristics effected by the LDP and recognises the existing environmental problems within the LDP area.

The SA objectives (within the strategic SA framework (table 5.2)) should provide a robust assessment of environmental impacts from the LDP strategic options. We advise that the SA indicators and targets (table 5.3) seem usable. We do advise that there is a change to SA Objective 14 (to minimise the risk of flooding). It currently states "Total number of properties...at high or medium risk of flooding from rivers" then bullet points the definition of medium and high risk. We suggest you simply use one bullet point which states "Total number of properties...at risk of fluvial flooding up to the 0.1% annual probability flood event". We note these are used in the national indicators for Wales technical document, however the 0.1% event equates to zone C in TAN15 and therefore this change would be consistent with national planning policy.

We will be happy to provide further advice and guidance in the latter stages of the SA/SEA process and look forward to working with you on the replacement LDP.

Yn gywir / Yours faithfully

**James Davies**

Uwch Ymgynghorydd Cynllunio Datblygu / Senior Development Planning Advisor  
Cyfoeth Naturiol Cymru / Natural Resources Wales



**O'Brien, Christopher**

---

**From:** Helen.May2@wales.gsi.gov.uk  
**Sent:** 03 February 2017 15:26  
**To:** O'Brien, Christopher  
**Subject:** RE: Consultation on the Draft Scoping Report for the Sustainability Appraisal of the 1st Replacement Merthyr Tydfil Local Development Plan. [NOT PROTECTIVELY MARKED]

Dear Mr O'Brien,

Thank you for your email inviting comments on the Draft Scoping Report for the Sustainability Appraisal of the 1st Replacement Merthyr Tydfil Local Development Plan. I am sorry for the delay in sending our response.

We have the following comments;

- Section 3.17.2 of the report refers to "2 Historic Landscape Character Areas" and should refer to "2 Registered Historic Landscapes".
- The Cultural Heritage section of Table 5.4 (Sites SA Framework) states that the advice of the Design and Built Heritage Officer will inform the assessment of effects against this SA Objective. We recommend that the Council should also consult Glamorgan Gwent Archaeological Trust as their archaeological advisors.

Yours sincerely,

Helen May  
Arweinydd Tim Gwaith Achosion/ Casework Team Leader  
Amgylchedd Hanesyddol / Historic Environment  
Gwasanaeth Amgylchedd Hanesyddol (Cadw)/ Historic Environment Service (Cadw)  
Llywodraeth Cymru / Welsh Government  
Plas Carew  
Uned/Unit 5/7 Cefn Coed  
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