

Integrated Sustainability Appraisal (ISA) for the Replacement Local Development Plan

Initial ISA Report

Vale of Glamorgan Council

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Introduction

1. Introduction

Background

- 1.1 AECOM is commissioned to lead on Integrated Sustainability Appraisal (ISA) in support of Vale of Glamorgan Council's (VOGC) Replacement Local Development Plan (RLDP). ISA fulfils the requirements and duties for Sustainability Appraisal (SA) and Strategic Environmental Assessment (SEA), Equalities Impact Assessment (EqIA), Health Impact Assessment (HIA), Welsh Language Impact Assessment (WLIA) and Well-being of Future Generations (WBFG).

ISA Explained

- 1.2 ISA is a mechanism for considering and communicating the likely effects of an emerging plan, and alternatives in terms of key sustainability issues. The aim of ISA is to inform and influence the plan-making process with a view to avoiding and mitigating negative impacts and maximising positive impacts. Through this approach, the ISA for the RLDP seeks to maximise the developing plan's contribution to sustainable development.
- 1.3 As identified above, the ISA seeks to fulfil the requirements and duties for SA, SEA, EqIA, HIA, WLIA and WBFG. The approach is to fully integrate these components to provide a single assessment process to inform the development of the RLDP. A description of each of the various components and their purposes is provided below.

Sustainability Appraisal (SA)

- 1.4 SA is undertaken to address the procedures prescribed by the Environmental Assessment of Plans and Programmes (Wales) Regulations 2004 (the SEA Regulations) which transpose into national law the EU Strategic Environmental Assessment (SEA) Directive. It also widens the scope of the assessment from focusing largely on environmental issues to further consider social and economic issues. SA is a legal requirement for Local Development Plans under Section 19(5) of the Planning and Compulsory Purchase Act 2004.
- 1.5 In line with the requirements of the SEA Directive, the two key steps in SA are that:
- When deciding on 'the scope and level of detail of the information' which must be included in the SA Report there is a consultation with nationally designated authorities concerned with environmental issues; and
 - A report (the 'SA Report') is published for consultation alongside the Draft Plan that presents an assessment of the Draft Plan (i.e. discusses 'likely significant effects' that would result from plan implementation) and reasonable alternatives.
- 1.6 The LDP Manual Edition 3 (2020) states that SA, incorporating SEA, plays an important part in demonstrating that the LDP is sound by ensuring that it reflects the legislative requirements and achieves sustainable development.

Equalities Impact Assessment (EqIA)

- 1.7 As a public-sector organisation, Vale of Glamorgan Council (VOGC) has a duty under the Equality Act 2010 and associated Public Sector Equality Duty (PSED) to ensure that the objectives and policy options within the RLDP avoid unlawful discrimination (direct and indirect), as well as advancing equality of opportunity and fostering good relations between those with protected characteristics and all others.
- 1.8 In March 2021 the Socio-economic Duty commenced, which compliments the Equalities Act and PSED by further contributing towards the country's long term well-being goals, in particular "A more equal Wales" and "A Wales of cohesive communities", further strengthening social partnership arrangements and advancing fair work ambitions.
- 1.9 An Equality Impact Assessment (EqIA) is often used by public sector organisations to demonstrate how this duty has been met.

Health Impact Assessment (HIA)

- 1.10 The Public Health (Wales) Act 2017 contains a provision to require a Health Impact Assessment (HIA) to be carried out to assess the likely effect of the proposed development plan on health and mental well-being and inequality. The HIA process provides a systematic yet flexible and practical framework that can be used to consider the wider effects of RLDP policies and how they, in turn, may affect people's health.

Welsh Language Impact Assessment (WLIA)

- 1.11 The Welsh Government is committed to supporting the Welsh language so that it can thrive and grow across Wales. The Welsh language must be considered from the outset of the development plan process. It is a legislative requirement that the SA must include an assessment of the likely effects of the plan on the use of the Welsh language (The Planning (Wales) Act 2015 (Section 11)).
- 1.12 Planning Policy Wales (PPW) (2021) sets the policy requirements for the Welsh language. Technical Advice Note 20: Planning and the Welsh Language provides guidance on the consideration of the Welsh language as part of the development plan process. The TAN provides advice on incorporating the Welsh language in development plans through the SA and the policy approach to anticipated windfall development. In summary, planning authorities must consider the likely effects of their development plans as part of the SA process and include a statement within the Deposit Plan on how this has been considered and/or addressed within the development plan. The ISA process is the mechanism for considering how the scale and location of growth, the vision, objectives, policies and proposals individually and in combination, impact on the Welsh language. Where evidence indicates a detrimental impact on the use of the Welsh language the LPA can assess whether the strategy should be amended, or mitigation measures should be identified.

Well-being of Future Generations (Wales) Act 2015

- 1.13 The Planning (Wales) Act 2015 sets out the definition of sustainable development for the planning system in Wales, mirroring the definition in the Well-being of Future Generations (Wales) Act 2015 (WBFGA).

“Sustainable development means the process of improving the economic, social, environmental and cultural well-being of Wales by taking action, in accordance with the sustainable development principle, aimed at achieving the well-being goals”.

1.14 The WBFGA sets seven well-being goals which all public bodies are required to achieve:

- A prosperous Wales.
- A resilient Wales.
- A healthier Wales.
- A more equal Wales.
- A Wales of cohesive communities.
- A Wales of vibrant culture and thriving Welsh language; and
- A globally responsible Wales.

1.15 The Act also identifies five ways of working which public bodies need to demonstrate they have carried out when undertaking their duty to achieve sustainable development. These are: involvement, collaboration, integration, prevention and long-term factors. The well-being goals and the five ways of working can be used to inform and structure the ISA framework.

The Initial ISA Report

1.16 This Initial ISA Report is published alongside the Preferred Strategy. Any representations received will be considered and a revised ISA Report will be published subsequently alongside the Deposit Plan.

2. What is the Preferred Strategy seeking to achieve?

- 2.1 VOGC is currently in the process of preparing the RLDP, which will replace the existing LDP and help shape the Vale of Glamorgan for the next 15 years (to 2036).
- 2.2 The RLDP will set out the vision, objectives, strategy and policies for managing development in the Vale of Glamorgan, and will contain a number of local planning policies. The RLDP will set out land use development proposals for the Vale, including for the purposes of housing, employment, retailing, recreation, transport, tourism, minerals, waste, and community uses.
- 2.3 The RLDP will also identify areas to be protected from development and provide policies against which future planning applications will be assessed. It will be prepared with regard to a wide range of legislation, policies and other initiatives at the European, national, regional and local level. The Local Well-Being Plan 'Our Vale – Our Future' (LWBP) will be of particular importance at the local level. The LWBP relates to the economic, social, environmental, and cultural well-being of the Vale of Glamorgan and has clear links with the RLDP where it relates to land use planning.

Vision

- 2.4 The vision established for the RLDP is set out below:

'By 2036:

The Council will have achieved its target of becoming zero carbon by 2030. It has adopted innovative techniques and efficient resource use to mitigate its impact on the environment, and exemplar zero carbon projects including schools and district heating networks have been implemented. Development of the Cardiff Capital Region Aberthaw Green Energy Park has established the Vale of Glamorgan as a regional hub for innovation in renewable and green energy and zero carbon manufacturing. All development within the Vale of Glamorgan is now built to the highest standards of environmental design and performance, incorporating measures to mitigate and adapt to the impacts of Climate Change.

The Vale of Glamorgan is a healthy and inclusive place for everyone, with equitable access to services and facilities both physically and digitally. Residents are proud of where they live and have access to the homes they need. Housing growth has delivered homes which caters for all, including affordable homes and older person's housing; contributing towards diverse and cohesive communities where residents can maintain their independence.

Through placemaking, places and spaces are safe, accessible and socially inclusive. Development respects local character and sense of place is valued by residents and contributes positively towards health and wellbeing. Positive improvements have been achieved in narrowing the disparities in the quality of life and health outcomes for residents living in the most deprived areas through

improved access to employment, education, training, services, and investment in the built environment.

The Vale enjoys a network of connected, multi-functional and accessible green and blue spaces, providing a range of enhanced leisure and health benefits within and between towns, villages, and the countryside. More residents participate in active and healthy lifestyles. Investment in green infrastructure has produced a net biodiversity benefit with the creation of new habitats, enhanced connectivity and Planting providing carbon storage and contributing towards Climate Change resilience and adaptation.

The Vale continues to be a place where the culture and diversity of people, and the unique qualities of its communities, are recognised and protected.

Placemaking supports a strong sense of community and has contributed to improving the quality of life for all generations. Residents and visitors have access to local facilities and inclusive places to meet and play. New development will have respected the local character of the Vale, protecting its outstanding and distinctive historic, natural and built environment. The important historic heritage of the Vale continues to be conserved and enhanced.

The Council's Growth and Regeneration Programme for Barry has successfully transformed the town. The town and local retail centres are vibrant places, while the new marina at Barry Waterfront and revitalised Barry Island provide all year-round tourism. A range of public realm schemes have enhanced the built and natural environment throughout the town.

The towns of Cowbridge, Llantwit Major and Penarth are vibrant and attractive sustainable service centres playing a vital role in providing a diverse range of services and facilities for their residents and those living in neighbouring villages. Town centres have adapted to reflect changes in retail behaviour and now function as multi use centres providing retail, leisure, recreation, community, and employment spaces.

Growth within rural settlements has provided for the needs of residents and supports balanced multigenerational communities that contribute to the vibrancy of the rural area. Through investment in active travel, public transport, and broadband connectivity the rural vale is a living and working countryside supporting a network of sustainable and thriving rural communities.

The delivery of the South East Wales Metro means that the Vale of Glamorgan is now well connected by an integrated transport system supporting economic growth. Communities have access to improved transport connectivity both locally and regionally, with economic and housing growth delivered sustainably to the benefit of communities. Enhanced active travel networks within and between towns and villages have created liveable and accessible neighbourhoods for residents linked to their surrounding rural settlements.

The Vale has a thriving local economy with a balanced, diversified business base. New employment growth at Bro Tathan and Cardiff Airport Enterprise Zones has attracted inward investment from knowledge-based and high-tech businesses, creating high quality employment and training. The Vale has a skilled and adaptable workforce. The delivery of strategic and local employment sites, alongside opportunities for rural businesses, agricultural diversification

and digital connectivity, has enabled existing businesses to grow and thrive and has contributed to a reduction in outward commuting.

Through strong investment in tourism, leisure, recreation and green infrastructure, the Vale of Glamorgan is an all-year-round tourist destination. Sensitive and sustainable management of its built and natural assets including the Heritage Coast, Country Parks, beaches, countryside and historic heritage has enabled tourism to flourish. The Vale attracts visitors from afar and tourism is an important source of local employment, investment, and an enabler of rural diversification.'

Objectives

2.5 The ten strategic objectives set out below expand the LDP vision into nine key themes for the Vale of Glamorgan. These Objectives not only reflect national Planning policy, but also the aspirations of the Council and key stakeholders and demonstrate how the RLDP will contribute towards addressing the issues identified.

- Objective 1 - Mitigating and Adapting to Climate Change
- Objective 2 - Improving Mental and Physical Health and Well-being
- Objective 3 - Homes for All
- Objective 4 - Placemaking
- Objective 5 – Protecting and Enhancing the Natural Environment
- Objective 6 - Embracing Culture and Heritage
- Objective 7 - Fostering Diverse, Vibrant, and Connected Communities
- Objective 8 - Promoting Active and Sustainable Travel Choices
- Objective 9 - Building a Prosperous and Green Economy
- Objective 10 – Promoting Sustainable Tourism

3. What is the scope of the ISA

Introduction

- 3.1 The aim here is to introduce the reader to the scope of the ISA, i.e. the sustainability issues/ objectives that should be a focus of (and provide a broad methodological framework for) the ISA.

Consultation on the scope

- 3.2 The Regulations require that “*When deciding on the scope and level of detail of the information that must be included in the Environmental Report [i.e. the SA scope], the responsible authority shall consult the consultation bodies*”. In Wales, the consultation bodies are Natural Resources Wales and Cadw. A Scoping Report was sent to the statutory consultees for comment from August to September 2022. The responses received were considered and amendments made to the baseline information and draft ISA Objectives where necessary. Since that time, the ISA scope has evolved as new evidence has emerged and there have been some minor refinements to the ISA objectives - however, the scope remains fundamentally the one agreed through the dedicated scoping consultation in 2022.
- 3.3 Further information on the scope of the ISA - i.e. a more detailed review of sustainability issues/ objectives as highlighted through a review of the sustainability ‘context’ and ‘baseline’ – is available to view separately via the Council’s website [here](#). This is given the iterative nature of the process, and these documents will be updated as necessary.

SA Objectives

- 3.4 Table 3.1 presents the ISA objectives - grouped under ten topic headings - established through scoping, i.e. considering context/baseline review, identified key issues and responses from statutory consultees.
- 3.5 Taken together, the ISA topics and objectives presented in Table 3.1 overleaf provide a methodological ‘framework’ for appraisal.

Table 3.1 ISA Framework

ISA topic	ISA objective
Economy and employment	<ul style="list-style-type: none"> Support a sustainable, diverse, and resilient economy, with innovative responses to changing conditions and support for a strong future workforce.
Population and communities	<ul style="list-style-type: none"> To provide enough good quality market and affordable homes, and community infrastructure, in sustainable locations to meet identified needs. To enhance design quality to create natural beautiful places for people that maintain and enhance community and settlement identity.
Health and wellbeing	<ul style="list-style-type: none"> To improve the health and wellbeing of residents within Vale of Glamorgan promoting healthy and sustainable places.
Equality, diversity and inclusion	<ul style="list-style-type: none"> To reduce poverty and inequality; tackle social exclusion and promote community cohesion.
Climate change	<ul style="list-style-type: none"> Support the resilience of Vale of Glamorgan to the potential effects of climate change, including flooding from fluvial, coastal and surface water sources. Reduce Vale of Glamorgan's contribution to climate change from activities which result in greenhouse gas emissions and contribute to meeting the Council's target of net zero.
Transport and movement	<ul style="list-style-type: none"> Increase sustainable transport use and reduce the need to travel
Natural resources	<ul style="list-style-type: none"> To identify and pursue any opportunities to reduce, or at least, minimise population exposure to air pollution. To make the best use of previously developed land and existing buildings to minimise pressure for greenfield development and protecting, where possible, higher grade agricultural land. To protect mineral resources and ensure that an adequate supply of a diverse range of minerals is available over the long-term. Support waste management. To conserve, protect and enhance the water environment, water quality and water resources.
Biodiversity and geodiversity	<ul style="list-style-type: none"> Protect and enhance biodiversity within and surrounding Vale of Glamorgan.
Historic environment	<ul style="list-style-type: none"> Preserve and enhance Vale of Glamorgan's heritage resource, including its historic environment and archaeological assets. Promote understanding of Vale of Glamorgan's cultural heritage.
Landscape	<ul style="list-style-type: none"> To protect and enhance the quality and character of Vale of Glamorgan's landscape, seascape and townscape.

Part 1: What has Plan Preparation/ ISA involved up to this point?

4. Introduction (to Part 1)

- 4.1 Formal preparation of the RLDP has been underway since June 2021, with a wide range of evidence produced to inform its development. Table 4.1 sets out the key RLDP and ISA Documents published along with dates for consultation. The RLDP documents and the evidence base (including the ISA Reports) can be viewed and downloaded on the Council's website.

Table 4.1 RLDP and ISA stages

RLDP Documents and Consultation	ISA Documents and Consultation
Adopted Local Development Plan Review Report (November 2021)	ISA Scoping Report (December 2022)
Pre-Deposit Plan (Preferred Strategy) (November 2023)	Initial ISA Report November 2023)

- 4.2 This part (Part 1) of the Initial ISA Report explores the process that has led to the Preferred Strategy document that is the focus of appraisal in Part 2 and currently published for consultation.
- 4.3 Specifically, in-line with regulatory requirements (Schedule 2 of the SEA Regulations), there is a need to explain how work was undertaken to develop and then appraise reasonable alternatives, and how the Council then considered appraisal findings when finalising the draft plan for publication. Part 1 of the report presents this information.

Structure of this part of the report

- 4.4 This part of the report is structured as follows:
- **Chapter 5** – explains the context and work undertaken to develop and establish reasonable alternatives at this stage.
 - **Chapter 6** – presents an appraisal of the identified reasonable alternatives; and
 - **Chapter 7** – explains reasons for selecting the Preferred Strategy.

5. Establishing the reasonable alternatives

Introduction

5.1 This chapter explains the evidence and work carried out at this stage to identify strategic options. To deliver the vision and objectives identified in Chapter 2, the Council explored how much growth (housing and employment) is required over the plan period (2021 to 2036) and where this growth could be located within the Vale. Each of these issues are discussed in turn below.

Level of growth

5.2 VOGC commissioned Edge Analytics to prepare a range of demographic, housing, and employment growth scenarios to inform the RLDP (2023). A total of twelve growth options were derived from a variety of sources, including Welsh Government population projections (four options), POPGROUP (PG) trend-based scenarios (three options), dwelling-led scenarios (two options), and employment-led scenarios (three options). Using these sources, population and household growth trajectories are presented for the Vale of Glamorgan, alongside annual net migration, housing, and employment needs (see Table 5.1 overleaf).

Table 5.1 Scenario outcomes, 2021-2036

Scenario	Change 2021-2036				Average per year		
	Population change	Population change %	Households change	Households change %	Net migration	Dwellings	Employment
Dwelling-led 5Y	19,048	13.9	10,062	16.9	1,360	698	493
PG-5Y	16,923	12.4	9,187	15.4	1,222	637	426
Employment-led ELR	13,224	9.8	7,599	12.9	1,020	527	341
WG-2018-HIGHPOP	13,127	9.7	7,500	12.7	938	520	292
Dwelling-led 10Y	13,154	9.7	7,587	12.8	1,009	526	325
Employment-led ELR (CR 1-1)	10,719	7.9	6,548	11.1	869	454	341
WG-2018	9,787	7.3	6,214	10.6	851	431	243
PG-Long Term	8,561	6.3	5,705	9.6	739	396	210
PG-10Y	8,519	6.3	5,695	9.6	741	395	197
WG-2018-LOWPOP	5,172	3.8	4,559	7.8	759	316	191
Employment-led OE	2,402	1.8	3,041	5.2	367	211	25
WG-2014	13	0.0	2,182	3.9	64	151	-126

5.3 As shown in Table 5.1 above, the annual housing need ranges from 151 dwelling per annum, under the Welsh Government 2014-based principal population projection, to 698 dwellings per annum, under the dwelling-led 5-year scenario. The closest scenario to a mid-point between the low and high growth scenarios is the Welsh Government 2018-based principal population projection, which delivers 431 dwellings per annum. Most options fall within a hundred more/ less dwellings than this mid-point.

5.4 The scenarios have been grouped into three options for low, medium, and high growth as follows:

- **Low growth:** 151 to 211 dwellings per annum, and a reduction of 125 jobs to an increase of 25 jobs per annum (WG-2014 and Employment-led OE scenarios).
- **Medium growth:** 316 to 527 dwellings per annum and 191 to 341 new jobs per annum (WG-2018-LOWPOP, PG-10Y, PG-Long Term, WG-2018, Employment-led ELR (CR 1-1), Dwelling-led 10Y, WG-2018-HIGHPOP, and Employment-led ELR scenarios).
- **High growth:** 637 to 698 dwellings per annum and 426 to 493 new jobs per annum, (PG-5Y and Dwelling-led 5Y scenarios).

Location of growth

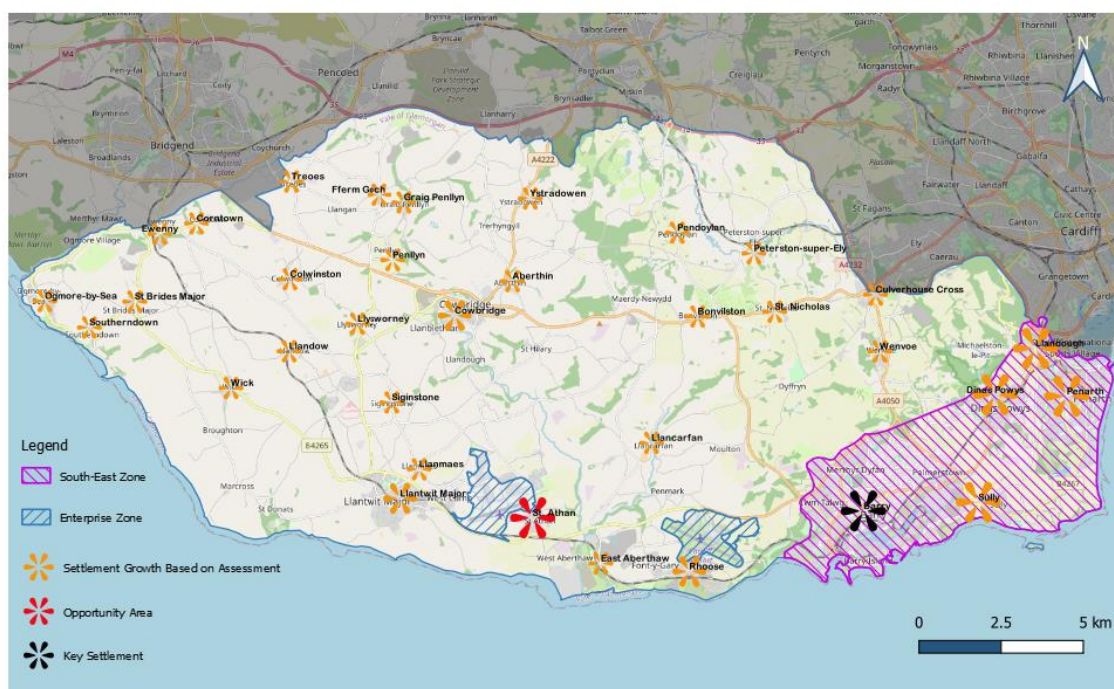
- 5.5 Having identified growth options, the next step was to consider how the level of growth could be appropriately distributed throughout the Vale.
- 5.6 A total of four alternative strategy options have been considered as part of the process, reflecting the issues facing the Vale of Glamorgan and the national and regional policy framework:
- Option 1 – Continuation of the adopted LDP Growth Strategy.
 - Option 2 – Dispersed Growth.
 - Option 3 – Focused Growth.
 - Option 4 – Sustainable Transport Oriented Growth.
- 5.7 The four options are set out overleaf in Figures 5.1 – 5.4, with further detail provided with the Spatial Options Background Paper. The Background Paper considers the advantages and disadvantages of each spatial option including the compliance of each spatial option with Future Wales. Key issues recognised as an integral part of any spatial strategy for the Vale include:
- Utilising previously developed land before greenfield sites in the first instance.
 - Addressing climate change through mitigation and adaptation.
 - Promoting placemaking principles.
 - Promoting sustainable transport and modal shift.
 - Maximising opportunities for green infrastructure enhancement.
 - Responding to the nature emergency through biodiversity net benefit.
- 5.8 The four alternative spatial options are all considered to be realistic but would result in different distributions of growth for housing and other forms of development (see Figure 5.1 – 5.4 overleaf).
- 5.9 Option 1 (Continuation of the adopted LDP Growth Strategy) presents an opportunity for all towns and villages to grow, with growth distributed proportionally according to the number of residential properties. Under Option 1, 90% of growth would be directed to the ten largest settlements, with greatest of growth being directed to Barry (41.85%) and Penarth (18.25%).
- 5.10 For Option 2 (Dispersed Growth), as above, the largest settlements in the Vale would deliver most of the growth. A smaller proportion of growth would then go to the larger villages with sustainability credentials. There would only be very limited growth in smaller villages and rural areas.
- 5.11 Under Option 3 (Focused Growth), growth would also be directed to the larger towns and villages but would also provide opportunity to distribute growth to other rural villages offering opportunities for sustainable growth. Option 3 categorises towns and villages according to an assessment of existing services and facilities, including public transport accessibility and proximity to employment areas and key services such as retail centres, schools, and health care. Growth is then assigned to each settlement to reflect its position in the settlement hierarchy.

- 5.12 Option 4 (Sustainable Transport Orientated Growth) allocates development based on the role, function and character of settlements and existing constraints and opportunities. This place-based approach to growth would consider the character of the Vale's settlements which otherwise would be overlooked if based solely on the distribution of growth (based either on a settlements size or positioning in the settlement hierarchy). This would enable the plan to identify best growth opportunities for growth that will support or facility the enhancement of infrastructure, services, and facilities. As with Option 3, generally this would mean that the Vale's larger settlements would still = be the focus of development, but it would provide a degree of flexibility needed to achieve sustainable patterns of development.
- 5.13 It is noted that alongside the development and consideration of spatial strategy options, a call for candidate sites was undertaken by the Council¹. This was followed by Stage 1 and 2 Candidate Site Assessments (see Section 5.14 below).

¹ Vale of Glamorgan Council (2022) Candidate Sites [online] available at:
https://www.valeofglamorgan.gov.uk/en/living/planning_and_building_control/Planning/planning_policy/RLDP/Candidate-Sites.aspx

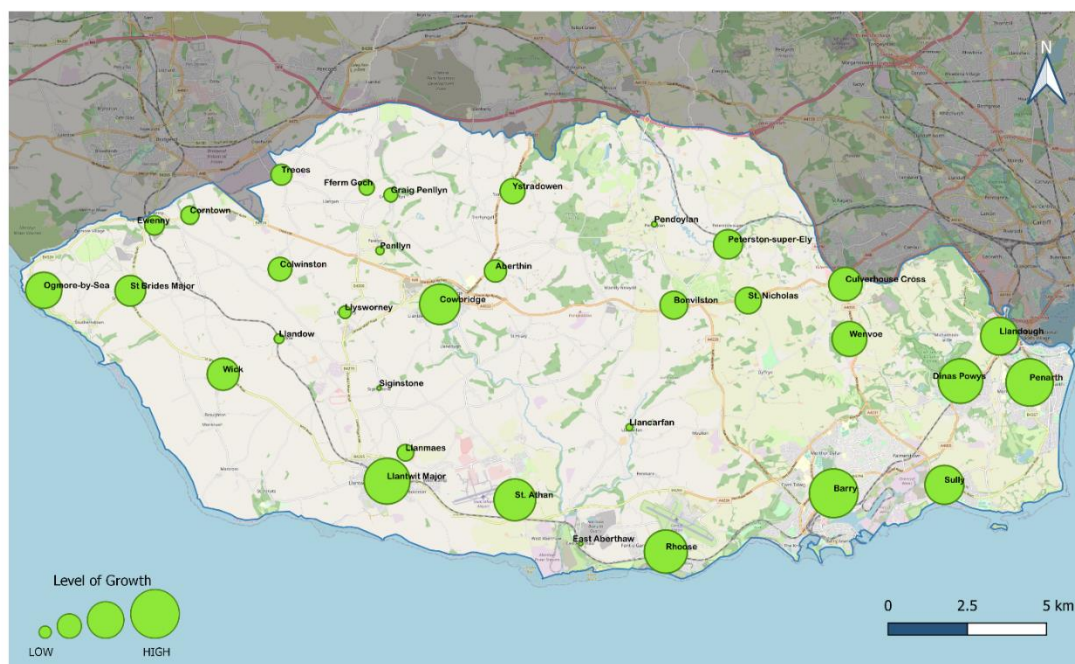
Spatial Option 1 - Continuation of Adopted LDP Growth Strategy

Vale of Glamorgan Replacement Local Development Plan 2021 - 2036



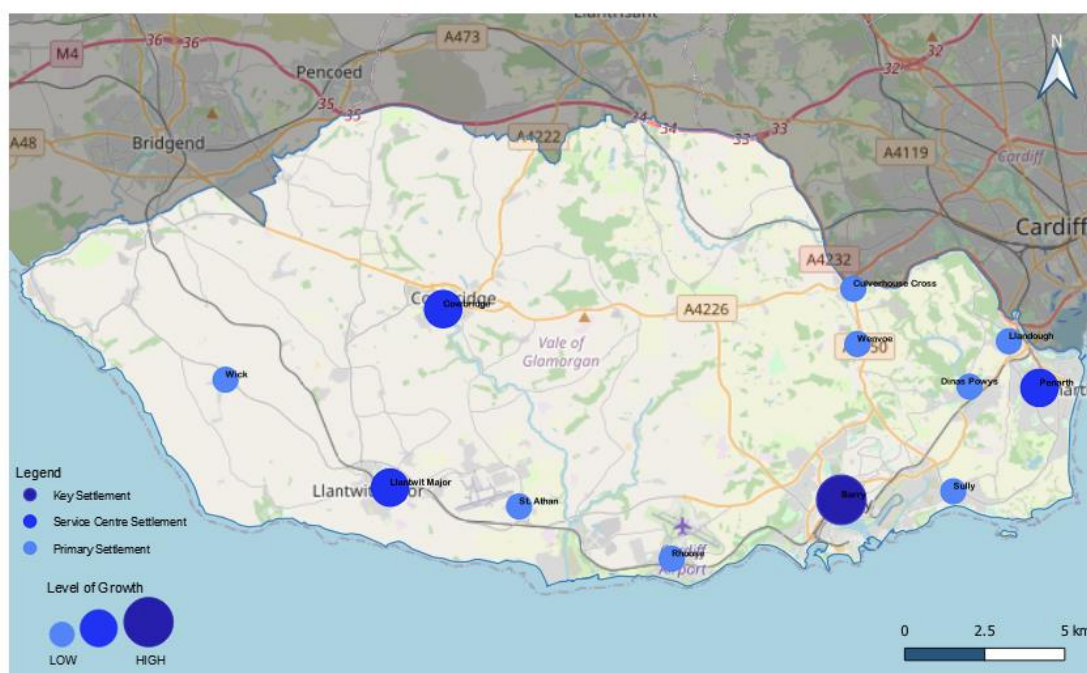
Spatial Option 2 - Dispersed Growth

Vale of Glamorgan Replacement Local Development Plan 2021 - 2036



Spatial Option 3 - Focused Growth

Vale of Glamorgan Replacement Local Development Plan 2021 - 2036



- 5.17 From the Stage 1 assessment, a total of 19 sites were excluded. These are identified within the published Candidate Sites Register².
- 5.18 Following the assessment of sites against Stage 1 of the candidate sites assessment criteria, 134 sites were deemed suitable for further consideration and have subsequently been assessed through the ISA. The methodology, individual site assessment findings, and summary findings are presented in Appendix B.

Key sites

- 5.19 Once a choice has been made in terms of broad direction of growth (Spatial Option 4 - Sustainable Transport Orientated Growth, see Chapter 7 for reasons for selection), the Council seek to identify 'key sites' to underpin the preferred strategy.
- 5.20 The Development Plans Manual does not prescribe a threshold for a 'key site,' instead identifying that this will vary by local authority and will therefore be a matter for LAs to determine. For a site to be 'key' in the context of the Vale, it is considered that it needs to be of a sufficient scale to make a significant contribution to the Objectives of the plan, most notably:
- Homes for All – larger key sites will maximise the delivery of affordable housing.
 - Placemaking – larger key sites can help to support a mix of uses, offer sustainable services and facilities, and deliver adequate infrastructure.
 - Protecting and Enhancing the Natural Environment – larger key sites offer greater opportunities to deliver biodiversity net benefit and fully incorporate networks of green infrastructure within developments.
 - Promoting active and sustainable travel choices – larger key sites can make more meaningful contributions to the enhancement of active travel networks.
- 5.21 The Council consider through their Candidate Site Selection Paper (2023), that to best address the objectives above, key sites would need to be a minimum of 200 dwellings.
- 5.22 Notwithstanding this, in addition to key sites, it is noted that there may still be a need for additional allocations at a smaller scale below this threshold, including affordable housing led developments. These will be identified at Deposit stage.
- 5.23 Overall, 19 sites with a capacity of 200 dwellings or more were submitted through the candidate site process. Several of these sites were ruled out at Stage 1 of the assessment process in accordance with the site assessment procedures. Further sites were discounted as part of Stage 2 due to constraints or other factors.³
- 5.24 Following an assessment against the Strategy, the following sites (Table 5.2 overleaf) have been identified as being suitable in principle for development. These sites accord with the strategy objectives and are subsequently included

² Vale of Glamorgan Council (2023) Stage 1 Candidate Site Register [online] available at: <https://valeofglamorgan.oc2.uk/document/24/707#topofdoc>

³ Stage 2 of the candidate site assessment consist of a 2-part assessment process (see the Candidate Site Assessment Paper). As part of Stage 2 AECOM carried out an assessment of sites against the ISA framework, see Appendix B of this Report.

within the Preferred Strategy as key site allocations. It is noted that of these, two are allocated in the adopted LDP and are considered suitable to be 'rolled forward' as an RLDP housing allocation.

Table 5.2 key site allocations

Site name	Settlement	Site category
Land North East Barry	Barry	New site
Readers Way	Rhose	New site
Land north of the Railway Line	Rhose	Rolled forward LDP site (planning application awaiting determination)
Land West of St Athan	St Athan	New site
Land to the south of Millands Farm	Llantwit Major	New site
Church Farm/ Land adjacent to Church Farm	St Athan	New site
Land north of Dinas Powys	Dinas Powys	New site
Upper Cosmeston Farm	Penarth	Rolled forward LDP site (planning application awaiting determination)

5.25 With the Preferred Strategy underpinned by the candidate site assessment work outlined above (further detail within the Council's Candidate Site Assessment Paper), it is appropriate to conclude that there are no further strategic choices to be made.

6. Appraising the reasonable alternatives

Introduction

- 6.1 This chapter presents the summary findings of the appraisal of reasonable alternatives set out in Chapter 5 above.

Method

- 6.2 The strategic options identified in Chapter 5 were subject to a comparative appraisal under each ISA theme and the detailed findings are presented in Appendix C.
- 6.3 For each of the options, the assessment examines likely significant effects on the baseline, drawing on the sustainability objectives and themes identified through scoping as a methodological framework.
- 6.4 Every effort is made to predict effects accurately; however, this is inherently challenging given the high-level nature of the options under consideration. The ability to predict effects accurately is also limited by understanding of the baseline (now and in the future under a 'no plan' scenario). In light of this, there is a need to make considerable assumptions regarding how scenarios will be implemented 'on the ground' and what the effect on particular receptors would be. Where there is a need to rely on assumptions to reach a conclusion on a 'significant effect' this is made explicit in the appraisal text.
- 6.5 It is important to note that effects are predicted considering the criteria presented within Regulations. So, for example, account is taken of the duration, frequency, and reversibility of effects. Cumulative effects are also considered (i.e., where the effects of the plan in combination with the effects of other planned or on-going activity that is outside the control of the Vale of Glamorgan Council).
- 6.6 Based on the evidence available a judgement is made if there is likely to be a significant effect. Where it is not possible to predict likely significant effects based on reasonable assumptions, efforts are made to comment on the relative merits of the alternatives in more general terms and to indicate a rank of preference. The number indicates the rank and does not have any bearing on likely significant effects. This is helpful, as it enables a distinction to be made between the alternatives even where it is not possible to distinguish between them in terms of 'significant effects'. For example, if an option is ranked as 1 then it is judged to perform better against that ISA theme compared to an option that is ranked 2.

Summary appraisal findings for strategic options

Level of growth

6.7 The three options for the level of growth identified in Chapter 5 were subject to a comparative appraisal under each ISA topic. The detailed findings are presented in Appendix C and summary findings provided below.

Table 6.1 Level growth – ISA summary findings

ISA theme	Rank/ Significant effects	Option 1: Low growth 151 – 211 dpa	Option 2: Medium growth 316 – 527 dpa	Option 3: High growth 637 – 698 dpa
Economy and employment	Rank	3	2	1
	Significant effects?	Uncertain	Yes – Positive	Yes – Positive
Population and community	Rank	3	2	1
	Significant effects?	No	Yes – Positive	Yes – Positive
Health and wellbeing	Rank	No	Yes – Positive	Yes – Positive
	Significant effects?	3	2	1
Equality, diversity, and social inclusion	Rank	3	2	1
	Significant effects?	No	Yes – Positive	Yes – Positive
Climate change (mitigation and adaptation)	Rank	1	2	3
	Significant effects?	Yes – Positive	Uncertain	Uncertain
Transport and movement	Rank	1	2	3
	Significant effects?	Yes – Positive	Uncertain	Uncertain
Natural resources (air, soil, minerals, and water)	Rank	1	2	3
	Significant effects?	No	Uncertain	Yes – Negative
Biodiversity and geodiversity	Rank	1	2	3
	Significant effects?	Uncertain	Uncertain	Uncertain
Historic environment	Rank	2	1	3
	Significant effects?	Uncertain	Uncertain	Uncertain
Landscape	Rank	1	2	3
	Significant effects?	No	Uncertain	Yes – Negative

6.8 The following conclusions are drawn for each ISA theme:

Economy and employment

The high growth option is ranked first, followed by the medium growth option and then the low growth option. The first two options are considered likely to lead to significant long-term positive effects as they will both likely deliver enough new jobs per year to support the growing population. Meanwhile, uncertainty is noted under the low growth option as growth is unlikely to be distributed evenly across the Vale, and one of the scenarios under this option (WG-2014) could even lead to a shrinking local economy. However, it is recognised that housing growth may stimulate the economy through an increase in the population, as well as the short-term employment opportunities associated with construction. Still, this is unlikely to be significant given the low housing growth projections for the scenarios under this option.

Population and community

It is considered that as the level of growth increases, so does the likelihood for significant positive effects in relation to this ISA topic. Therefore, the options are ranked according to the level of growth they deliver, with the high growth option ranked first, followed by the medium growth option and then the low growth option. The first two options are considered likely to lead to **significant long-term positive effect** as they support high/ moderate population growth. No significant effects are anticipated for the low growth option as the level of growth delivered through this option is unlikely to deliver a good range of house types and tenures across the entire local authority area and could lead to affordability issues.

Health and wellbeing

The high and medium growth options are considered likely to lead to **significant long-term positive effects** as they deliver a high/ moderate level of housing and employment growth, which will positively impact the health and wellbeing of new and existing residents through the benefits associated with growth. However, it is considered that the high growth option has the greatest potential to deliver such benefits, and therefore this option is ranked first. No significant effects are anticipated for the low growth option, as whilst the scenarios under this option deliver some housing growth, they deliver little (25 new jobs per year under the employment-led OE scenario) to no (-126 jobs per year under the WG-2014 scenario) employment growth.

Equality, diversity, and social inclusion

The high and medium growth options are considered likely to **significant long-term positive effects** as they deliver the highest/ second highest level of growth and therefore have the greatest potential to lead to investment into opportunities across the Vale, whilst delivering a variety of housing types and tenures and increasing services across the local authority area. No significant effects are anticipated for the low growth option due to the mismatch between housing and employment growth under the scenarios in this option. In terms of ranking, the options are ranked according to the level of growth they deliver.

Climate change (mitigation and adaptation)

Ultimately, the nature and significance of the effects will be dependent on where development is located, as well as the infrastructure improvements that will accompany development. However, when considering the level of housing and employment growth alone, the low growth option is considered likely to lead to **significant long-term positive effects** because it provides the greatest opportunity to prioritise sites in sustainable locations with existing sustainable transport connections. **Uncertainty** is noted for the remaining two options as some development may need to be located in less sustainable locations, which would rely on the delivery of new infrastructure, and the potential of these options to deliver this is not clear at this stage. The options are ranked from lowest to highest level of growth.

Transport and movement	<p>Ultimately, the nature and significance of effects will be dependent on where development is located, as well as the infrastructure improvements that will accompany development. However, when considering the level of housing and employment growth alone, the low growth option is likely to lead to significant long-term positive effects because it provides the greatest opportunity to prioritise sites in sustainable locations with existing sustainable transport connections. Uncertainty is noted for the high and medium growth options because some development may need to be located in less sustainable locations, which would rely on the delivery of new infrastructure, and the potential of these options to deliver this is not clear at this stage. The options are ranked from lowest to highest level of growth.</p>
Natural resources (air, soil, minerals, and water)	<p>The low growth option is ranked first and considered most likely to avoid significant impacts arising. The medium growth option is ranked second, with uncertainty noted, whilst the high growth option is ranked last and considered most likely to lead to significant long-term negative effects due to the amount of land that will likely be required to deliver the level of growth required of this option.</p>
Biodiversity and geodiversity	<p>The low growth option is ranked first, followed by the medium and then high growth option. Uncertainty is noted across all three options as the location of growth is unknown at this stage, which will determine the impact of development on designated sites.</p>
Historic environment	<p>Uncertainty is noted under all three options as the precise location of development under each option is not known at this stage. In terms of rankings, the medium growth option is ranked highest as it delivers a moderate level of growth, limiting the potential of development to negatively impact heritage assets when compared to the high growth option. At the same time, it offers greater potential to boost the tourism and heritage sector when compared to the low growth option. The low growth option is ranked second, above the high growth option, as it is less likely to negatively impact the setting of heritage assets due to increased flexibility in choosing sites.</p>
Landscape	<p>The low growth option is ranked highest under this ISA topic as it is most likely to preserve existing landscape/ townscape/ villagescape character across the Vale. No significant effects are predicted under the low growth option. The remaining two options are ranked according to increasing growth quantum, with the high growth option ranked last. Whilst uncertainty is noted under the medium growth option, significant long-term negative effects are predicted under the high growth option as this option is most likely to negatively impact landscape/ townscape/ villagescape character across the Vale.</p>

Location of growth

6.9 The four options for the location of growth identified in Chapter 5 were subject to a comparative appraisal under each ISA topic. The detailed findings are presented in Appendix C and summary findings provided below.

Table 6.2 Location of growth - ISA summary findings

ISA theme	Rank/ Significant effects	Option 1: Continue the adopted LDP strategy	Option 2: Dispersed growth	Option 3: Focused growth	Option 4: Sustainable transport- oriented growth
Economy and employment	Rank	2	3	4	1
	Significant effects?	No	No	No	No
Population and community	Rank	2	3	3	1
	Significant effects?	Yes - positive	Yes - positive	Yes - positive	Yes - positive
Health and wellbeing	Rank	2	2	3	1
	Significant effects?	No	No	No	No
Equality, diversity, and social inclusion	Rank	1	1	2	1
	Significant effects?	No	No	No	No
Climate change (mitigation and adaptation)	Rank	2	3	2	1
	Significant effects?	No	No	No	Yes - positive
Transport and movement	Rank	2	4	3	1
	Significant effects?	Uncertain	Uncertain	Uncertain	Yes - positive
Natural resources (air, soil, minerals, and water)	Rank	1	3	2	1
	Significant effects?	Yes - negative	Yes - negative	Yes - negative	Yes - negative
Biodiversity and geodiversity	Rank	1	2	1	1
	Significant effects?	Uncertain	Uncertain	Uncertain	Uncertain
Historic environment	Rank	1	3	2	2
	Significant effects?	Uncertain	Uncertain	Uncertain	Uncertain
Landscape	Rank	1	2	2	2
	Significant effects?	Yes - negative	Yes - negative	Yes - negative	Yes - negative

Overall, Option 4 performs notably well against most of the ISA objectives, reflecting the sustainability merits of connected development. The following conclusions are drawn in relation to each theme.

ISA theme	Conclusions
Economy and employment	No significant effects are considered likely under any of the options, but Option 3 is notably less preferred overall due to the limitations placed on developing the rural economy (alongside rural housing growth), and a narrowed focus on the largest settlements, which may be at an opportunity cost of successfully integrating employment development alongside housing growth. Option 4 is preferred overall due to the focus on connected development (including economic connections and potential new rail connections at St Athan, which although not exclusive to this option, are more likely to be delivered under it), alongside appropriate consideration of rural development. Option 1 is considered likely to deliver similar benefits and is preferred to Option 2 as it considers appropriate rural development as opposed to assigning growth to every settlement despite their potential lack of economic and transport connections.
Population and community	Distributing the housing supply under all options is likely to support significant positive effects in the long-term. Option 4 performs notably better than the other options by means of its potential to deliver accessibility benefits, including a new rail station at St Athan (which although not exclusive to this option, are more likely to be delivered under it), ensuring all new homes are well connected. Option 1 also provides the benefits of a considered and more equitable housing distribution across the borough and is thus ranked next. Options 2 and 3 are ranked least favourably given the constraints identified under each option (potential effects on settlement identities under Option 2 and restricting rural development under Option 3).
Health and wellbeing	Whilst no significant effects are considered likely, it is recognised that Option 4 would support more residents across the borough with sustainable transport options including active travel options and green infrastructure networks. Options 1 and 2 are also considered to perform marginally better than Option 3 given these options provide greater potential for rural development benefits.
Equality, diversity, and social inclusion	No significant effects are considered likely at this stage, and positive effects are likely to be realised when the supporting policy framework emerges. Whilst few differences are drawn between the options, Options 1, 2, and 4 are considered to rank better than Option 3, given that they support an element of rural inclusivity.
Climate change (mitigation and adaptation)	<p>Given the potential to deliver significant positive effects in relation to climate mitigation (i.e., focusing development in locations well served by sustainable transport), Option 4 is preferred overall.</p> <p>In relation to climate change adaptation, it is recognised that all options will be directed by the need for sequential and exception testing, which should ultimately ensure that vulnerable development within the floodplain is avoided, and no significant effects are considered likely in this respect. It is also recognised that the supporting policy framework for any of the options could ensure that suitable drainage strategies are included in development proposals, which minimise all forms of flood risk and seek betterment in terms of flood risk and/ or water quality.</p>
Transport and movement	Option 4 ultimately stands out by focusing growth along sustainable transport corridors, including smaller settlements that are well connected by active travel and bus services. This option is ranked most favourably overall given its alignment with sustainable transport and movement objectives and the potential delivery of a new rail station at St Athan. No significant effects are considered likely under the remaining options and Option 2 is ranked least favourably given it directs development to less connected areas. Option 1 is considered to perform better than Option 3 as the approach considers settlement constraints and opportunities more widely across the Vale, which may help unlock more minor positive effects at smaller settlements.

ISA theme	Conclusions
Natural resources (air, soil, minerals, and water)	<p>Whilst no significant negative effects are anticipated in relation to air, mineral resources, or water resources, there is an identified potential for negative effects of significance in relation to soil resources for all options. Limiting rural development under Options 1, 3, and 4 make these options perform marginally better than Option 2, and Options 1 and 4 provide notable benefits by means of connected development providing alternatives to the private car making them rank better overall.</p>
Biodiversity and geodiversity	<p>Whilst the potential for negative effects of significance is recognised under all options, there is uncertainty in the absence of precise locations and growth levels at individual settlements. Options 1, 3, and 4 are marginally preferred to Option 2 as they provide greater potential for strategic benefits (associated with economies of scale) and limit the extent of effects across the borough.</p>
Historic environment	<p>With a wealth of heritage assets and heritage settings abundant across the borough, all growth strategies (i.e., all options) are recognised for potential negative effects of significance, which will be better informed by consideration of precise development locations (with overall uncertainty noted at this stage). Option 2 is notably most likely to lead to impacts across a greater extent of the borough, by allocating development within every settlement area proportionate to its size. Whilst Option 3 (and to a lesser extent Option 4) would limit the extent of development across the borough by focusing it in the main settlement areas (potentially positive), the increased scale of development in main settlements, because of its narrowed focus, could ultimately lead to greater impacts in relation to the significance of designated heritage assets and their settings in these settlements. Option 1 is considered to perform marginally better in this respect, by way of wider distribution and consideration of each settlement's capacity for growth.</p>
Landscape	<p>With a focus on settlement expansion (with limited brownfield opportunities) under all options, it is considered likely that future growth will place pressures upon sensitive landscapes and key characteristics, predominantly from increased urbanisation. The potential for significant negative effects is ultimately recognised at this stage under all options (pre-mitigation), though this will be better informed by consideration of precise development locations. Option 2 is notably most likely to lead to impacts across a greater extent of the borough, by allocating development within every settlement area proportionate to its size. Whilst Option 3 (and to a lesser extent Option 4) would limit the extent of development across the borough by focusing it in the main settlement areas (potentially positive), the increased scale of development in main settlements, because of its narrowed focus, could ultimately lead to greater impacts in relation to landscape character and encroachment upon the countryside. Option 1 is considered to perform marginally better in this respect, by way of wider distribution with greater consideration of each settlement's capacity for growth, including landscape capacity for change.</p>

7. Developing the Preferred Strategy

Introduction

- 7.1 This Chapter presents the Council's response to the alternatives appraisal and the Council's reasons for selecting its preferred approach in light of the alternatives appraisal and other factors.

The Council's outline reasons for choosing the Preferred Strategy

Level of growth

- 7.2 As explained within the Growth Options Background Paper, a medium level of growth received support through stakeholder engagement and is considered appropriate for the following reasons:
- 7.3 The number of jobs associated with the population increase would align with the recommendations of the ELS on the number of jobs that would be required, reducing the need for commuting.
- 7.4 In all options, there would be an increase in the 65+ population, but this level of growth would also stabilise the working age and school age populations over the plan period, unlike the low population growth option, where there would be a decline overall in these age groups. A stable working age and school aged population will support economic growth and will help achieve balanced thriving communities where services and community facilities such as schools remain viable.
- 7.5 This level of growth would require a moderate level of new dwellings to be allocated, which will increase opportunities to secure affordable housing through Section 106 agreements and deliver additional affordable housing led allocations. This will help address the significant affordable housing need identified across the Vale. Under the low growth options, there would be no need to allocate any additional new housing sites as there is sufficient land within the existing land supply to meet the housing requirements. Opportunities to deliver affordable housing would therefore be limited.
- 7.6 A medium level of growth would accord with the aspirations for the Vale of Glamorgan within the Future Wales national growth area, which is identified as a focus for strategic economic and housing growth. The level of growth in the plan should be sufficiently ambitious to support this, whilst at the same time being complementary to and not competing with Cardiff, which is identified in Future Wales as the primary settlement within the region. It is considered that low growth, which would mean no new housing or employment allocations, would not accord with what the national growth area is seeking to achieve. Conversely, a level of growth beyond what has realistically been achieved in the past as required in the high growth scenarios could have implications for the level of growth that could be accommodated in other LAs within the Cardiff Capital Region.

- 7.7 It is considered that there is sufficient capacity within the Vale to accommodate a medium level of growth that can be delivered in sustainable locations in a manner that affords appropriate protection to the most valuable areas of the natural and built environment.
- 7.8 In order to respond to the RLDP Objectives, particularly delivering 'Homes for All' and 'Building a Prosperous and Green Economy,' it is considered that the evidence base would support growth towards the higher end of the 'medium' range as this would maximise the potential for affordable housing delivery and best align the proposed working age population increases with employment requirements.
- 7.9 The Preferred Growth option is the Dwelling-led 10 Year scenario, which is based on the average annual build rate for the first 10 years of the adopted plan (526 dwellings per annum or 7,890 over the plan period). As this option reflects what has been delivered in recent years, it is considered to be realistic and deliverable and suitably ambitious, given the Vale's position within the national growth area.

Location of growth

- 7.10 Following analysis of the four strategy options, and the output of the stakeholder engagement sessions, it is considered that the Sustainable Transport Oriented Growth Option is the most appropriate as it best aligns with the policy requirements of Future Wales, Planning Policy Wales and Llwybr Newydd – the Wales Transport Strategy by focusing development in sustainable places that would reduce the need to travel and encourage the use of sustainable transport. This option will consider the capacity of settlements to accommodate development, rather than targeting development primarily to sites of a certain size or position in the settlement hierarchy.
- 7.11 Following the engagement process, the focus of the strategy has been refined so that it seeks not only to locate sites in places well served by public transport but also targets development in places that reduce the need to travel in the first place through the co-location of housing in places with employment opportunities, services and community facilities. This Sustainable Growth Strategy also responds to the acute need for affordable housing through focusing development in the areas with greater need. The strategy also allows for small scale affordable housing led developments in minor rural settlements where appropriate to respond to the need for affordable housing in communities across the Vale.

Part 2: What are the ISA findings at this stage?

8. Introduction (to Part 2)

8.1 The aim of this chapter is to present an appraisal of the RLDP Preferred Strategy.

Methodology

8.2 The appraisal identifies and evaluates ‘likely significant effects’ of the plan on the baseline, drawing on the ISA objectives identified through scoping (see Table 3.1) as a methodological framework. In total, there are ten ISA topics, as follows:

- Economy and employment;
- Population and communities;
- Health and wellbeing;
- Equalities, diversity, and inclusion;
- Climate change;
- Transport and movement;
- Natural resources;
- Biodiversity and geodiversity;
- Historic environment; and
- Landscape.

8.3 Every effort is made to predict effects accurately; however, this is inherently challenging given the high-level nature of the policies under consideration and understanding of the baseline (now and in the future under a ‘no plan’ scenario) that is inevitably limited. Given uncertainties there is a need to make assumptions, e.g. in relation to plan implementation and aspects of the baseline that might be impacted. Assumptions are made cautiously and explained within the text (with the aim to strike a balance between comprehensiveness and conciseness/ accessibility). In many instances, given reasonable assumptions, it is not possible to predict ‘significant effects’, but it is nonetheless possible and helpful to comment on merits (or otherwise) of the Plan in more general terms.

8.4 Finally, it is important to note that effects are predicted taking account of the effect of characteristics and ‘significance criteria’ presented within Schedules 1 and 2 of the SEA Regulations. So, for example, account is taken of the probability, duration, frequency, and reversibility of effects as far as possible. Cumulative effects are also considered, i.e., the potential for the Plan to impact an aspect of the baseline when implemented alongside other plans, programmes, and projects. Explicit reference is made within the appraisal as appropriate (given the need to balance the desire of systematic appraisal with a desire to ensure conciseness/ accessibility).

9. Appraisal of the Preferred Strategy

Introduction

9.1 As introduced above, the aim of this chapter is to present an appraisal of the Preferred Strategy under the ISA topics/ framework.

Overview of the Preferred Strategy

9.2 The focus of the Preferred Strategy at this stage is broad elements of provision, with more detailed development management policy to follow at deposit stage.

9.3 Policy SP1 (Preferred Growth Strategy) states that the emerging RLDP will plan for the delivery of 7,890 dwellings by 2036, including a minimum of 2,000 affordable homes. The RLDP will also make provision for employment sites to deliver the identified employment land requirement 67.8ha and the delivery of up to 5,388 jobs.

9.4 Along with the level of growth, Policy SP1 outlines the spatial distribution that the strategy has chosen to adopt, which includes a focus on the Strategic Growth Area. Policy SP2 identifies the hierarchy of settlements within the Vale of Glamorgan, reflecting the Strategic Growth Area of the Plan. As shown within Figure 9.1 below, within the Growth Area, the Strategy directs growth to the Key, Service Centre, and Primary Settlements located within the Strategic Growth Area.

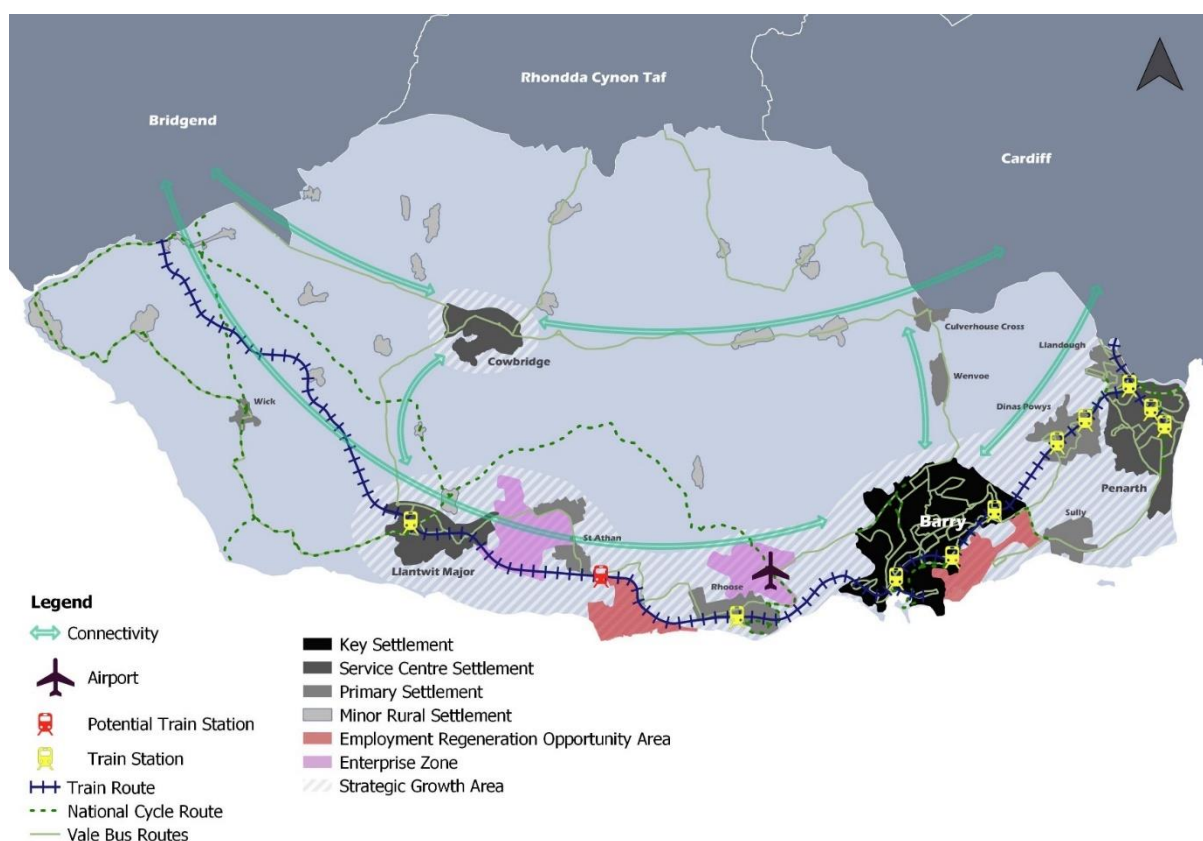


Figure 9.1 Preferred Strategy Key Diagram - Strategic Growth Area

- 9.5 Policy SP3 identifies a housing requirement of 7,890 dwellings (526 units per annum) for the plan period. With the inclusion of a 10% margin for flexibility to ensure deliverability, the plan will make provision for 8,679 dwellings. This housing provision will be delivered from the component sources listed in Table 9.1 overleaf.
- 9.6 Policy SP4 (Key Housing-Led Sites) identifies the Key and Strategic Growth Area Housing Allocations that will contribute towards meeting the majority of the housing requirement over the plan period. These consist of new Key Sites allocations, and Strategic Growth Area Land Bank Sites Committed and Rolled Forward Sites (i.e. sites with planning permission and/or existing allocated sites that are realistically likely to be delivered in the RLDP plan period). The committed and rolled forward sites have not been a focus of the ISA (as it is assumed that these sites are acceptable in principal having been permitted or found sound through previous plan-making) but are a cumulative consideration alongside the proposed new growth opportunities.
- 9.7 Strategic Policies 4.1 – 4.5 provide further consideration of the Key Sites in terms of housing, community facilities, sustainable transport, and infrastructure requirements. The key sites, and associated level of growth proposed within the plan period, are as follows:
- North East Barry (900 homes)
 - North of Dinas Powys, off Cardiff Road (250 homes)
 - Readers Way (450 homes)
 - Church Farm, St Athan (250 – 550 homes)
 - Land to the West of St Athan (600 homes)
- 9.8 Table 9.1 overleaf summarises the overall spatial distribution of the various components of the housing land supply as they relate to the RLDP Settlement Hierarchy (Policy SP2).

Table 9.1 Spatial distribution of existing housing land supply (April 2023)

Components of Housing Supply		Settlement Hierarchy				
A	Total completions 2021-23= 785 dwellings	Key Settlement Barry	Service Centre Settlements	Primary Settlements in Strategic Growth Area	Minor Rural Settlements and Primary Settlements outside of Strategic Growth Area	Hamlets and Smaller Rural Settlements
	Small Windfall	33	23	22	5	2
	Large (Windfall) and Allocations	268	102	303	27	0
B	Units under Construction April 2023	261	99	145	8	0
C	*Units with Planning permission Not Started (April 2023)	153	608	561	111	16
D	LDP Sites carried forward	135	938	637	0	0
E	Key Housing Allocations	900	0	1,550 – 1,850	0	0
F	Additional Housing and Affordable Housing Led Allocations	TBC	TBC	TBC	TBC	TBC
G	Large windfall sites (10>)	364	34	266	53	71
H	Small windfall sites (<10)	293	108	214	43	57
I	Total Housing Provision	2,407	1,912	3,698 - 3,998	247	146
Total Provision		8,410 – 8,710				

9.9 Table 9.1 above illustrates that the spatial distribution of new housing is being directed in line with the spatial growth strategy (Policy SP1), specifically to the settlements in the Vale that are best served by public transport connectivity and offer a good range of services and facilities. Barry, as a key settlement, is accommodating a significant proportion of new development in line with its status in the hierarchy, being a sustainable settlement well served by sustainable transport. The service centre settlements are also accommodating a large share of growth. Whilst the highest proportion of development is

identified within the primary settlements within the strategic growth area, it is noted that there are five settlements within this category – St Athan, Rhoose, Dinas Powys, Llandough and Sully. These are settlements that as well as having good existing and proposed public transport links, are also well served by employment opportunities in close proximity, aligning housing with employment. Only a small proportion of development is likely to take place outside of the strategic growth area, with some of this development relating to planning permissions granted in accordance with the adopted LDP strategy.

- 9.10 In terms of the wider strategy, regeneration and the diversification of town centres is a focus, underpin by town centre first principles to support the creation of vibrant communities. Specific regeneration projects include Aberthaw and Barry Docks, which respond to the implications of climate change by delivering the production of renewable and green energy projects. More broadly, the Strategy supports the role of Cardiff airport as a strategic gateway for international connectivity.
- 9.11 The strategy seeks wherever possible to favour the re-use of previously developed land, avoid areas of flood risk, and protect and enhance high quality green infrastructure provision. The strategy also highlights the importance of the Vale's natural assets, including sites and areas of European, national and local importance, as well as important landscapes, woodlands and an extensive coastline that includes the Vale of Glamorgan Heritage Coast. In this context, the Vale is promoted through the Strategy as a destination for Sustainable Tourism.

Economy and employment

Appraisal of the Preferred Strategy

- 9.12 The primary focus of housing and employment growth throughout the Vale shall be within the Strategic Growth Area, shaped by the hierarchy of settlements (Policy SP2), reflecting the role and function of places. The Strategy directs growth to the Key Settlements, Service Centres, and Primary Settlements, reflecting the findings of the Employment Land Study (ELS) (2022), which highlighted that the Vale's economic activity is primarily within the industrial and manufacturing sectors. These sectors are focused within Barry, Cardiff Airport and Bro Tathan (St Athan); and to a lesser extent the Rural Vale, although it is recognised this is not a focus of growth.
- 9.13 Policy SP13 (Employment Growth) establishes specific strategic and local employment site allocations, alongside areas within the Vale for regeneration. These sites will deliver the identified employment land requirement 67.8ha and up to 5,388 jobs. Employment site allocations are focused to the three key employment market areas identified within the ELS (and referenced above). Notably this includes the Cardiff and St Athan Enterprise Zones and Land to the South of Junction 34; both key areas of investment and employment opportunities within the Vale. It is considered that capitalising upon the Vale's flagship sites – the Cardiff Airport and Gateway Development Zone, which is directly adjacent to the airport, and the Bro Tathan site at St Athan – will stimulate inward investment and consolidate the role of the Vale of Glamorgan within the Cardiff Capital Region.

- 9.14 The businesses within the Cardiff Airport and Bro Tathan Enterprise Zone provide a range of high-quality jobs, with further development opportunities anticipated to be delivered throughout the RLDP plan-period. It is noted that a feasibility study for a new station at St Athan was completed in 2022, which identified four potential site locations for a new station to the south of St Athan. The proposed station is currently being considered through the Welsh Transport Appraisal Guidance (WelTAG) business case process. If successful, the station would serve the residential settlement of St Athan and wider area, including Bro Tathan Enterprise Zone and the proposed Aberthaw Green Energy Park. The delivery of a new station would perform positively in terms of supporting inward migration, reducing the need to travel by car, and encouraging modal shift (a key objective of the emerging RLDP). Additionally, it is noted that the Green Energy Park offers a unique opportunity to create high skilled jobs while supporting zero-carbon objectives, and promote growth and interaction with the green economy.
- 9.15 The Preferred Strategy more broadly supports the green economy and seeks to invest in nature, utilising the natural environment as a tourist designation to improve the Vale's economic well-being. This includes the Glamorgan Heritage Coast, the Wales Coast Path and seaside resorts; attractive countryside and country parks; historic features; and a well-established network of walking routes. Barry Island seafront and Whitmore Bay are recognised as one of the main tourist destinations within the Vale of Glamorgan. Policy SP14 (Sustainable Tourism) supports *"proposals which promote the Vale of Glamorgan as a destination for Sustainable Tourism"*. Encouraging new investment in the Vale's natural resources alongside appropriately located tourism has the potential to lead to long term positive effects for the local economy.
- 9.16 Consideration is given to the changes in tourism and spending habits both within the Vale and more widely across Wales. Health checks on the main town centres undertaken as part of the Retail and Commercial Leisure Study (2023) indicated that Penarth, Cowbridge, and Llantwit Major were performing well, with below average levels of vacant units within the district centres, whereas the town centre of Holton Road in Barry, and the District Centre of High Street had higher than average vacant units. In light of Study findings, and in accordance with Future Wales Town Centre First Policy, Policy SP10 (Retail, Commercial and Service Centres) adopts a flexible approach to non-retail uses within the Town Centre, to create a mix of retail, commercial, leisure, residential uses, etc. To ensure the long-term viability and vitality of the Vale's retail centres are maintained, Policy SP10 supports a range of uses where it *"increase footfall within the centres."*
- 9.17 In line with Policy SP1 (Growth Strategy), Barry will accommodate over 25% of the total housing provision, including 900 homes at key site North East Barry. This reflects Barry being the Vale's largest settlement that is well connected with sustainable transport options and neighbouring economic areas - notably Cardiff and Bridgend, with access expected to improve as part of Metro advances. Barry also offers a range of strategic services and facilities, experiencing major growth during the previous plan period, including through the mixed-use redevelopment of Barry Waterfront. It is recognised that there are continued plans for regeneration of Barry Waterfront, and investment in Barry Island, which is a focal point for tourism.

- 9.18 The Preferred Strategy directs a significant proportion of growth towards Primary Settlements St Athan and Rhoose, including key housing sites Readers Way (450 homes), Church Farm (250-550 homes) and Land to the West of St Athan (600 homes). It is considered that this will support economic objectives, capitalising on connections such as the Cardiff Airport and Bro Tathan Enterprise Zone to drive future investment associated with the Cardiff Capital City Region. This includes infrastructure enhancements such as the South Wales Metro, which is a key driver for growth as part of the of the Southeast Wales Growth Area, and in accordance with Future Wales.
- 9.19 The Preferred Strategy focuses a level of growth to the settlements of Cowbridge, Penarth and Llantwit Major, following the settlement hierarchy (Policy SP2), and Study findings (2023) above. These settlements have been classed as 'Service Centre Settlements' reflecting their role in providing a range of services that serve the daily needs of their residents and acting as important hubs for those living in nearby smaller settlements. The nature of the Vale's settlement patterns means that residents within the main towns and settlements are better able to access a range of facilities by walking, cycling and public transport. Directing growth to these locations is therefore considered to lead to long term positive effects. Policy SP12 further seeks to ensure settlements' economic prosperity, ensuring all new developments in the Vale of Glamorgan are supported by appropriate services and facilities to meet their needs and the needs of the existing community.

Summary appraisal

- 9.20 The Preferred Strategy proposes the delivery of new employment land and homes to meet identified local needs and provide flexibility during the plan period. The primary focus of housing and employment growth within the Vale shall be within the Strategic Growth Area, shaped by the settlement hierarchy of and reflecting the role and function of places. Most development, including Key Sites, is directed towards the Key Settlement, Service Centre Settlements, and Primary Settlements where there is greatest access to sustainable transport modes and wider infrastructure. The Preferred Strategy looks to capitalise on existing economic connections (such as the Cardiff Airport and Bro Tathan Enterprise Zone) and future investment associated with the Cardiff Capital City Region, including infrastructure enhancements such as the South Wales Metro project. The Preferred Strategy therefore performs well, recognising that 'connected development' is a key driver for growth as part of the of the Southeast Wales Growth Area and a key consideration in accordance with Future Wales. The potential delivery of a rail station at St Athan would also improve economic connections within and outside of the Vale.
- 9.21 Overall, the Preferred Strategy is predicted to lead **to significant long-term positive effects** regarding the economy and employment ISA topic. It takes advantage of opportunities arising from the Vale's strategic location, capitalising upon major employment allocations in sustainable locations, as key areas of investment. As a result, it should help to provide significant employment and training opportunities, enable established business to expand, and provide attractive areas for local business investment. It is considered that economic growth could potentially reduce out-commuting, however the strategy still seeks to enhance those key sustainable connections with strategic employment areas outside of the Vale, such as Cardiff.

- 9.22 In relation to the Vale's wider retail centres, the Preferred Strategy supports the main towns and service centres in adapting to changing consumer lifestyles, diversifying, and thriving in the long-term.

Appraisal of cumulative effects

- 9.23 Vale of Glamorgan's location within the Cardiff Capital Region (CCR) gives it a broad regional context, and its location neighbouring Cardiff places it in a strong strategic location in terms of the regional economy. In this respect, there is potential for cumulative positive effects on the regional economy resulting from proposed growth in the Vale and vice versa.
- 9.24 The CCR City Deal identifies regional economic challenges and opportunities for the ten authorities which comprise the CCR, including Vale of Glamorgan. Addressing economic challenges and maximising opportunities are key objectives for the City Deal, which has the potential to lead to significant positive cumulative effects for the Vale in the long term. Notably CCR has funded a number of major investments within the region, including the recent purchase of the former Aberthaw Power Station and facilitate its demolition, remediation, and redevelopment as a green energy park.
- 9.25 Vale of Glamorgan falls within the National Growth Area of Cardiff, Newport and the Valleys, which is identified through Future Wales as the focus for growth and investment in the South East Region. To deliver these regional priorities and aspirations, Future Wales recognises that the 10 authorities within the region do not exist in isolation from each other and that preparing Local Development Plans, planning authorities "*will need to consider the interdependence of Cardiff and the wider region, ensuring communities around the Capital are vibrant, prosperous and connected*". For the Vale's emerging RLDP this will require consideration of how the aspirations for the Vale of Glamorgan in terms of housing and economic growth align and compliment with the wider regional aspirations, particularly those of neighbouring Cardiff and Bridgend.
- 9.26 Cardiff Airport will be key in this respect, recognised as an important gateway for business and tourism in South Wales. The airport plays a significant role in supporting the regional economy and connecting South Wales to destinations across the UK and the world. Stimulating inward investment is anticipated to lead to positive cumulative effects for the region.
- 9.27 Neighbouring authorities Bridgend and Cardiff identify travel to work patterns within their respective emerging RDLP and adopted LDP. Both show reasonable levels of out-commuting to and from the Vale. The role of Cardiff and Bridgend as a principal retail, employment, and service centres for the Vale's east and western communities is also highlighted. Focusing growth within the Vale's Strategic Growth Area along strategic transport routes will likely strengthen the interrelationships with adjoining authorities, promoting modal shift and increased accessibility between key settlements/ service centres within the region.
- 9.28 In terms of Rhondda Cynon Taf to the north, strategic road links connect the County Borough with the Vale of Glamorgan. The adopted LDP highlights the importance of RAF St Athan in the Vale of Glamorgan, providing a level of employment to Rhondda residents. As above, it is considered that growth/

investment throughout the region will support important communication links, with positive effects likely where growth within the Vale is focussed on strategic transport routes.

- 9.29 The visitor economy is notably significant in Vale of Glamorgan, which is largely due to the presence of Glamorgan Heritage Coast, Whitmore Bay, Barry Island and Penarth, as well as its location within the South East Wales region. It is considered that as a National Growth Area (discussed above), investment in the region, including necessary infrastructure, will support the local visitor economy.

Population and communities

Appraisal of the Preferred Strategy

- 9.30 A key consideration under the population and communities ISA topic is the provision of the right number of homes in the right places, including delivering a sufficient mix of housing types and tenures to meet different identified needs within the community.
- 9.31 As set out in Policy SP3 (Housing Requirement), the RLDP will make provision for 8,679 dwellings to deliver a housing requirement of 7,890 dwellings per annum (based on a 10% allowance for flexibility). The level of growth is based on the 'Dwelling-led 10 Year scenario', and as shown in Chapter 6, is considered to be the most appropriate growth strategy for the Vale over the plan period. It is deliverable and suitably ambitious, particularly given the Vale's position within the national growth area, and will address the acute need for affordable housing; whilst also being achievable within the constraints of the natural and built environment. On this basis, the Preferred Strategy is considered to have a significant long-term positive effect in relation to this ISA topic, ensuring the delivery of new homes to exceed local needs.
- 9.32 In terms of the location of new housing and employment, the Preferred Strategy focuses development in the Strategic Growth Area. It will *"accommodate the main centres of population and urban settlements, that are served by a range of facilities and services, and are accessible by a range of transport modes."* Within the Strategic Growth Area, Barry is the Key Settlement, supported by the Service Centre settlements of Llantwit Major, Penarth and Cowbridge.
- 9.33 The primary settlements of Sully, Dinas Powys, Llandough (Penarth), Rhooose and St Athan have also been included within the Strategic Growth Area. These are considered to be sustainable locations where new residential development can be aligned with other uses, and where there are current and proposed sustainable transport options to reduce the need to travel by car. Key sites 'Readers Way, Rhooose' (Strategic Policy 4.3) and 'Land to the west of St Athan' (Strategic Policy 4.5) are examples where development would form a logical extension to the St. Athan Settlement, delivering sustainable growth.
- 9.34 Outside of the higher tier settlements, service centre Cowbridge is apportioned a significant level of growth, reflecting the sustainable nature of the settlement (as identified in the settlements appraisal review), with a thriving high street, primary and secondary school, amongst other services. It is considered that the Preferred Strategy suitably addresses the ISA objective to provide *"homes, and community infrastructure, in sustainable locations to meet identified needs"*.

- 9.35 The 2021 Local Housing Market Assessment (LHMA) (2021) identifies that the Vale has a significant need for affordable homes, with affordable housing need steadily increasing over the past 10 years.⁴ Need is most acute within Barry and Penarth/Llandough, and predominantly consists of smaller one and two-bedroom units.⁵ This reflects the high prevalence of single person households and households comprising of couples with no children. To meet this need, Policy SP8 (Affordable and Specialist Housing) sets out that the residential requirement (identified in Policy SP3) will be expected to deliver a minimum of 2,000 affordable residential units over the plan period. The Preferred Strategy therefore performs well in terms of directing growth to areas in the Vale with the greatest need (i.e., Barry and Penarth).
- 9.36 Notably, 40% affordable housing is required through Strategic Policy 4.2 at key site 'Land to the north of Dinas Powys, off Cardiff Rd', while 35% is required at key site Readers Way, Rhoose (Strategic Policy 4.3). A 30% affordable housing requirement is set for key site Land in North East Barry (Policy 4.1), which will accommodate up to 1,500 dwellings (900 within the plan period). It is considered that the delivery of Key Sites within the Strategic Growth Area will contribute positively towards meeting affordable housing needs.
- 9.37 The Preferred Strategy also allows for small scale affordable housing led development in settlements outside the Strategic Growth Area at a scale proportionate to the size of settlement. It is considered that this will help maintain a balanced demographic structure within the minor rural settlements and will assist in sustaining local services and facilities, including schools. In terms of specific allocations, the next iteration of the RLDP is expected to identify small and medium sites, including within smaller settlements, that will contribute to meeting rural housing needs.
- 9.38 It is recognised (Census, 2021) that the population of the Vale of Glamorgan is ageing. Policy SP8 therefore conditions that in meeting the affordable housing target, the emerging RLDP will "*ensure that new housing developments provide for a mix of housing tenures, types, and sizes of homes. This includes specialist accommodation to meet the needs for residents with care needs and an ageing population, in accordance with the Council's latest Local Housing Market Assessment and Older Persons Housing Strategy*". Furthermore, Policies SP3 and SP4 make provisions for new housing developments to include specialist housing such as older persons housing as part of the overall mix with residential developments.
- 9.39 Policy SP5 (Placemaking) is also of relevance, outlining that all development proposals must provide a range of housing types and tenures, further contributing towards meeting local needs.
- 9.40 More broadly, Policy SP5 sets out 'Placemaking Principles' which must be demonstrated through development proposals. This includes creating a diverse mix of multifunctional spaces, ensuring development is well connected and inclusive, and strategically integrating Green Infrastructure networks and open space. Policy SP5 aligns with Welsh Government's policy direction towards better places and placemaking⁶, and is therefore anticipated to deliver multiple

⁴ Vale of Glamorgan Local Housing Market Assessment (2021)

⁵ Vale of Glamorgan Local Housing Market Assessment (2021)

⁶ WG (2020) Building Better Places <https://www.gov.wales/sites/default/files/publications/2020-07/building-better-places-the-planning-system-delivering-resilient-and-brighter-futures.pdf>

benefits, improving quality of life and community wellbeing. This reflects Vale of Glamorgan Council's commitment as signatory to the Placemaking Charter Wales.⁷

- 9.41 Community wellbeing is also supported through Policy SP12 (Community Infrastructure and Planning Obligations), Policy SP19 (Biodiversity and Ecosystem Resilience) and Policy SP17 (Green Infrastructure). Policy SP12 notably sets the requirements for ensuring all new developments in the Vale are supported by appropriate services and facilities to meet their needs and the needs of the existing community. This includes but is not limited to affordable and specialist housing, and community facilities. Supporting policy text recognises that timely delivery of necessary infrastructure that supports and mitigates the impact of new development will be essential to deliver sustainable communities.
- 9.42 It is recognised that site specific community infrastructure is identified under relevant key site allocations set out in Policies SP4.1 to 4.5. Notably, placemaking principles are embedded within Strategic Policy 4.1 (North East Barry). The Key Site is allocated for a 1,500 home residential led development, including a primary school, commercial uses, green infrastructure, leisure facilities, and improved active travel routes. The delivery of new infrastructure alongside new homes is considered to lead to long term positive effects in terms of supporting sustainable communities and self-containment. Effects are likely to be particularly significant in Barry where capacity of infrastructure, particularly schools, is currently limited. Planned development will therefore support the sustainable growth and regeneration of Barry; targeting pockets of deprivation seen.
- 9.43 It is noted that Barry (Holton Road), Penarth and Cowbridge are identified as Town Centres, playing an important role in their provision of retail and services as they serve surrounding and wider communities. Recognising the changing role of traditional town centres, Policy SP10 (Retail, Commercial and Service Centres) sets guidelines for their evolution. In accordance with national policy, this includes moving towards multifunctional centres that contain a broad range of retail, leisure, and services.
- 9.44 It is a requirement that the Council takes account of the needs of the Gypsy and Traveller (G&T) community in preparing their development plans. Policy SP9 therefore seeks to ensure that the need identified through the latest Gypsy and Traveller Accommodation Assessment (GTAA) is met. In line with Policy SP9, land will be made available for 11 additional G&T pitches to be delivered over the plan period (9 pitches to 2026, and a further 2 pitches by 2036).

Summary appraisal

- 9.45 The Preferred Strategy delivers a level of growth which exceeds the Vale of Glamorgan's identified housing need over the plan period. This is based on the 'Dwelling-led 10 Year scenario' (as shown in Chapter 6), and the 'Sustainable Transport Oriented Growth' spatial strategy option (also shown in Chapter 6).
- 9.46 The strategy performs well overall against the population and communities ISA objectives, with **significant long-term positive effects** concluded. The

⁷ <https://dcfw.org/placemaking/placemaking-charter/>

strategy seeks to deliver a sustainable level of housing and employment growth, supported by appropriate infrastructure to accord with the Vale's position within the Cardiff Capital Region/ Future Wales national growth area. It is considered that focusing growth, including key strategic sites, within the Strategic Growth Area will support the development of adaptable, accessible, well-connected communities. Specifically, the scale of development proposed through Key Site 'North East Barry' offers the opportunity to make significant infrastructure improvements to ensure that this extension to Barry integrates with the existing community.

- 9.47 Strategic policy requirements include ensuring that proposals adhere to place-making principles, reflecting the Council's role as signatory to the Placemaking Charter Wales. Embedding placemaking principles in the planning, design, and management of new and existing places will likely deliver communities with a strong sense of identity, that offer a sustainable range of services and facilities and that are equipped with adequate infrastructure. This includes directing a significant proportion of growth to areas in the Vale with the greatest housing need (notably Barry and Penarth)⁸, however there is a general need for a range of types and sizes of affordable housing across the Vale.

Appraisal of cumulative effects

- 9.48 Development proposed within Vale of Glamorgan has the potential to lead to positive cumulative effects alongside growth proposed by neighbouring local authority areas within the Cardiff Capital Region, particularly in relation to the supply of a sufficient quantity of the new homes in sustainable locations.
- 9.49 The adopted and emerging LDPs of the surrounding local authority areas propose meeting or exceeding their identified housing needs. In this respect, the proposed housing delivery of the Preferred Strategy has the potential to contribute towards regional growth.
- 9.50 The level of growth proposed accords with the aspirations for the Vale of Glamorgan within the Future Wales national growth area, whilst at the same time being complementary to and not competing with Cardiff. This includes encouraging existing residents to live and work in the Vale (reducing out-migration and out-commuting) as well as encouraging the in-migration of new residents. This is important, given the need to strengthen the working and school age population to offset the Vale's ageing population.
- 9.51 In this context, there are likely to be positive cumulative effects associated with region-wide growth. These will be strengthened by proposed enhancements to cross-boundary sustainable transport infrastructure proposed through the CCR City Deal. It is likely that this will improve access to existing services and facilities available at a range of Principal Settlements, including Barry, Cardiff, and Bridgend.

⁸ Vale of Glamorgan Local Housing Market Assessment (LHMA)

Health and wellbeing

Appraisal of the Preferred Strategy

- 9.52 A key aspect of achieving positive health and wellbeing outcomes through new development is the extent to which residents are able to make healthy travel choices when accessing key services, facilities, and employment. In practice this means locating development within reasonable walking or cycling distance of such facilities and linking it with suitable walking and cycling infrastructure. An objective of the Preferred Strategy has therefore been to allocate mixed-use, strategic-scale sites in sustainable locations; balancing employment provision with the level of population growth to reduce commuting. Notably, Key Sites have been identified where they will be able to limit the need to travel, and offer a choice with the priority being on walking, cycling and passenger transport.
- 9.53 Key Site North East Barry (Strategic Policy 4.1) is noteworthy in this respect, delivering *“on and off-site measures to provide good quality, attractive, legible, safe and accessible pedestrian and cycle linkages to local services, facilities and public transport nodes, including to Cadoxton Station”*. Similar requirements are also set for key site Land to the North of Dinas Powys (Strategic Policy 4.2) and key site Land at Readers Way (Strategic Policy 4.3). Whilst illustrative layouts have been provided for each site, it is recognised that further detailed assessment work will be undertaken in the lead up to the Deposit Plan including detailed masterplanning and a detailed list of development requirements. Nonetheless, in spatial terms, it is considered that the Preferred Strategy will promote health and wellbeing.
- 9.54 More broadly speaking, the Preferred Strategy facilitates healthy travel choices by directing growth to the Key Settlement of Barry, supported by the Service Centre settlements of Llantwit Major, Penarth and Cowbridge. The nature of the Vale’s settlement patterns means that residents within these locations are better able to access a range of facilities by walking, cycling and public transport. The Preferred Strategy therefore performs well in terms of the ISA objective to *“promote healthy and sustainable places well connected to sustainable transport options”*.
- 9.55 Consideration is also given to the impact of the Covid-19 pandemic on the health of communities. Notably, Building Better Places (2020) acknowledges the post-pandemic behavioural shift of increased cycling and walking activity, and new working from home patterns⁹, which have reduced the overall need to travel. It is considered that the emerging RDLP will play an important role in supporting the post-covid recovery in the Vale of Glamorgan, whilst also contributing towards the future resilience of communities. The Preferred Strategy strategic policy framework seeks to support this modal shift and change in working patterns. Policy SP7 (Sustainable Transport) and SP5 (Placemaking) are particularly relevant in this respect. Modal shift and car dependency is further discussed under the transport theme.
- 9.56 In terms of access to day-to-day services and facilities, Policy SP6 (Creating Healthy and Inclusive Places and Spaces) sets a range of development criteria to both improve health inequalities and social cohesion throughout the Vale.

⁹ Latest 2021 Census data indicates that 34% of the workforce work from home either part or full time

This is expanded upon with Policy SP12 (Community Infrastructure and Planning Obligations), which sets the requirements for ensuring all new developments in the Vale are supported by appropriate services and facilities to meet their needs and the needs of the existing community. This includes, but is not limited to, leisure, sport and recreation, community growing spaces, green infrastructure, community facilities, healthcare facilities, and public open space.

- 9.57 In terms of access to healthcare provision specifically, whilst the Vale of Glamorgan Council does not directly deliver healthcare facilities the Council does have a key enabling role, supporting the provision of health care facilities where opportunities exist. Policy SP6 therefore supports “*the provision of new and enhanced community and healthcare facilities*” and requires new development to “*protect existing public health and well-being.*”
- 9.58 It is recognised that the delivery of large housing/ mixed-use developments should have regard to whether there is a need to deliver appropriate health care facilities. This is particularly relevant where sites are developing in multiple phases during which time the demands created from a development may change. Notably Key Site North East Barry (Strategic Policy 4.1) includes “*the delivery of a village centre encompassing an appropriate mix of uses to be determined through the Masterplanning process.*” This process should include demonstrating the delivery of health facilities has been considered, particularly given the scale of growth (1,500 homes) and the phased delivery of homes throughout this plan period and the next.
- 9.59 It is also important to specifically touch upon the role holistic green infrastructure plays in delivering multiple health benefits to communities. This includes but is not limited to allowing for recreation and relaxation; promoting physical and mental health and well-being; facilitating learning opportunities; and enhancing local food production. Policy SP18 (Green Infrastructure) therefore requires all development to “*incorporate measures that protect and enhance high quality green infrastructure provision and maximise its functionality*”. This is likely to be strengthened through the delivery of five key sites, as landscape led masterplanning will likely facilitate the delivery of connected green infrastructure throughout the Strategic Growth Area.

Summary appraisal

- 9.60 The Preferred Strategy document recognises that the health and well-being of communities is crucially important to delivering long term sustainable development and placemaking. This includes physical, mental, and social well-being, with **significant long term positive effects** concluded at this stage.
- 9.61 Focussing growth in the most sustainable locations within the Strategic Growth Area therefore contributes positively to the health and wellbeing ISA topic. It ensures that residents have better access to active/ public transport and existing services and facilities, which are largely located in the Key Settlement of Barry and supporting Service Centre Settlements. This will likely present opportunities to link new development with the Vale’s existing walking and cycling network, in addition to green infrastructure, whilst also offering potential to secure enhancements to these networks through the development process.
- 9.62 Another key contributing factor to health and wellbeing is access to local greenspaces. The Preferred Strategy performs positively in terms of setting

requirements for provision of green infrastructure, and protecting and enhancing connectivity between green infrastructure assets. Key sites (Strategic Policies 4.1 – 4.5) are noteworthy in this respect.

Appraisal of cumulative effects

- 9.63 It is recognised that proposed growth in the Vale and wider Cardiff Capital Region has the potential to exacerbate health service capacity issues where they exist. In preparing the RLDP, the Council have been working closely with the Cardiff and Vale Local Health Board to identify future health and well-being issues, such as the need to identify locations for new health services. Collaboration between planning authorities and key infrastructure providers can ensure provision is fit for purpose, and can be co-ordinated and timed to support placemaking aspirations. It is noted that regional evidence in this respect is ongoing and will inform the deposit plan.
- 9.64 All local authorities in Wales have to produce maps of walking and cycling networks in their local area, known as Active Travel Network Maps (ATNM).¹⁰ The ATNM shows the active travel connectivity between the Vale and neighbouring authority areas, particularly Cardiff to the east and Bridgend to the west. In this respect, there are opportunities to strengthen cross boundary active travel infrastructure, delivering a coherent consolidated network with neighbouring authorities. Due to the Welsh Government's support for a modal shift to active travel, individual authorities are increasingly seeking to incentivise walking and cycling. These efforts will likely contribute towards cross-boundary working in this respect, delivering positive cumulative effects on the overall health and wellbeing of residents in the CCR.

Equalities, diversity, and inclusion

Appraisal of the Preferred Strategy

- 9.65 The focus of the equalities, diversity and social inclusion ISA topic is reducing poverty and inequality, tackling social exclusion and promoting community cohesion. Many aspects of equalities, diversity and social inclusion do not have a spatial dimension and are unlikely to be directly affected by the spatial distribution of growth through the Preferred Strategy. However, the overall level of provision of land uses such as housing and employment, which is set by the Preferred Strategy, will potentially affect underlying influences such as access to employment, housing and community facilities. In this respect it is considered that distributing growth to Barry as the Key Settlement, supported by the Service Centre settlements of Llantwit Major, Penarth and Cowbridge, will help to support and sustain a hierarchy of vibrant centres.
- 9.66 The Vale exhibits considerable socio-economic diversity, with parts of the rural Vale containing some of the most affluent communities in Wales and other communities falling within the highest 10% of most deprived areas in Wales. The Welsh Indices of Multiple Deprivation (WIMD) show that most deprived neighbourhoods in the Vale have persistently been in Barry, primarily within the eastern wards. The most recent WIMD data (2019) identified three areas as falling within the top 10% most deprived places in Wales (Gibbonsdown 2,

¹⁰ <https://www.valeofglamorgan.gov.uk/en/living/transportation/Active-Travel.aspx>

Buttrills 2, and Court 3), with other areas in Barry also falling within the top 20%. In addition, pockets of high deprivation are also present in areas of Penarth, St Athan and Llantwit Major. By focusing growth towards these settlements, the Preferred Strategy is anticipated to lead to positive effects, investing in these locations to help reduce deprivation.

- 9.67 In delivering both housing and economic growth in the Vale's most deprived areas, it is hoped that residents will be provided with improved employment opportunities, as well as the facilities and services they require to lead a more self-contained lifestyle. This includes improving open spaces and active travel routes, and supporting the provision of affordable housing and regeneration.
- 9.68 Through delivering growth in accordance with the settlement hierarchy, the Preferred Strategy will also support improved access to health and social care services. It is recognised through the Preferred Strategy document that this can be a more challenging issue for some parts of the Vale particularly given the ageing population, and the rural nature of the Vale aligned with poor public transport. Compliance with Policy SP6 (Creating Health and Inclusive Places and Spaces) will ensure that where possible these health inequalities are addressed. This includes, for example *"ensuring that all places and developments are as inclusive as possible, capable of adapting to a broad range of changing needs and delivering a high quality of life, where no one is excluded."*
- 9.69 Implementation of the Placemaking Principles will support the creation of adaptable, accessible, well-connected communities that have a strong sense of identity. Policy SP5 (Placemaking) requires that *"development proposals demonstrate placemaking principles"* to deliver multiple benefits. This includes *"Prioritising the determinants of health and well-being during the design process; and "strategically integrating Green Infrastructure networks and open space into development, delivering social benefits"*. It is considered that high standards of design will create attractive places with distinct local identity and a vibrant public realm offering accessibility for all. This is reflected through the key site strategic policies (4.1 – 4.5), where development is required to provide *"the provision and enhancement of appropriate green infrastructure, leisure, sport and recreation space"*.
- 9.70 In terms of access to housing, it is recognised that throughout the Vale, affordable housing need is most significant in communities where development opportunities are limited. A key aspect of the spatial strategy is therefore to allow for affordable housing led developments within primary settlements and minor rural settlements outside of the Vale of Glamorgan Strategic Growth Area. In line with Policy SP2 (Settlement Hierarchy), development will be supported where it is at a scale that is appropriate to the size of the community it is serving with the actual number of dwellings dependent on the local context. It is considered that this will provide opportunities for younger and working aged people, who may otherwise have had to move elsewhere within the Vale or the wider area to access housing, and to stay within their own communities. This will likely help maintain a balanced demographic structure within the minor rural settlements, with the potential for long term positive effects.
- 9.71 The Vale of Glamorgan Older Persons Strategy 'Creating Homes and Neighbourhoods for Later Life 2022-36' – highlights the importance of addressing future housing needs associated with an aging population through

the provision of appropriate housing solutions arising from a older population. To address need forecasted through the Older Person's Strategy, Policies SP3 (Housing Requirement) and SP4 (Key Housing Led Sites) make provisions for new housing developments to include specialist housing such as older persons housing as part of the overall mix with residential developments.

- 9.72 Policy SP9 (Gypsy and Travellers) seeks to ensure that the need identified through the latest Gypsy and Traveller Accommodation Assessment (GTAA) is met. In line with Policy SP9, land will be made available for 11 additional G&T pitches to be delivered over the plan period (9 pitches to 2026, and a further 2 pitches by 2036).
- 9.73 The Welsh language is part of the social and cultural fabric of Wales and the Welsh Government is committed to ensuring that the Welsh language is supported and encouraged throughout Wales. The 'key characteristics' section of the Preferred Strategy highlights the increase seen in Welsh language speakers from 2011 to 2021 (census data). Census identified that 11.5% of the population aged three or older could speak Welsh, representing an increase when compared with the 2011 Census. This is contrary to the trend experienced across Wales overall, where the number of Welsh speakers has decreased from 2011 to 2021. While this issue is currently absent from the Preferred Strategy strategic policy framework, it is considered that this will be further explored and addressed within the deposit plan.

Summary appraisal

- 9.74 The Preferred Strategy performs well in terms of directing growth to those areas of the Vale of Glamorgan identified as more deprived by the Welsh IMD, and addressing inequalities in these communities. This will help tackle inequalities and deprivation within the Vale by ensuring residents have access to employment, education, and services nearby.
- 9.75 The Preferred Strategy also seeks to address issues relating to equalities, diversity, and social inclusion by delivering affordable housing. This is a key objective of the strategy, reflecting high levels of need seen across many parts of the Vale. Notably the existing backlog of need from people on the housing waiting list is most acute within Barry and Penarth/Llandough, where housing is broadly focused.
- 9.76 Consideration is also given through the strategy to ensure that future housing makes provision for the specific accommodation needs of Gypsy & Travellers, elderly, and disabled people. For example, the strategy seeks to ensure that specialist housing forms part of a wider housing mix on allocated sites identified. It will also be important for new developments to be suitably located and enable easy access to shops and facilities of town and local centres. This includes "*contributing to a vibrant, safe, and inclusive public realm*" and "*creating a diverse mix of uses and multi-functional spaces.*" This is reflected through a number of the strategic policies as discussed above.
- 9.77 Finally, the deposit plan should seek to address the conditions which are essential to the Welsh language, and which contribute to its use. This is in accordance with national policy, which highlights "*the Welsh language is part of the social and cultural fabric and its future well-being will depend upon a wide range of factors, particularly education, demographic change, community*

activities and a sound economic base to maintain thriving sustainable communities and places.”¹¹

9.78 **Minor positive effects** are therefore concluded overall at this stage.

Appraisal of cumulative effects

- 9.79 There is a degree of crossover between this topic and other ISA topics, particularly in relation to the role of affordable housing and educational opportunities in tackling deep-rooted poverty and deprivation. In this respect, the fact that Vale of Glamorgan and its neighbouring local authority areas are all proposing to meet or exceed their identified housing needs is a positive. In short, this will likely provide the opportunity to meet complex housing needs within particularly deprived communities. Overall effects will also be better informed by the next plan iteration which will include small and medium sites and rural development site.
- 9.80 Additionally, it is recognised that the proposed enhancements to regional public transport through the CCR City Deal, South Wales Metro rollout, and possible new station at St Athan, will potentially improve access to employment and training opportunities, as well as key services and facilities. Increased accessibility may lead to a reduction in social exclusion, which is a key contributor to deprivation.
- 9.81 It is considered that the RLDP will, insofar as it is able, give effect to measures which foster the development and use of the Welsh language. Alongside similar efforts from neighbouring authorities, this has the potential to help Future Wales meet its goal of reaching a million Welsh speakers, as well as increasing the percentage of people who speak Welsh daily by 10% by 2050.¹²
- 9.82 Overall, it is considered that cumulative effects in relation to equalities, diversity and social exclusion are likely to be minor. Whilst some aspects of this ISA topic are addressed at a local level, the collective actions of the local authority areas at a regional scale are likely to deliver similar benefits, or potentially even greater benefits, from all the investment being stimulated through the City Deal.

Climate change

Appraisal of the Preferred Strategy

- 9.83 In July 2019 the Vale of Glamorgan Council joined with Welsh Government and other Councils across the UK in declaring a global ‘climate emergency’. Closely linked to the declaration of a climate emergency, in July 2021 the Vale of Glamorgan Council declared a ‘nature emergency’ and committed to a target of no net loss to biodiversity in the Vale of Glamorgan. The narrative below explores in turn how the Preferred Strategy responds to climate change adaptation and mitigation.
- 9.84 When considering effects of the emerging RLDP in relation to climate change adaptation, it is recognised that the ISA will be better informed by the next plan iteration which will include small and medium sites and rural development site.

¹¹ Planning Policy Wales (2021) https://www.gov.wales/sites/default/files/publications/2021-02/planning-policy-wales-edition-11_0.pdf

¹² Welsh Government (2021) Update to Future Wales – The National Plan 2040
<https://www.gov.wales/sites/default/files/publications/2021-02/future-wales-the-national-plan-2040.pdf>

Consideration is however given to the Key Sites which have been introduced at this stage. Furthermore, it is recognised that as a coastal authority climate change will have undoubtedly impact on the Vale's coastline and the communities within coastal areas; responding to sea level rise and storms leading to flooding and coastal erosion. It is noted that Natural Resources Wales Communities at Risk Register estimate that there are approximately 5,000 residential properties in the Vale currently at some level of flood risk. A Strategic Flood Consequences analysis has been carried in collaboration with the other ten south east Wales Local Authorities to consider this and will inform the deposit plan.

- 9.85 While flood risk from rivers is broadly confined to the Vale's rural areas, flood risk does exist to differing extents in Cowbridge, Dinas Powys and eastern Barry. Only some of these areas benefit from being within TAN15 Defended Zones, and there are other areas with no significant protection. From the sea, where flood risk exists in residential areas, namely Barry and Penarth Marina, these are included within TAN15 Defended Zones. Barry Docks and Aberthaw Power Station are at risk from tidal flooding and are not located within TAN15 Defended Zones. Therefore, further consideration will have to be given to the implications of flooding in these locations ahead of the deposit plan, for development to be considered acceptable.
- 9.86 It is noted that areas at risk of flooding identified above fall within the Strategic Growth Area, where housing and employment growth is focussed. While this broadly presents the potential for adverse effects, it is noted that development proposals will have to ensure compliance with TAN15, ensuring development does not take place in locations with unacceptable flood risk.
- 9.87 In terms of specific site allocations, while small, medium and rural sites are not included within the Preferred Strategy, Key Site allocations (Strategic Policies 4.1 – 4.5) which make up a considerable proportion of growth have been identified. In terms of risk of flooding, Land at North East Barry and Land North of Dinas Powys include areas (up to 20% of the site) within Flood Zone 2. The strategic policies associated with the aforementioned sites therefore seek to ensure that infrastructure and planning obligations are met in line with Policy SP12 (Community Infrastructure and Planning Obligations). This includes ensuring that *"where appropriate, environmental protection and enhancement such as flood prevention is delivered"*.
- 9.88 All development proposals, including Key Sites, will also be required to align with the requirements of Policy SP15 (Climate Change Mitigation and Adaptation) which requires proposals to *"redirect development away from areas of flood risk and ensure that new development suitably controls surface water run-off through the use of sustainable drainage systems and nature-based solutions."* While a level of uncertainty exists without details such as site layout and masterplanning, is considered that in line with policy requirements, key sites should suitably avoid and mitigate flood risk.
- 9.89 In terms of surface water flooding, all key sites with the exception of 'Land adjacent to Church Farm' are constrained to an extent (up to 20% of each site being at risk). However as above, it is considered that this should be suitably mitigated in line with the emerging strategic policy framework, as well as national level policy and guidance.

- 9.90 When considering climate change mitigation, it is noted that in 2019 the Vale of Glamorgan accounted for approximately 5% of Wales' carbon emissions, with 8.4 tonnes of CO₂ per capita. While emissions are reducing over time, the Preferred Strategy document highlights that emissions will have to reduce significantly during the plan period to achieve net zero targets. Policy SP15 therefore sets extensive mitigation requirements, notably including ensuring that new development proposals *"maximise the opportunities for renewable energy development, specifically in local search areas, to provide 70% of projected electricity demand by 2036."*
- 9.91 Another key criteria of Policy SP15 is to ensure new development proposals *"include Sustainable building design principles, incorporating passive building techniques where possible"*. It is considered that this will maximise resource efficiency and sustainable construction techniques, and promote circular economy principles. Opportunities in this respect are likely to be greatest in relation to the Key Sites where development is strategic in scale. As a broad generalisation, strategic growth locations can support a good mix of uses within a given area (supportive of climate change mitigation objectives) and lead to economies of scale that enable delivery of new or upgraded infrastructure (transport, community, low carbon heat/power, green etc.).
- 9.92 It is considered that Key Sites perform positively in respect of the above, with policy requirements notably including a range of infrastructure to meet local needs. Furthermore, Key Sites are situated in a sustainable location and will maximise opportunities for active/ public transport. It is considered that further detail will be explored further through the masterplanning process, to inform deposit stage.
- 9.93 Recognising the role the Vale plays in the economic growth of the region, Policy SP13 (Employment Growth) identifies two Employment Regeneration Areas which will be supported for Low and Zero Carbon related employment and infrastructure proposals. This will support objectives for climate change and greening the Vale's economy, facilitating the growth in renewable and low carbon energy production and businesses.
- 9.94 It is necessary to touch upon the tension between the emerging RLDP's climate change objectives and the intention to support Cardiff Airport, given that aviation emissions are a significant global contributor to climate change. The Climate Change Committee (2023) highlight in their 2023 Progress Report¹³ that *"the Wales Transport Strategy commits to maintaining aviation capacity in Wales, whilst recognising the challenges this creates for meeting decarbonisation targets."* Furthermore, *"There is no aviation pathway for Wales that describes how the aviation sector will be decarbonised in line with Wales's Carbon Budgets and the Net Zero target."* The Report recommends that *"The Welsh Government should set out an aviation decarbonisation pathway to 2050, how it will be accommodated in Welsh Carbon Budgets and how Wales will prepare for the roll-out of new technologies."* While it is recognised that this is a national issue, it should nonetheless be referred to within the deposit plan.
- 9.95 Finally touching on the wider policy framework, many are of note in relation to meeting climate change objectives, including:

¹³ <https://www.theccc.org.uk/wp-content/uploads/2023/06/Progress-Report-Reducing-emissions-in-Wales.pdf>

- Policy SP7 (Sustainable Transport) ensures that new development “*provide the necessary infrastructure for ULEVs in appropriate locations*”, alongside more broadly “*improving accessibility and connectivity to sustainable transport facilities.*”
- Policy SP5 (Placemaking) requires proposals to demonstrate Placemaking Principles, such as “*contributing to a vibrant, safe, and inclusive public realm that encourages active travel and reduces car dependency; and strategically integrating Green Infrastructure networks.*”
- Policy SP18 (Green Infrastructure) requires proposals to “*employ nature-based solutions, including the Building with Nature Standards, where possible*”.

Summary appraisal

9.96 While flood risk from rivers is broadly confined to rural areas, flood risk exists to differing extents in Cowbridge, Dinas Powys and eastern Barry. The southern coast of the Vale is susceptible to varying degrees of coastal erosion and flood risk, and therefore focussing growth to the Strategic Growth Area could lead to development in areas of risk. However, without specific site allocations, with the exception of the key sites, it is challenging to draw detailed conclusions in this regard. It is therefore important to draw attention to higher level planning policy and guidance. This includes Planning Policy Wales and Technical Advice Note 15, which requires development to be directed away from the highest risk areas. It is therefore reasonable to conclude that the Preferred Strategy will likely, where possible, direct growth towards sites with low flood risk, particularly in the context of Policy SP15 (Climate Change Mitigation and Adaptation), which raises the issue of flood risk.

9.97 Furthermore, where Key Sites are constrained by a level of flood risk (less than 50% of the site within Flood Zone 2), it is considered that higher level policy, alongside forthcoming masterplanning, and site specific policy requirements, should suitably mitigate any adverse effects. This includes ensuring that a sequential approach is taken to ensure that development does not take place in areas at high risk of flooding when appropriate areas of lower risk are reasonably available. However airing on the side of caution, **uncertainty is concluded at this stage in relation to climate change adaptation.**

9.98 Regarding climate change mitigation, the distribution of growth to the Principal and Local Centres could theoretically maximise the potential to seek strategic scale opportunities for delivering innovative renewable energy generation. This is particularly true for Key Site North East Barry, which will deliver 1,500 homes alongside a range of infrastructure. Positive effects in this respect could also be delivered through other Key Sites (ranging from 250 to 600 homes). Proposed Key Site policies notably promote a range of new housing and employment in sustainable locations with good access to employment, public transport, community facilities and shops. It is likely that opportunities to further reduce energy consumption could be explored through site specific masterplanning which will inform the deposit plan.

9.99 More broadly it is noted that the Preferred Strategy supports regeneration opportunities, including safeguarding land at the former Aberthaw Power Station as a green energy hub. Aberthaw offers a unique opportunity to create

high skilled jobs, whilst making a significant contribution toward mitigating climate change.

- 9.100 **Uncertainty is also concluded for climate change mitigation at this stage.** A key question being how the Preferred Strategy seeks to capitalise upon Cardiff Airport, and the challenges this creates for meeting decarbonisation targets/ commitments. It is considered that this will be explored further within the deposit plan.

Appraisal of cumulative effects

- 9.101 In terms of climate change adaptation, there does not appear to be notable potential for negative cumulative effects from development in the Vale in combination with development in neighbouring local authority areas. As a coastal authority climate change will have a dramatic impact on the Vale's coastline and the communities within coastal areas. This extends to neighbouring authorities Cardiff and Bridgend, and the communities extending further along the coastline. However, there is a presumption within Planning Policy Wales against development in high-risk flood zones, which is augmented by Technical Advice Note 15 (TAN15). This will help ensure that development in the Vale of Glamorgan will be part of a regional and national picture of development which is directed away from areas at high risk of flooding. Nonetheless, given the number of properties within the Vale currently at risk of flooding (Natural Resources Wales), cumulative effects are likely to be negative. There is however a level of uncertainty at this stage.
- 9.102 In terms of climate change mitigation, there is further potential for cumulative effects. As noted under other ISA topics, positive cumulative effects are anticipated from the proposed South East Metro throughout the CCR. This includes enhanced rail connectivity between Barry and Cardiff, and improved bus services throughout the region. This will likely contribute to a modal shift away from the private car and towards more sustainable modes of transport.
- 9.103 It is also recognised that the preferred strategy seeks to promote development in the Strategic Growth Area, an area that accommodates the main centres of population and urban settlements that are served by a range of facilities and services and are accessible by a range of transport modes. This will further support modal shift and regional connectivity.
- 9.104 The CCR City Deal outlines an ambition for the ten authorities in the region to come together to deliver strategic solutions, including the generation and use of renewable energy. The City Deal identifies that regional development will present opportunities to deliver "*renewable energy-led regeneration and housing programmes*". In this context, there is potential for positive cumulative effects, particularly as larger-scale development offers a greater opportunity to incorporate low carbon energy.

Transport and movement

Appraisal of the Preferred Strategy

- 9.105 A key priority of Wales Transport Strategy is to bring services to people in order to reduce the need for people to use their cars. The Preferred Strategy supports this objective, locating major new development in places that are well

served by services and facilities in accordance with the findings of the sustainable settlement appraisal review.

- 9.106 Within the Strategic Growth Area, new housing and employment is concentrated in locations that are served by public transport routes and provide the opportunity to enhance sustainable transport connectivity. This includes settlements of Penarth and Cogan, Dinas Powys, Barry, Rhoose and Llantwit Major. The Strategy ensures that new residential development has access to local facilities and centres of employment to support self-containment, while also providing access to the strategic rail and road network. This will connect residents with other regional employment hubs nearby, most notably capitalising upon the strong relationship with Cardiff as a designation for employment.
- 9.107 Focusing growth to St Athan and the wider area also seeks to utilise the anticipated new station at St Athan. The proposed station is currently being considered through the Welsh Transport Appraisal Guidance (WelTAG) business case process. If successful, the station would facilitate significant sustainable travel uptake, particularly for nearby business locations such as Bro Tathan Enterprise Zone and the proposed Aberthaw Green Energy Park.
- 9.108 While the Vale of Glamorgan benefits from good transport connectivity by both rail and road, the strategic network experiences congestion at peak hours. Policy SP7 (Sustainable Transport) therefore seeks to address sustainable travel choices in the Vale, setting out the approach for encouraging modal shift. In line with Policy SP7, new development *“must support an enhanced transport network that increases the proportion of journeys being undertaken by sustainable travel modes.”* One way in which this will be achieved is by *“supporting and facilitating the delivery of the South Wales Metro.”* This is anticipated to support objectives of Llwybr Newydd, the Wales Transport Strategy (2021) which sets a target for 45% of journeys to be made by public transport, walking and cycling by 2040.
- 9.109 Alongside strategic policy direction, Key Sites have been identified where they will be able to limit the need to travel, and seek to offer a choice with the priority being on walking, cycling and passenger transport. These strategic (key) sites (250 to 1,500 homes) are broadly within walking and cycling distance of centres, and connect well to the Vale’s existing and proposed rail stations as part of the South Wales Metro. Notably Key Site Land North East of Barry is required through Strategic Policy 4.1 to provide *“on and off-site measures to provide good quality, attractive, legible, safe and accessible pedestrian and cycle linkages to local services, facilities and public transport nodes, including to Cadoxton Station.”* It is also noted that given the scale of growth proposed at Key Sites, the provision of supporting infrastructure (as set out within the detailed policies) will further support self-containment and reduce reliance on the car for day-to-day needs. Similar requirements are set for a number of other Key Sites, supporting active travel uptake where possible.
- 9.110 It is noted that there is relatively limited public transport availability in the more remote rural areas and between the Vale’s main towns. Limiting growth to these locations through the Preferred Strategy will further limit future residents from adopting unsustainable travel behaviours, leading to positive effects. However, restricting growth could further restrict accessibility to facilities and services,

leading to increased reliance on the private vehicle and increased levels of congestion.

- 9.111 While growth is limited to the rural areas, some level of growth will be directed to these locations, and in line with the strategic policy framework development will be required to support connected places. Notably Policy SP5 (Placemaking) requires that “*development proposals demonstrate placemaking principles*” to deliver multiple benefits. This includes “*Contributing to a vibrant, safe and inclusive public realm that encourages active travel and reduces car dependency.*”
- 9.112 Other relevant policies in this respect include Policy SP12 (Community Infrastructure and Planning Obligations), which seeks to ensure the delivery of new and improved community infrastructure including transport infrastructure and facilities for pedestrians, cyclists, public transport, and vehicular traffic; and Policy SP18 (Green Infrastructure), which states that all development proposals must protect and enhance connectivity between green infrastructure assets.
- 9.113 Finally, it is important to touch upon the behavioural shift in people’s commuting patterns, which has arisen in response to the Covid-19 pandemic. Changing habits in this respect are supported through the Preferred Strategy and its attempt to ensure the sustainable co-location of land uses within the Strategic Growth Area. In doing so, it encourages the continuation of increased cycling and walking, and home working patterns as highlighted through Building Better Places.
- 9.114 However, while the supporting text of the Preferred Strategy highlights that digital connectivity will continue to play an important role in enabling agile working and facilitating economic growth, this is not present within the Preferred Strategy policy framework. It is recommended that this is considered ahead of the deposit plan, to support continued home working patterns and reduced peak time congestion on the Vale’s strategic roads.

Summary appraisal

- 9.115 The Preferred Strategy gives great weight to the sustainable transport network and the importance of directing growth to locations which can either integrate with the existing network or enhance it by strengthening links with key services and facilities. Development is focused to the Strategic Growth Area, which includes the settlements of Penarth and Cogan, Dinas Powys, Barry, Rhoose and Llantwit Major; all locations that are well served by existing and proposed rail stations as part of the South Wales Metro and in areas with good bus links.
- 9.116 The Preferred Strategy also performs well through allocating key strategic sites that are broadly within walking and cycling distance of centres, as this will reduce the need to travel. Additionally, given the scale of key sites, positive effects are likely to be delivered through infrastructure provision, improved connectivity, and increased levels of self-containment.
- 9.117 Key Site policies also specifically seek to ensure sustainable transport accessibility, capitalising on the Vale’s strategic location within the Cardiff Capital Region, adjacent to employment, retail and entertainment hubs such as Cardiff. Being well served by the rail network will facilitate journeys being made

by means other than the car, addressing congestion issues experienced on the strategic network at peak times.

- 9.118 **Minor positive effects are therefore concluded overall**, supporting transport objectives at the local and regional level. Notably, this will lead to positive knock-on effects for the health and wellbeing and climate change ISA topics by encouraging healthy travel choices and reducing congestion resulting from private car usage, thus reducing associated carbon emissions.

Appraisal of cumulative effects

- 9.119 There is potential for both positive and negative cumulative effects in relation to the transport and movement ISA topic, particularly in relation to cross boundary roads and railways, which stand to be impacted by development both within the Vale of Glamorgan and the wider South East Wales region.

- 9.120 The nature of the Vale's settlement patterns means that residents within the main towns and settlements are better able to access a range of facilities by walking, cycling and public transport, and the Council continue to improve active travel network within and between settlements. However, there is relatively limited public transport availability in the more remote rural areas and between the Vale's main towns, which limits accessibility to facilities and services, particularly for disadvantaged groups. As such a high reliance on the private vehicle remains, particularly in the rural settlements.

- 9.121 In respect of the above, improvements to cross-boundary public transport connections will be vital for encouraging residents to make a modal shift from the private car to use of trains and public buses. The South Wales Metro is key in this respect, being part of the original CCR City Deal, with over half of the City Deal total funding ring-fenced for Metro development. The Metro aims to provide an integrated network of active, bus and rail travel that will improve accessibility and make sustainable transport across and throughout the region easier and faster. Notably, the Vale has benefitted from 'Metro Plus' funding for the development of a new interchange at Barry Docks.

- 9.122 It is considered that a modal shift is likely to result from delivering a reliable, easy to use and well-integrated active and public transport network across the South East Wales region, which will require collaboration across the relevant local authorities. In this respect, sustainable transport is a key theme of the neighbouring local authority area's LDPs, particularly Cardiff and Bridgend which are key transport hubs.

- 9.123 The Vale of Glamorgan rail line crosses the southern part of the Vale, linking Cardiff and Bridgend to the settlements of Penarth and Cogan, Dinas Powys, Barry, Rhose and Llantwit Major. There are currently four services an hour between Barry and Cardiff Central and an hourly service between Barry and Bridgend, although the frequency of this service is due to increase by 2025. There are also branch lines to Penarth and Barry Island. Targeting new development to the settlements that are served by the rail network is a key part of the strategy, as it will facilitate journeys being made by means other than the car.

- 9.124 In terms of the strategic transport network, strategic highways network suffers from congestion at a small number of strategic bottlenecks, with a high

proportion of journeys in and out of the Vale made by car. The A4055 through Dinas Powys is a key problem area of the regional road network because of the scale of traffic and associated congestion. Other major strategic transport routes include the A4050 Port Road (connecting Cardiff Airport through Barry to the transport interchange at Culverhouse Cross and the M4) and the A48 Bridgend to Culverhouse Cross (a major strategic transport route that connects Bridgend to Cardiff and the rural Vale to Cardiff and the M4). Cumulatively, it is considered that growth proposed through the emerging RDLP alongside the emerging RLDP of neighbouring authorities, could have an adverse effect on the road network, particularly where growth is focused away from the key sustainable transport nodes.

- 9.125 It is recognised that the Wales Transport Strategy seeks to tackle traffic congestion identified above by securing improvements to the strategic highway corridors for commuters who may need to travel by car as well as providing better infrastructure for freight. It also seeks to address the key road safety priorities for the Vale. The Transport Strategy supports proposals for the Cardiff Metro (discussed above) and will inform future regional transport planning work.
- 9.126 Overall, cumulative effects in relation to public transport are projected to be largely **positive**, particularly in response to the CCR's City Deal and the South East Metro, which will bolster cross-boundary connectivity in South East Wales.

Natural resources

Appraisal of the Preferred Strategy

- 9.127 There are currently no Air Quality Management Areas within the Vale of Glamorgan; the Vale complies with regulations to protect human health and currently meets relevant air quality objectives. However this will continue to be monitored throughout the RLDP period as the Vale has one of the highest levels of man-made air pollution in Wales. Air emission scores are much higher in the south and east of the county, including Barry, where population densities, traffic volumes and proximity to heavy industry are higher than in the more rural areas of the Vale of Glamorgan.
- 9.128 It is considered that focussing growth to the key and service centre settlements within the Strategic Growth Area could exacerbate the poor conditions identified above. For example whilst Barry is a more accessible location, there will inevitably be more cars on the road as a result of strategic development. Conversely, the Preferred Strategy also presents an opportunity to lead to positive effects, supporting a level of self-containment due to the sustainable settlement locations. Notably, Barry is identified through the Preferred Strategy as one of the most sustainable locations within which to focus major new development opportunities. Directing strategic growth to the town will contribute positively towards addressing man-made air pollution concerns identified above. Notably key site North East Barry is allocated for *“a residential led development comprising residential, community facilities including a primary school, commercial uses, green infrastructure and leisure facilities and improved active travel routes.”* Furthermore, site specific requirements include *“improvements to infrastructure, including the upgrading of highways, pedestrian and cycle access from Gilbert Lane and Argae Lane.”*

- 9.129 Key sites are also located near existing sustainable transport nodes (notably train stations), and therefore the Preferred Strategy further performs well in terms of reducing vehicular use. Other policies of relevance to air quality include Policy SP7 (Sustainable Transport), Policy SP15 (Climate Change Mitigation and Adaptation), Policy SP5 (Placemaking), and Policy SP12 (Community Infrastructure and Planning Obligations) which also support active travel, and address the issue of vehicular emissions on air quality. Hence, the Preferred Strategy performs positively in relation to the ISA objectives to *“identify and pursue any opportunities to reduce, or at least, minimise population exposure to air pollution.”*
- 9.130 Reflecting its rural nature, approximately 85% (28,132 hectares) of the Vale is agricultural land, largely classified as Grade 2 or Grade 3.¹⁴ Areas of high-quality agricultural land (Grade 1 and 2) exist to the north and central Vale, notably around Bonvilston, east of Cowbridge, and in the north eastern corner of the Vale around St Bridges Major and Corntown. However, it is recognised that this is predictive data, and a level of uncertainty therefore exists without full surveys being carried out. The Preferred Strategy broadly avoids new development at these locations, likely limiting the loss of productive agricultural land. It is however noted that further uncertainty also exists given the Preferred Strategy is not underpinned by a full suite of site allocations.
- 9.131 Where key sites have been identified, two (North East Barry and Church Farm, St Athan) include areas of high quality agricultural land. While the delivery of mixed use development at the sites could lead to loss of this resource, it is likely that where possible, any loss will be reduced through the masterplanning process. Furthermore, it is recognised that a key objective of the Preferred Strategy is to *“prioritise previously developed brownfield land for new development, safeguarding the sensitive natural environment from inappropriate development.”*
- 9.132 This aligns with Planning Policy Wales, which identifies a search sequence for the allocation of land with previously developed (brownfield) and under-utilised sites being considered in the first instance. While there are limited opportunities for further significant brownfield development in the Vale of Glamorgan, development is broadly targeted in the most sustainable locations on the edge of settlements. Nonetheless, Key Sites are largely greenfield in nature, which would see a loss of this resource. While effects are largely uncertain at this stage without detailed masterplanning and a full suite of site allocations, it is recommended that the brownfield first approach be adopted within RLDP policy.
- 9.133 The Vale of Glamorgan is an important contributor to the regional supply of minerals and includes several active mineral sites. The Council therefore has the responsibility for ensuring that the active mineral sites are located away from the strategic growth area, with the exception of a large active quarry site located between St Athan and Rhoose. As the exact location of site allocations is currently unknown, potential effects are therefore uncertain. However the Preferred Strategy performs well in terms of broadly directing growth away from mineral sites. Furthermore, in terms of the Key Sites, none overlap with mineral safeguarding sites, or within close proximity.

¹⁴ Predictive Agricultural Land Classification (ALC) mapping

- 9.134 It is considered that the emerging RLDP will provide for a continued supply of minerals during and beyond the period covered by the RLDP. Policy SP17 (Sustainable Provision of Minerals) performs positively in this respect, setting out how the local and regional need for the provision of a continuous supply of minerals will be achieved.
- 9.135 The major streams of waste arising in the borough include municipal or local authority collected (including household); commercial and industrial; construction, excavation, and demolition; and hazardous. Policy S16 (Sustainable Waste Management) identifies how the emerging RLDP will steer the sustainable management of waste. This will be achieved by promoting and supporting additional sustainable waste management facilities, measures, and strategies in accordance with the waste hierarchy; and supporting the circular economy, amongst other things.
- 9.136 In relation to water resources, water quality within the Vale is generally good (including bathing waters). Nonetheless, it is considered that the Preferred Strategy policy framework could set a requirement for proposals to ensure that potential negative effects on the quality of rivers, resulting from development, is mitigated.
- 9.137 While water resources will be managed at a higher level through the WRMP, Policy PS6 (Climate Change) performs positively, requiring new development proposals to *“maximise water efficiency and minimise adverse impacts upon quality of water resource.”*

Summary appraisal

- 9.138 The Preferred Strategy seeks to minimise the need to travel, particularly by the private car, and capitalise upon opportunities to promote active/ public transport by directing development to the most sustainable locations south of the Vale. Furthermore, strategic Key Sites perform well in terms of delivering mixed-use development that connect well with transport nodes and promote self-containment. The Preferred Strategy will therefore help to reduce the impact of transport-based emissions, delivering improvements in air quality, and contributing towards the Vale’s recovery from the Covid-19 pandemic.
- 9.139 The broadly rural nature of the Vale (85% agricultural land) will nonetheless likely see some existing reliance on the private car for travel, which could exacerbate air quality issues. However it is noted that air quality in the Vale is not a significant issue, reflecting the absence of AQMAs.
- 9.140 The Preferred Strategy highlights that where possible, the use of brownfield land for development will be prioritised, although it is recognised that such opportunities are limited in Vale of Glamorgan. It is recommended that policy requirements be included in the deposit plan to ensure a brownfield first approach, and to prevent the loss of productive agricultural land where possible. The Preferred Strategy performs negatively in this respect, reflecting the key strategic sites which are constrained by high quality agricultural land, and broadly focussed on greenfield land. A level of uncertainty also exists, reflecting the absence of all site allocation locations, and masterplanning for Key Sites.

- 9.141 In terms of mineral and water resources, neutral effects are concluded, with an element of uncertainty. This is given that while mineral resources are protected and supply met, growth could be directed close to mineral sites. Moreover, the higher-level policy frameworks in place, including Welsh Water's WRMP23, provide a greater degree of protection for these resources.
- 9.142 Whilst there is a need to conserve natural resources, it is recognised that the extent of growth proposed through the Preferred Strategy will result in at least a degree of loss of these resources. A key issue of concern is the loss of greenfield, agricultural land; however, this is largely unavoidable given the limited availability of brownfield land in the Vale. Nevertheless, **significant negative effects** are considered likely given the level of growth proposed through the Preferred Strategy, particularly Key Sites on the settlement edges. However, given only key sites have been allocated at this stage, a level of uncertainty is noted.

Appraisal of cumulative effects

- 9.143 Air quality in the Vale is ultimately impacted by commuters across the wider region. Therefore, there is potential for negative cumulative effects concerning air quality. This is especially true if neighbouring local authority areas fail to reduce private car usage, which could counteract any efforts made in Vale of Glamorgan due to in-commuting. Nevertheless, all local authority LDPs within the CCR seek to improve air quality through various transport and climate change related strategies and policies. Of particular note are the City Deal and South Wales Metro, which will encourage the uptake of sustainable transport across the wider region. In this respect, negative effects are not anticipated with regard to air quality. Nevertheless, the existing reliance on private car is unlikely to disappear, and in this respect minor negative effects are possible.
- 9.144 There is the potential for a cumulative loss of greenfield land, as well as productive agricultural land in other local authority areas, as a result of development across the South East Wales region. In this respect, negative cumulative effects are considered likely regarding land resources.
- 9.145 Development proposed through the emerging RLDP has the potential to interact with development proposed in other local authority areas, leading to both negative and positive cumulative effects on water resources. Notably, water resource and wastewater treatment capacity are generally managed at a catchment level, with Natural Resources Wales, Welsh Water, and wastewater service providers working closely together to monitor the situation and plan ahead to meet predicted demands. The supply/ demand position set out within the latest WRMP24¹⁵ forecasts that the South East Wales Conjunctive Use System (SEWCUS) zone will be in a water resource deficit up to 2050. While it is recognised that the WRMP explores options to overcome resource deficit in local areas, at this stage it is considered that the Preferred Strategy could lead to negative cumulative effects on water resources.

¹⁵ <https://www.dwrcymru.com/en/our-services/water/water-resources/draft-water-resources-management-plan-2024>

Biodiversity and geodiversity

Appraisal of the Preferred Strategy

9.146 In terms of biodiversity and geodiversity, the impacts will ultimately be dependent on the precise location of development. There are two sites in the Vale designated as European sites under the Habitats Directive: the Severn Estuary, which is identified as a RAMSAR site, a Special Area of Conservation (SAC), and a Special Protection Area (SPA); and Dunraven Bay SAC. The Kenfig SAC also abuts the Vale to the East.

9.147 A Habitats Regulations Assessment (HRA) has been carried out for the pre-deposit plan (August 2023). For most combinations of European site and impact pathway it was possible for the HRA to conclude that there would be no likely significant effect, or adverse effect on integrity, either alone or in combination with other projects and plans. The exceptions were the following:

- Recreational pressure at Severn Estuary SPA/SAC/Ramsar site;
- Surface water runoff impacts on Severn Estuary SPA/SAC/Ramsar site;
- Water quality (treated sewage effluent and surface runoff) impacts on Kenfig SAC;
- Loss of functionally-linked habitat associated with Severn Estuary SPA and Ramsar site; and
- Construction-related visual and noise disturbance of Severn Estuary SPA and Ramsar site.

9.148 This conclusion was based on analysis of all policies in the Preferred Strategy RLDP, and its key sites, and cognisance of the fact that additional smaller allocations would be added for the Deposit Plan. The impacts were associated with policies SP1 (Growth Strategy), Policy SP2 (Settlement Hierarchy), Policy SP3 (Housing Requirement), Policy SP4 (Key Housing-Led Sites), Policy SP 4.1 (North-East Barry), Policy SP4.2 (Land to the North of Dinas Powys, Off Cardiff Road), Policy SP4.3 (Readers Way, Rhoose), Policy SP4.4 (Church Farm, St Athan), Policy SP4.5 (Land to the West of St Athan), Policy SP9 and Policy SP14 (Sustainable Tourism); with further justification is provided through the HRA.

9.149 To address the potential adverse effects on integrity, a number of recommendations were made, which are wholly supported by the SEA. Specifically, the HRA suggest exploring collaboration with other authorities in the core recreational catchment of the Severn Estuary SAC / SPA / Ramsar, to develop and deliver a regional mitigation solution. Other recommendations include policy additions and gathering of further evidence to inform the deposit plan.

9.150 Policy SP19 notably seeks to ensure that UK/European protected species and habitats are protected in accordance with statutory requirements, and also must “*protect the integrity of statutory and non-statutory designated sites*”. It is likely that this policy will be a focus for updates, adopting specific avoidance measures and mitigation detailed within the HRA recommendations.

- 9.151 There are a range of national designations also present within the Vale, including 27 Sites of Special Scientific Interest (SSSIs). Spatially, the SSSIs are mainly concentrated in the south east, west, and north, with 11 within and surrounding Barry. Ancient Woodland is also prevalent throughout the Vale, with significant areas in the north and south east. In terms of the Preferred Strategy Key Sites, North East Barry overlaps very slightly with Barry Woodland SSSI, which is also Ancient Woodland. Land at Readers Way is also constrained by nationally designated biodiversity, being 800m from East Aberthaw Coast SSSI. It is considered that these Key Sites have the potential to cause disturbance, and habitat loss in the case of North East Barry, to the biodiversity sites in the absence of suitable mitigation measures. While the requirement to take account of the biodiversity duty may mitigate effects to some extent, Key Site policies could be updated to include specific reference to designated sites nearby, establishing appropriate protection/ enhancement measures. This recommendation is more so directed at North East Barry where the key site intersects with an SSSI/Ancient Woodland.
- 9.152 In terms of locally important biodiversity, there are three Local Nature Reserves (LNR) designated within the Vale, located within Barry and Porthkerry. There are also over 360 Sites of Importance for Nature Conservation (SINCs) (also known as Local Wildlife Sites [LWSs]) designated within the Vale. Key Sites are not particularly constrained by locally designated biodiversity, with the exception of North East Barry which is adjacent to an area of traditional orchard (Priority habitat).
- 9.153 While not constrained, it is noted that the strategic scale of the site provides opportunities to conserve and enhance biodiversity through landscape led masterplanning. This is reflected in the Key Site policies, which set requirement for *“the provision and enhancement of appropriate green infrastructure, leisure, sport and recreation space together with biodiversity enhancement to achieve biodiversity net benefit.”*
- 9.154 When considering the wider Preferred Strategy, it is highlighted that growth is broadly directed towards constrained settlements (i.e. Barry and to a lesser extent Penarth) in respect of locally and nationally designated biodiversity. The Preferred Strategy therefor has the potential to lead to negative effects, although it is recognised that a level of uncertainty exists in the absence of Key Site masterplanning and wider site allocations. It is considered that potential effects will be better informed with the next plan iteration.
- 9.155 Consideration is however given to the strategic policy framework which seeks to protect and enhance the local biodiversity resource, and responds to the declared nature emergency. Notably Policy SP19 (Biodiversity and Ecosystem Resilience) seeks to safeguard designated areas and where possible take advantage of opportunities to create new ecological networks. Policy SP12 sets out the requirements for ensuring all new developments in the Vale of Glamorgan are supported by appropriate infrastructure to meet their needs and the needs of the existing community. This includes biodiversity enhancement, alongside green infrastructure.
- 9.156 Policy SP18 (Green Infrastructure) requires proposals to *“protect and enhance connectivity between green infrastructure assets”* and *“achieve biodiversity net benefit.”* In terms of green assets, it is noted that a Green Infrastructure Assessment has been completed to facilitate a robust and

proactive approach to enhancing biodiversity, increasing ecological resilience, and improving well-being outcomes. The Green Infrastructure Assessment will inform the masterplanning of sites allocated in the RLDP, which will subsequently be considered at deposit stage.

Summary appraisal

- 9.157 Without the location of all sites underpinning the Preferred Strategy, it is difficult to draw any definitive conclusions in relation to the nature and significance of effects on this ISA topic.
- 9.158 In terms of nationally and locally designated biodiversity, the allocation of key strategic site North East Barry has the potential to lead to adverse effects, reflecting the constrained nature of the town. North East Barry key site policy (Strategic Policy 4.1) seeks to ensure adverse effects are avoided, and it is recommended that specific reference be given to Barry Wood SSSIs. Furthermore, landscape led design in the masterplanning stage has the potential to mitigate any negative effects, with potential to lead to positive effects as a result of improved connectivity.
- 9.159 By directing growth across the south of the Vale, the Preferred Strategy could result in habitat fragmentation and loss, particularly of priority habitats and/or species, though development will be targeted towards the largest settlements. However, there is also potential for the Preferred Strategy to protect and enhance the green and blue infrastructure network throughout the Vale.
- 9.160 Moreover, given the biodiversity duty set out in the Environment (Wales) Act 2016, there is also potential for the Preferred Strategy to strengthen existing wildlife corridors. This is reflected through the strategic policy framework which seek to protect and enhance Vale of Glamorgan's green and blue infrastructure.
- 9.161 Overall at this stage, **significant negative effects** are concluded, reflecting the conclusions of the HRA. However it is recognised by adopting recommendations set out through the HRA, the deposit plan could lead to neutral/ positive overall effects.

Appraisal of cumulative effects

- 9.162 Development proposed through the Preferred Strategy has the potential to interact with growth proposed in neighbouring local authority areas and lead to cumulative effects on biodiversity and geodiversity. As the LDPs of surrounding local authority areas give consideration to biodiversity and geodiversity, including how they seek to protect and enhance it, there is potential for positive cumulative effects to arise, especially given the biodiversity duty.
- 9.163 The HRA (2023) prepared for the Preferred Strategy raises concern over the cumulative impacts of recreation on key nature conservation sites in the UK, as most sites have a dual role of fulfilling Conservation Objectives while also providing recreational opportunity. Various research reports have provided compelling links between changes in housing and access levels, and impacts on European protected sites. While this is the case for any habitat, recreational impacts are particularly noteworthy for sites of high conservation importance. Due to different qualifying features and associated sensitivities, European sites differ in their susceptibility to different forms of recreation. Studies across a range of species have shown that the effects from recreation can be complex.

- 9.164 In this respect, it is recognised that HRAs of strategic planning documents tend to focus on the role of housing growth and new residents in altering usage levels in European sites. The Vale of Glamorgan RLDP will need to be robustly appraised due to its residential growth targets. An existing mitigation strategy is already adopted for parts of the Severn Estuary SAC / SPA / Ramsar in England and some Welsh authorities (Monmouthshire, Cardiff) are weighing up the implications of this for their own emerging RLDPs.
- 9.165 Further HRA work will be carried out to address the likelihood for adverse effects on the integrity of any European designated sites as a result of development proposed through the RLDP acting in-combination with other plans and projects. The candidate site assessment process considers the impacts of development at specific sites on biodiversity and this issue will also be considered further through the ISA process.
- 9.166 It will be important for local planning authorities and stakeholders, such as Natural Resources Wales and Natural England, to work closely to identify potential cross-boundary issues and opportunities, and seek to protect and enhance sites for biodiversity, as well as creating and enhancing ecological corridors / green infrastructure networks. Moreover, where possible, any strategic opportunities to deliver biodiversity net gain should be explored.

Historic environment

Appraisal of the Preferred Strategy

- 9.167 The Vale of Glamorgan has approximately 740 listed buildings of which 33 are Grade I listed. In addition to this, there are over 100 Scheduled Ancient Monuments, 39 Conservation Areas, 18 areas included in the Register of Historic Parks and Gardens, two areas on the Register of Landscapes of Historic interest in Wales.
- 9.168 Although not formally designated, consideration is also given to the Glamorgan Heritage Coast. The effect of the Preferred Strategy on the Heritage Coast is explored under the landscape ISA topic.
- 9.169 Heritage assets are located throughout the Vale, concentrated to some extent within settlements such as Barry, Penarth, Llantwit Major and Cowbridge. These are the Vale's key settlements/ service centres, which are a focus for development, and therefore there is the potential to lead to positive or negative effects. Positive effects include the ongoing regeneration and revival of Barry, particularly the waterfront, which has improved the cultural and social value, as well as its character and appearance.
- 9.170 Where there is the potential for new development to lead to adverse effects on designated assets, the Preferred Strategy has sought to outline the importance of protecting and enhancing the existing historic built environment. Policy SP5 (Placemaking) requires that "*development proposals demonstrate placemaking principles*" to deliver multiple benefits. This includes "*ensuring high quality sustainable design that reflects local distinctiveness, character, and cultural identity*" and "*protecting and enhancing the Historic Environment*". Furthermore, Policy SP18 (Green Infrastructure) states that development proposals must "*protect landscapes designated for their geological, natural, visual, historic or cultural significance.*"

9.171 As above, it is noted that without the location of all sites underpinning the Preferred Strategy, it is difficult to draw any definitive conclusions in relation to the nature and significance of effects on this ISA topic. However conclusions can be made at this stage in relation to the five Key Site allocations, which are all constrained to an extent:

- Land to the west of St Athan is within 20m of the Heritage Coast and 17m from West Orchard Manor House Scheduled Monument
- Land adjacent to Church Farm is 120m from Deserted Medieval Village North East of Rock Farm Scheduled Monument
- All key sites are within 800m of a grade II Listed building
- All key sites with the exception of Dinas Powys and Land at Readers Way are within 800m of a Grade II or II* listed building
- All key sites are adjacent to or intersect with an archaeologically sensitive area.

9.172 It is recognised that the strategic policy framework sets out broad development requirements in terms of protecting and enhancing the historic environment. As part of the wider suite of development management policies in the next iteration of the emerging RDLP Key Site policies should be updated to include relevant heritage constraints, to further strengthen the protection and enhancement of assets where possible.

9.173 While masterplan work is ongoing, rejuvenation should be prioritised where possible, with heritage assets playing a positive role. This will be particularly important on strategic Key Sites delivering up to 1,500 homes that present an opportunity to bring a new identity to places while sustaining and enhancing the significance of the historic environment. In this respect, the design/ layout of a development can strongly influence how it impacts surrounding heritage assets, therefore uncertainty is noted at this stage.

9.174 Also of relevance to the historic environment is Policy SP14 (Sustainable Tourism). This policy seeks to expand and enhance tourism through recognising and protecting the Vale's distinct local identity, built and natural environment as assets to tourism. This presents opportunities to improve access to, and understanding of, heritage assets as tourism attractions, with potential to lead to positive effects.

Summary appraisal

9.175 Without the location of all sites underpinning the Preferred Strategy, it is difficult to draw any definitive conclusions with regards to the nature and significance of effects that are likely to arise in relation to the historic environment ISA topic. However, it is recognised that there is an abundance of designated heritage assets within and surrounding Barry and the service centres, as well as the Key Sites, where most growth is being directed. Taking the precautionary principle, negative effects are predicted at this stage, which will need to be mitigated through development management policy within the deposit plan.

9.176 The Preferred Strategy places focus on shaping urban growth and regeneration, highlighting the opportunities that have been capitalised upon at

Barry Docks and Waterfront; and Barry Island as a focal point for tourism. The Preferred Strategy seeks to continue to develop attractive, vibrant places that enhance the built and natural environment, including continued regeneration of the Waterfront and Aberthaw. It is noted that masterplanning is ongoing in respect of both regeneration projects, and key site development, which will inform the deposit stage. Ultimately, an understanding of the historic environment and the significance of places must be considered, utilising evidence such as characterisation studies and conservation area appraisals.

9.177 At present, the strategic policy framework seeks to protect and enhance the historic environment, although it is a general consideration. It is therefore recommended that key site policies be updated to include relevant heritage constraints, to further strengthen the protection of assets and the robustness of the deposit plan.

9.178 Ultimately, overall effects are uncertain at this stage, and will be better informed by the next iteration of plan-making, however, taking a precautionary approach, the potential for **significant negative effects** is identified.

Appraisal of cumulative effects

9.179 Development proposed through the Preferred Strategy has the potential to interact with development proposed through other plans and lead to cumulative effects on the historic environment. Interactions of greatest significance are likely to be those plans, programmes and projects that impact upon the Vale's designated heritage sites; including Scheduled Monuments, Listed Buildings (Grade I to II*), Registered Parks and Gardens, and Conservation Areas. Assets extend throughout the Vale, often focused around key settlements and close to the authority area's boundaries. Therefore growth proposed through the Preferred Strategy alongside growth proposed through the neighbouring Cardiff, Rhondda, and Bridgend LDPs has the potential to cumulatively affect the sensitive historic site and its setting. It is recognised, however, that all LDPs will include policies which seek to protect and enhance the historic environment, in line with higher level policy requirements.

9.180 It will be important for local planning authorities and stakeholders, such as Cadw, to work closely to identify potential cross-boundary heritage issues, protecting and enhancing designated and non-designated heritage assets, particularly those that are at risk. Moreover, where possible, any strategic opportunities to deliver heritage-led regeneration, for example in line with the Vale's 40 Conservation Area Management Plan's, should be explored. Heritage impact assessments are notably often used as a core part of the design process, to ensure that the significance of historic assets are taken into account when development could lead to change.

Landscape

Appraisal of the Preferred Strategy

9.181 The Vale has a high quality, distinct landscape character, reflecting its predominantly rural, coupled with coastal, nature. Many of the Vale's landscapes are identified through designation for their high quality. One Landscape of Outstanding and Special Interest (LOSI) exists wholly within the

Vale and another partially, there are also six Special Landscape Areas (SLAs), and the western coast of the Vale is recognised for its national importance as the Glamorgan Heritage Coast.

9.182 The LOSI is located in the centre of the authority area, north of Penmark, while SLAs extend across a significant proportion of the Vale, central, north, and east to the north of Penarth. The LOSI is distant from the Strategic Growth Area where growth is focused, while the SLAs overlap slightly, along the north of the Growth Area. When considering the Key Sites, Land adjacent to Church Farm is adjacent to a SLA, while Dinas Powys falls within a SLA.

9.183 While the Preferred Strategy performs broadly positively by directing growth away from the SLAs and LOSI, development to the north of the Strategic Growth Area could lead to adverse effects on the character and setting of the SLAs. However uncertainty remains at this stage without the location of all site allocations. In terms of the Key Sites, it is recommended that the two Key Site policies be updated to include reference to the SLA present, and provide an approach to mitigation. It is however noted that masterplanning is ongoing, which will likely be landscape led and include consideration of key views, character, and setting of the respective SLA.

9.184 In terms of the Heritage Coast, the western extent of the Growth Area falls within the designated site; notably including south of Llantwit Major and the western extent of St Athan. While not designated, the Heritage Coast is recognised for its national importance as an area of attractive undeveloped coastline valued by residents and visitors alike. Any development within or close to the designation should be mindful of the need to protect the special qualities of the Glamorgan Heritage Coast. While the Preferred Strategy vision and supporting text highlights the need to deliver “*sensitive and sustainable management of its built and natural assets including the Heritage Coast*”, it is recommended that this is moved into policy to further strengthen the condition.

9.185 Policy SP5 (Placemaking) performs positively in terms of providing a holistic level of support for environmental quality, requiring that “*development proposals demonstrate placemaking principles*” to deliver multiple benefits. Benefits include “*ensuring high quality sustainable design that reflects local distinctiveness, character, and cultural identity*” and “*strategically integrating Green Infrastructure networks and open space into development, delivering social and environmental benefits*”.

9.186 Policy SP18 (Green Infrastructure) is also noteworthy, requiring that development proposals must “*protect landscapes designated for their geological, natural, visual, historic or cultural significance*.” It is recognised that a green infrastructure led approach to the design of any new development has the potential to enhance the character and identity of the Vale’s settlements and the wider countryside. Key Sites are noteworthy in this respect, as mixed-use sites of up to 1,500 homes present opportunities for new development to be landscape led, shaped by and sensitive to the local context, connected by green/ blue infrastructure, and appropriate to the local character. This in turn is likely to support healthy lifestyles, creating attractive, desirable, safe and accessible places to live.

Summary appraisal

- 9.187 The Preferred Strategy focuses growth to the south of the Vale within the Strategic Growth Area, broadly avoiding the LOSI and SLAs which cover a significant proportion of the Vale. However the Strategic Growth Area does overlap slightly with SLAs, and consideration is also given to the Glamorgan Heritage Coast which partially overlaps with the west of the Growth Area.
- 9.188 Without the location of all sites underpinning the Preferred Strategy, it is difficult to draw any definitive conclusions with regards to the nature and significance of effects that are likely to arise in relation to the landscape topic. Nonetheless, it is recognised that the Key Sites included within the Preferred Strategy are predominately large greenfield sites on the edge of settlements, with the potential to change the landscape in a significant way.
- 9.189 Recommendations have therefore been made in relation to policy revisions, specifically where SLAs could be adversely impacted by key sites, and to increase the level of policy protection provided to the Heritage Coast.
- 9.190 More broadly, it is highlighted through the ISA that the aims and objectives of the Preferred Strategy, as well as specific policies, seek to ensure that designated landscapes and local distinctiveness are key considerations for new development. The opportunities presented by strategic growth at Key Sites to achieve high quality landscape-led design are also identified, with detailed masterplanning for sites anticipated to be presented at deposit stage.
- 9.191 **Nonetheless, taking a precautionary approach, significant negative effects are concluded at this stage.**

Appraisal of cumulative effects

- 9.192 Development proposed through the Preferred Strategy has the potential to interact with and have cumulative effects on landscape with growth proposed in neighbouring local authority areas. Key constraints in this respect include Bridgend to the west, and the presence of Glamorgan Heritage Coast; with all neighbouring authorities also potentially constrained by SLAs extending to the north along the border with Rhondda, to the west to Bridgend, and to the east close to Cardiff. However it is recognised that all of the LDPs of the neighbouring local authority areas include policies which seek to protect and enhance the landscape, and therefore negative cumulative effects should be minimised.
- 9.193 Ultimately, the nature and significance of cumulative effects will be dependent on the precise location of development, as well as the design/ layout of development and the implementation of mitigation measures. It will be important for local planning authorities to work closely with each other, as well as Natural Resources Wales, to try and plan at an appropriate scale to minimise potential impacts on the wider landscape, as well as identify opportunities to deliver improvements to the landscape where possible.

10. Summary appraisal findings for the Preferred Strategy

Introduction

10.1 This chapter provides a summary of the detailed appraisal findings for the Preferred Strategy set out in the preceding chapter. Broad summary findings are followed Table 10.1 overleaf, which sets out headline conclusions against each ISA theme.

Summary appraisal findings

- 10.2 The Preferred Strategy is predicted to lead to **significant long-term positive effects** regarding the economy and employment, population and communities, and health and wellbeing ISA topic. This reflects the delivery of new employment land and homes to meet and exceed identified local needs, while providing flexibility during the plan period. Furthermore, growth is focused broadly in the most sustainable locations, ensuring that residents have better access to active/ public transport and existing services and facilities; and that the Vale's main towns and service centres are thriving in the long-term.
- 10.3 **Minor positive effects** are anticipated for transport and movement. Effects of significance are not anticipated for this ISA topics as growth still has the potential to lead to increased congestion, as a result of an increased number of residents/ private cars.
- 10.4 **Minor positive effects** are also concluded for the equalities, diversity and social inclusion ISA topic, recognising that a thriving hierarchy of settlements across the plan area (reflecting the Sustainable Settlement Appraisal) will contribute positively towards tackling inequalities and deprivation across the county borough.
- 10.5 **Neutral effects** are anticipated in relation to climate change adaptation, while uncertainty is concluded in relation to mitigation. This reflects the limited detail provided in terms of viability, although it is recognised the potential for significant positive effects exists. This includes, for example, utilising strategic scale opportunities for delivering innovative renewable energy generation.
- 10.6 **Uncertainty** is concluded at this stage in relation to the historic environment and landscape, reflecting the limited information required in relation to smaller sites. The precise location and scale of development at these sites will influence the significance of residual effects, alongside wider policy provisions yet to be developed.
- 10.7 **Significant negative effects** are considered likely for the natural resources ISA topic given the level of growth proposed through the Preferred Strategy. Notably, this will result in the loss of a significant amount of greenfield land, although it is recognised uncertainty surrounds the smaller site allocations.
- 10.8 **Significant negative effects** in relation to biodiversity reflect the conclusions provided through the HRA. It is however recognised that once

recommendations have been adopted, residual effects are likely to be lessened; with the potential for positive effects.

10.9 **Table 10.1** overleaf sets out summary headline conclusions for each ISA topic.

Table 10.1 Summary headline conclusions

ISA topic	Headline conclusions
Economy and employment	The Preferred Strategy is predicted to lead to significant long-term positive effects regarding the economy and employment ISA topic. It takes advantage of opportunities arising from the Vale's strategic location, capitalising upon major employment allocations in sustainable locations, as key areas of investment. As a result, it should help to provide significant employment and training opportunities, enable established business to expand, and provide attractive areas for local business investment. It is considered that economic growth could potentially reduce out-commuting, however the strategy still seeks to enhance those key sustainable connections with strategic employment areas outside of the Vale, such as Cardiff.
Population and communities	The strategy performs well overall against the population and communities ISA objectives, with significant long-term positive effects concluded. The strategy seeks to deliver a sustainable level of housing and employment growth, supported by appropriate infrastructure to accord with the Vale's position within the Cardiff Capital Region/ Future Wales national growth area. It is considered that focusing growth, including key strategic sites, within the Strategic Growth Area will support the development of adaptable, accessible, well-connected communities. Specifically, the scale of development proposed through Key Site 'North East Barry' offers the opportunity to make significant infrastructure improvements to ensure that this extension to Barry integrates with the existing community.
Health and wellbeing	The Preferred Strategy document recognises that the health and wellbeing of communities is crucially important to delivering long term sustainable development and placemaking. The Strategy focuses growth in the most sustainable locations within the Strategic Growth Area, contributing positively to the health and wellbeing ISA topic. This includes ensuring that residents have better access to active/ public transport and existing services and facilities, which are largely located in the Key Settlement of Barry and supporting Service Centre Settlements. The Preferred Strategy also performs positively in terms of setting requirements for provision of green infrastructure, and protecting and enhancing connectivity between green infrastructure assets. Significant long term positive effects are therefore concluded at this stage.
Equalities, diversity and social inclusion	The Preferred Strategy performs well in terms of directing growth to those areas of the Vale of Glamorgan identified as more deprived by the Welsh IMD, and addressing inequalities in these communities. This will help tackle inequalities and deprivation within the Vale by ensuring residents have access to employment, education, and services nearby. The Preferred Strategy also seeks to address issues relating to equalities, diversity, and social inclusion by delivering affordable housing. Consideration is also given through the strategy to seeks to ensure that future housing makes provision for the specific accommodation needs of Gypsy & Travellers, elderly, and disabled people. Finally, the deposit plan should seek to address the conditions which are essential to the Welsh language, and which contribute to its use. Minor positive effects are therefore concluded overall at this stage.
Climate change	Where Key Sites are constrained by a level of flood risk (less than 50% of the site within Flood Zone 2), it is considered that higher level policy, alongside forthcoming masterplanning, and site specific policy requirements, should suitably mitigate any adverse effects. This includes ensuring that a sequential approach is taken to ensure that development does not take place in areas at high risk of flooding when appropriate areas of lower risk are reasonably available. However airing on the side of

caution, **uncertainty** is concluded at this stage in relation to climate change adaptation.

Regarding climate change mitigation, the distribution of growth to the Principal and Local Centres could theoretically maximise the potential to seek strategic scale opportunities for delivering innovative renewable energy generation. Another key aspect of the Preferred Strategy is support given to regeneration opportunities, including safeguarding land at the former Aberthaw Power Station as a green energy hub.

Uncertainty is nonetheless concluded for climate change mitigation at this stage. A key question being how the Preferred Strategy seeks to capitalise upon Cardiff Airport, and the challenges this creates for meeting decarbonisation targets/ commitments. It is considered that this will be explored further within the deposit plan.

Transport and movement	<p>The Preferred Strategy gives great weight to the sustainable transport network and the importance of directing growth to locations which can either integrate with the existing network or enhance it by strengthening links with key services and facilities. Development is focused to the Strategic Growth Area, which includes the settlements of Penarth and Cogan, Dinas Powys, Barry, Rhose and Llantwit Major; all locations that are well served by existing and proposed rail stations as part of the South Wales Metro and in areas with good bus links. The Preferred Strategy also performs well through allocating key strategic sites that are broadly within walking and cycling distance of centres, as this will reduce the need to travel. Additionally, given the scale of key sites, positive effects are likely to be delivered through infrastructure provision, improved connectivity, and increased levels of self-containment. Minor positive effects are therefore concluded overall.</p>
Natural resources	<p>Whilst there is a need to conserve natural resources, it is recognised that the extent of growth proposed through the Preferred Strategy will result in at least a degree of loss of these resources. A key issue of concern is the loss of greenfield, agricultural land; however, this is largely unavoidable given the limited availability of brownfield land in the Vale. Nevertheless, significant negative effects are considered likely given the level of growth proposed through the Preferred Strategy, particularly Key Sites on the settlement edges. However, given only key sites have been allocated at this stage, a level of uncertainty is noted.</p>
Biodiversity and geodiversity	<p>Significant negative effects are concluded reflecting the conclusions of the HRA; identifying that for some combinations of European site and impact pathway it was not possible for the HRA to conclude that there would be no likely significant effect, or adverse effect on integrity, either alone or in combination with other projects and plans. These combinations are set out in the HRA, and include recreational pressure at Severn Estuary SPA/SAC/Ramsar site, and water quality (treated sewage effluent and surface runoff) impacts on Kenfig SAC. However it is recognised by adopting recommendations set out through the HRA, the deposit plan could lead to neutral/ positive overall effects.</p>
Historic environment	<p>Without the location of all sites underpinning the Preferred Strategy, it is difficult to draw any definitive conclusions with regards to the nature and significance of effects that are likely to arise in relation to the historic environment ISA topic. However, it is recognised that there is an abundance of designated heritage assets within and surrounding Barry and the service centres, as well as the Key Sites, where most growth is being directed. Taking the precautionary principle, significant negative effects are predicted at this stage. It is recognised that the ISA will be better informed by the next iteration of plan-making, where potential adverse effects will likely be mitigated through development management policy; and detailed design and masterplanning of key sites.</p>
Landscape	<p>Without the location of all sites underpinning the Preferred Strategy, it is difficult to draw any definitive conclusions with regards to the nature and</p>

significance of effects that are likely to arise in relation to the landscape topic. Nonetheless, it is recognised that the Key Sites included within the Preferred Strategy are predominately large greenfield sites on the edge of settlements, with the potential to change the landscape in a significant way. Taking the precautionary principle, **significant negative effects** are predicted at this stage. It is recognised that the ISA will be better informed by the next iteration of plan-making, where potential adverse effects will likely be mitigated through development management policy; and detailed design and masterplanning of key sites.

Part 3: What happens next?

11. Introduction (to Part 3)

11.1 The aim of this chapter is to explain next steps in the plan-making/ ISA process as well as monitoring.

Next steps

11.2 This Initial SA Report will accompany the Preferred Strategy for public consultation from XXXX to XXXX. Any comments received will be reviewed and then considered as part of the iterative plan-making and ISA process.

11.3 The representations received along with further evidence base work, including further ISA work, will inform the development of the Deposit Plan which is scheduled to be published for consultation in XXXX. An updated ISA Report will accompany the Deposit Plan for consultation.

Monitoring

11.4 Monitoring measures will be established within the next version of the ISA Report to address the potential significant effects associated with the Deposit version of the plan.

Appendices

Appendix A Regulatory requirements

As discussed in Chapter 1 above, Schedule 2 of the Environmental Assessment of Plans (Wales) Regulations 2004 sets out the information that must be contained in the ISA Report.

Table A1 Questions answered by the ISA Report, in accordance with an interpretation of regulatory requirements

Questions answered		As per the regulations...the SA Report must include...
Introduction	What's the plan seeking to achieve?	<ul style="list-style-type: none"> An outline of the contents, main Objectives of the plan and relationship with other relevant plans and programmes
	What's the ISA scope?	<ul style="list-style-type: none"> Relevant environmental protection Objectives, established at international or national level Any existing environmental problems which are relevant to the plan including those relating to any areas of a particular environmental importance
	What's the sustainability 'baseline'?	<ul style="list-style-type: none"> Relevant aspects of the current state of the environment and the likely evolution thereof without implementation of the plan The environmental characteristics of areas likely to be significantly affected Any existing environmental problems which are relevant to the plan including those relating to any areas of particular environmental importance
	What are the key Issues and Objectives that should be a focus?	<ul style="list-style-type: none"> Key environmental problems / Issues and Objectives that should be a focus of (i.e. provide a 'framework' for) assessment
Part 1	What has plan-making / ISA involved up to this point?	<ul style="list-style-type: none"> Outline reasons for selecting the alternatives dealt with (and thus an explanation of the 'reasonableness' of the approach) The likely significant effects associated with alternatives Outline reasons for selecting the preferred approach in-light of alternatives assessment / a description of how environmental Objectives and considerations are reflected in the Plan
Part 2	What are the ISA findings at this current stage?	<ul style="list-style-type: none"> The likely significant effects associated with the Submission Plan The measures envisaged to prevent, reduce and offset any significant adverse effects of implementing the Submission Plan
Part 3	What happens next?	<ul style="list-style-type: none"> A description of the monitoring measures envisaged

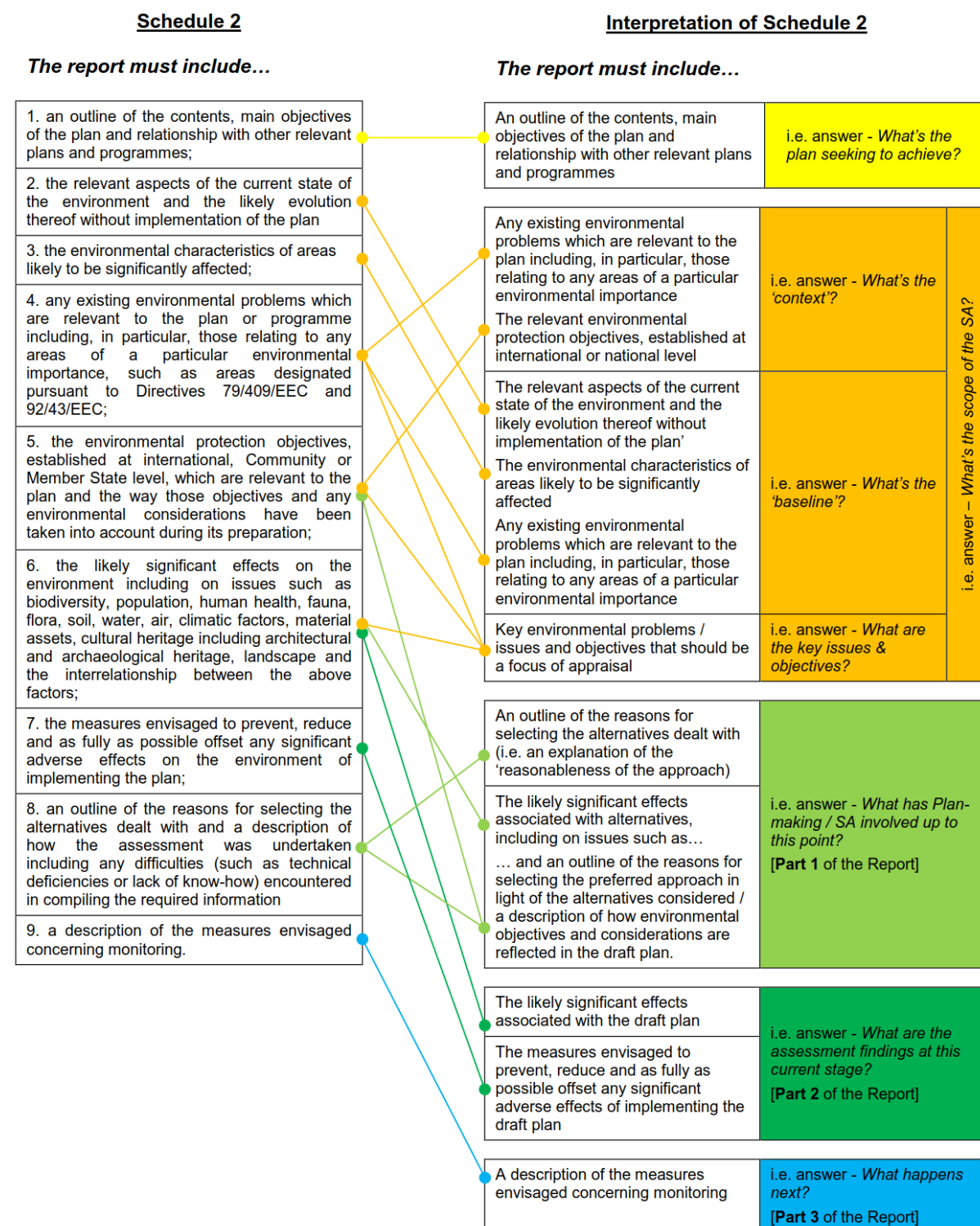


Figure A1 Questions answered by the ISA Report, in accordance with regulatory requirements

Whilst **Table A1** and **Figure A1** signpost broadly how/ where this report presents the information required of the ISA Report by the Regulations, as a supplement it is also helpful to present a discussion of more precisely how/where regulatory requirements are met - see **Table A2**.

Table A2 ‘Checklist’ of how (throughout the ISA process) and where (within this report) regulatory requirements have been, are and will be met

Regulatory requirement	Discussion of how requirement is met
Schedule 2 of the regulations lists the information to be provided within the ISA Report	
1. An outline of the contents, main Objectives of the plan or programme, and relationship with other relevant plans and programmes;	Chapter 2 (‘What’s the Preferred Strategy seeking to achieve?’) presents this information. The relationship with other plans and programmes is also available to view separately via VOGC. This is given the iterative nature of the process, and these documents will be updated as necessary.
2. The relevant aspects of the current state of the environment and the likely evolution thereof without implementation of the plan or programme;	These matters were considered in detail at the scoping stage, which included consultation on a Scoping Report published in 2022.
3. The environmental characteristics of areas likely to be significantly affected;	The outcome of scoping was an ‘ISA Framework’, and this is presented within Chapter 3 (‘What’s the scope of the ISA’).
4. Any existing environmental problems which are relevant to the plan or programme including, in particular, those relating to any areas of a particular environmental importance, such as areas designated pursuant to Directives 79/409/EEC and 92/43/EEC.;	More detailed messages from the Scoping Report - i.e. messages established through context and baseline review - are available to view separately via VOGC. This is given the iterative nature of the process, and these documents will be updated as necessary.
5. The environmental protection Objectives, established at international, Community or national level, which are relevant to the plan or programme and the way those Objectives and any environmental, considerations have been considered during its preparation;	The Scoping Report (2021) presents a detailed context review and explains how key messages from the context review (and baseline review) were then refined in order to establish an ‘ISA framework’. The context review informed the development of the ISA framework and topics, presented in Chapter 3, which provide a methodological ‘framework’ for appraisal. With regards to explaining “how... considerations have been taken into account” - <ul style="list-style-type: none"> • Chapters 5 explains how reasonable alternatives were established in-light of earlier consultation and evidence.

	<ul style="list-style-type: none"> Chapter 6 sets out the summary findings of the appraisal of the reasonable alternatives, with the detailed appraisal provided in Appendix C. Chapter 7 explains the Council's 'reasons for supporting the preferred approach', i.e. explains how/why the preferred approach is justified in-light of alternatives appraisal (and other factors). Chapters 9 and 10 sets out the findings of the appraisal of the Preferred Strategy.
6. The likely significant effects on the environment, including on issues such as biodiversity, population, human health, fauna, flora, soil, water, air, climatic factors, material assets, cultural heritage including architectural and archaeological heritage, landscape and the interrelationship between the above factors. (Footnote: These effects should include secondary, cumulative, synergistic, short, medium and long-term permanent and temporary, positive and negative effects);	<ul style="list-style-type: none"> Chapter 6 sets out the summary findings of the appraisal of the reasonable alternatives at this stage with the detailed appraisal provided in Appendix C. Chapters 9 presents the draft plan appraisal, and the summary findings are provided in Chapter 10. <p>As explained within the various methodology sections, as part of appraisal work, consideration has been given to the ISA scope, and the need to consider the potential for various effect characteristics/ dimensions.</p>
7. The measures envisaged to prevent, reduce and as fully as possible offset any significant adverse effects on the environment of implementing the plan or programme;	<p>Where necessary, the appraisal of the alternatives (Appendix B, C and Chapter 6) and the Preferred Strategy (Chapters 9 and 10) identify avoidance and/ or mitigation measures to reduce the significance of residual negative effects or to enhance residual positive effects. These will be explored further through the ISA of candidate sites and the Deposit Plan.</p>
8. An outline of the reasons for selecting the alternatives dealt with, and a description of how the assessment was undertaken including any difficulties (such as technical deficiencies or lack of know-how) encountered in compiling the required information;	<p>Chapter 7 explains the Council's 'reasons for selecting the preferred option' (in light of alternatives appraisal).</p> <p>Methodology is discussed at various places, ahead of presenting appraisal findings, and limitations/ assumptions are also discussed as part of appraisal narratives.</p>

9. Description of measures envisaged concerning monitoring in accordance with Art. 10;	As explained in Chapter 13, monitoring measures will be set out in the ISA Report that accompanies the Deposit Plan.
10. A non-technical summary of the information provided under the above headings	The NTS is provided in a separate document.

The ISA Report must be published alongside the Draft Plan, in accordance with the following regulations

Authorities with environmental responsibility and the public, shall be given an early and effective opportunity within appropriate time frames to express their opinion on the Draft Plan or programme and the accompanying environmental report before the adoption of the plan or programme (Art. 6.1, 6.2)

At the current time, this ISA Report is published alongside the Preferred Strategy Document so that representations might be made ahead of the Deposit stage.

The ISA Report must be considered, alongside consultation responses, when finalising the plan.

The environmental report prepared pursuant to Article 5, the opinions expressed pursuant to Article 6 and the results of any transboundary consultations entered into pursuant to Article 7 shall be considered during the preparation of the plan or programme and before its adoption or submission to the legislative procedure.

The Council has considered the Initial ISA Report when finalising the Preferred Strategy for publication. Further SA work will be carried out to inform the development of the Deposit Plan.

Appendix B GIS analysis of Candidate Sites

Methodology

In line with the Development Plans Manual Edition 3 (March 2020), separate more spatially specific and quantitative criteria have been developed to assess candidate sites through the ISA, which build on the ISA Framework developed at the scoping stage. The methodology for the ISA of candidate sites involves employing GIS data-sets and measuring ('quantitative analysis') how each candidate site relates to various constraint and opportunity features. Specifically, the aim is to differentiate the performance of the candidate sites in respect of specific locational (e.g. distance to a GP surgery) / intersect (e.g. intersect with flood risk zone) criteria. The ISA methodology allows for the consistent and transparent assessment of candidate sites.

Two GIS tools were used to undertake the appraisal of candidate site options depending on the feature and measurements required. These provided either a:

- **Straight line distance** from a feature to a candidate site and percentage overlap of any features within a site. Measurements were taken from the closest boundary of the candidate site and the feature.
- or
- **Network analyst** - Distances calculated from a candidate site to a feature along a real-world network of roads and urban footpaths using Open Street Map. The network analyst tool helps to provide approximate real world walking distances. Network analysis has been carried out assuming suitable access points to the sites (as we cannot use the whole site boundary) and so the walking distances are approximate. I.e. a feature may be closer to the site boundary than the assigned access point.

Assumptions and limitations

The ISA of candidate sites is limited by the spatial data sets available. Where there are any significant gaps in the data, then the methodology addresses them with more, where possible, with qualitative criteria.

Additionally, it is generally the case that, on the basis of the available datasets, there is more limited potential to appraise the merits of site options in terms of socio-economic objectives, relative to environmental objectives. In this respect, under the economy and employment ISA topic, singular employment sites are not considered (i.e. public house or scrap metal works); rather, clusters of employment sites are considered, including town/ local centres and industrial estates.

It is also important to state that the appraisal is limited on the basis that proximity / percentage intersect is often (i.e. for many objectives) a crude indicator of constraint or opportunity. For example, whilst percentage intersect with a flood risk zone is a strong indicator of actual flood risk constraint, proximity to a designated biodiversity feature, or Air Quality Management Area (AQMA), is less robust as an indicator of biodiversity or air quality constraint. We understand that distance to features in this

respect does not indicate a 'significant effect', but aids differentiation, which is the aim at this stage of the ISA process. However, it is important to note that these issues will be explored in further detail through the ISA of strategic options and RLDP policies.

Further criteria specific assumptions are set out below:

- Where candidate sites are brownfield in nature, we assume that any development would be an improvement on the existing form in accordance with principles of sustainable development and placemaking as set out in Planning Policy Wales (PPW).
- It is assumed that all development will deliver appropriate mitigation to address any potential water quality impacts, in accordance with the Water Supply (Water Quality) Regulations 2018 (in Wales).
- In terms of infrastructure (green, blue, grey), services and facilities, the appraisal considers only those assets that are existing, and does not consider any future proposals. This will be explored at the next stage of the ISA process.
- In relation to 'health services' this include pharmacies, dentists, GP and GP sub branches, opticians, and hospitals.
- Where indicative capacity of sites is considered (i.e. in relation to 'population and communities' and 'landscape'), as no decision has been made at this stage, the maximum capacity proposed by site promoters has been relied upon.

Detailed methodology

The candidate site options appraisal methodology is presented in Tables B.1 and B.2 overleaf. The tables set out the criteria and thresholds as well as the GIS tool used and provides further commentary as necessary. The tables recognise data limitations and assumptions set out above. Where possible the ISA methodology has sought to remain consistent with the Vale's [candidate site methodology](#) and to reflect guidance in the Welsh Government Development Plans Manual Edition 3 (March 2020).

Table B.1 Site options appraisal methodology

Criteria	Data and measurement	Commentary
Employment		
Enterprise Zone	Data provided VOGC and does not include features outside the county borough. Network analyst measurement.	Highlights walking distance to existing employment site. There is no clear guidance on distance thresholds, and it is recognised that enterprise zones will often be reached by car or public transport. The thresholds therefore reflect the spread of the data.
Employment Site	Data provided VOGC and does not include features outside the county borough. Network analyst measurement.	Highlights walking distance to existing employment site. There is no clear guidance on distance thresholds, and it is recognised that employment sites will often be reached by car or public transport. The thresholds therefore reflect the spread of the data.
Population and communities		
Settlement	Data provided VOGC and does not include features outside the county borough. Network analyst measurement.	Highlights the proximity of site options to the nearest settlement (town, district, local and neighbourhood centres, and also Culverhouse cross as an out of town centre). There is no clear guidance on distance thresholds, and it is recognised that these facilities will often be reached by car or public transport. The thresholds therefore reflect the spread of the data.
Community centres	Data provided by VOGC and does not include features outside the county borough. Network analyst measurement.	Highlights walking distance to a community centre. There is no clear guidance on distance thresholds. The thresholds therefore reflect the spread of the data.
Primary school	Data provided by VOGC and does not include features outside the county borough. Network analyst measurement.	Highlights walking distance to schools. Thresholds based on the WG's Active Travel Guidance ¹⁶ and Sustrans Walkable Neighbourhoods Report ¹⁷ .
Secondary school	Data provided by VOGC and does not include features outside the county borough. Network analyst measurement.	Highlights walking distance to schools. Thresholds based on the WG's Active Travel Guidance (800m for walkable neighbourhoods).
Health and wellbeing		
Health services	Data provided by VOGC and does not include features outside the county borough. Network analyst measurement.	Highlights walking distance to health facilities (including hospitals, GPs and dentists). Thresholds based on the WG's Active Travel Guidance and Sustrans Walkable Neighbourhoods Report.

¹⁶ Welsh Government (2021) [Active Travel Act guidance \(gov.wales\)](https://gov.wales/active-travel-act-guidance)

¹⁷ Sustrans (2022) [Walkable neighbourhoods: how to reduce car dependency in new developments \(sustrans.org.uk\)](https://sustrans.org.uk/walkable-neighbourhoods-how-to-reduce-car-dependency-in-new-developments)

Criteria	Data and measurement	Commentary
Leisure centre	Data provided by VOGC and does not include features outside the county borough. Network analyst measurement.	Highlights walking distance to a community centre. There is no clear guidance on distance thresholds. The thresholds therefore reflect the spread of the data.
Public open space	Data provided by VOGC and does not include features outside the county borough. Network analyst measurement.	Highlights the walking distance of site options to areas of green space. It is recognised that there may be other areas of open or green space that are not considered through this criterion. Thresholds based on the WG's Active Travel Guidance and Sustrans Walkable Neighbourhoods Report.
Green wedge	Data provided by VOGC. Straight line distance/ overlap measurement.	Green wedges are an urban containment mechanism intended to restrict the spread of built development beyond designated settlement boundaries and allocated sites. VOGC have identified several green wedges in order to prevent coalescence between settlements, many of which are focused in the south/ southeast of the county borough.
Public right of way	Data provided by VOGC. Straight line distance/ overlap measurement.	Highlights the proximity of site options to the public right of way network.
National cycle network	Data provided by Welsh Government. Straight line distance/ overlap measurement.	Highlights the proximity of site options to completed national cycling routes.
Welsh Coastal Path	Data provided by Welsh Government. Straight line distance/ overlap measurement.	Highlights the proximity of site options to the Welsh Coastal Path.
Equalities, diversity and inclusion		
Deprivation	Data provided by Welsh Government and included features outside the county borough. Straight line distance/ overlap measurement.	Highlights site options that fall within an area of deprivation. Development in an area of relative deprivation (as measured by the Index of Multiple Deprivation) may support regeneration. However, it is recognised that this will be dependent on a variety of factors, including the level of improvements delivered in terms of community facilities.
Transport and movement		
Railway station	Data provided by VOGC and includes features outside the county borough. Network analyst measurement.	Highlights walking distance to a bus stop. Thresholds based on the WG's Active Travel Guidance and Sustrans Walkable Neighbourhoods Report.

Criteria	Data and measurement	Commentary
Bus stop	Data provided by VOGC and includes features outside the county borough. Network analyst measurement.	Highlights walking distance to a bus stop Thresholds based on the WG's Active Travel Guidance and Sustrans Walkable Neighbourhoods Report.
Active travel	Data provided by VOGC and includes features outside the county borough. Network analyst measurement.	Highlights the proximity of site options to the active travel network (footway/cycle/pedestrian zones).
Natural resources		
Land classification	Data provided by VOGC. Straight line distance/ overlap measurement.	Highlights whether the site is a previously developed or greenfield site as defined by Future Wales.
Agricultural land classification	Data provided by Welsh Government. Straight line distance/ overlap measurement.	The ALC Predictive Map Version 2 (2019) is available and provides a distinction between Grade 3a (i.e. land classified as the 'best and most versatile') and Grade 3b land (i.e. land which is not classified as such). Taking the above into account it is appropriate to 'flag' red those sites that may include Grade 1 to 3a agricultural land.
Source Protection Zone	Data provided by Natural Resource Wales. Straight line distance/ overlap measurement.	Groundwater Source Protection Zones are designated zones around public water supply abstractions and other sensitive receptors that signal there are particular risks to the groundwater source they protect. The zones are based on an estimation of the time it would take for a pollutant which enters the saturated zone of an aquifer to reach the source abstraction or discharge point. For each source, three zones are defined around a particular water abstraction based on travel times, of the groundwater (Zone 1 = 50 days; Zone 2 = 400 days) and the total catchment area of the abstraction (Zone 3).
Nitrate Vulnerable Zone	Data provided by Natural Resource Wales. Straight line distance/ overlap measurement.	Nitrate Vulnerable Zones are areas within Wales that contain surface water or groundwater that is susceptible to nitrate pollution from agricultural activities. They are designated in accordance with the requirements of the European Commission's Nitrates Directive 91/676/EEC, which aims to protect water quality across Europe by preventing nitrates from agricultural sources polluting ground and surface waters and by promoting the use of good farming practices. The Welsh Government is responsible for maintaining and improving the quality of the aquatic environment and carries out a review of the NVZ areas every four years.
Mineral safeguarded site	Data provided by VOGC. Straight line distance/ overlap measurement.	It is assumed that any development outside of a mineral safeguarded site would not result in the sterilisation of that resource and the RAG distances reflect this.

Criteria	Data and measurement	Commentary
Waterbodies	Data provided by VOGC. Straight line distance/ overlap measurement.	It is recognised that distance in itself is not a definitive guide to the likelihood or significance of effects on a waterbody (rivers, lakes and coastline). This criterion will help to highlight the waterbodies that lies in closest proximity to the site for the purposes of differentiating between sites.
Biodiversity		
Ancient Woodland	Data provided by VOGC and includes features outside the county borough. Straight line distance/ overlap measurement.	Ancient Woodlands are spread across the county borough. The RAG distances have been selected to take account of this and help differentiate between the sites options.
European site (SAC, SPA or Ramsar site)	Data provided by Natural Resource Wales and includes sites lying outside of the county borough Straight line distance/ overlap measurement.	It is recognised that distance in itself is not a definitive guide to the likelihood or significance of effects on a European site. This criterion will help to highlight the European sites that lies in closest proximity to the site for the purposes of differentiating between sites.
Site of Special Scientific Interest (SSSI)	Data provided by Natural Resource Wales and includes sites lying outside of the county borough Straight line distance/ overlap measurement.	As above, it is recognised that distance in itself is not a definitive guide to the likelihood or significance of effects on a European site. This criterion will help to highlight the SSSI that lies in closest proximity to the site and together with the criterion below for SSSI Impact Zones, it will help to differentiate between sites.
Sites of Importance for Nature Conservation (SINCs)	Data provided by VOGC and does not include sites lying outside of the county borough. Straight line distance/ overlap measurement.	There are numerous SINCs situated within the Vale and the RAG distances reflect this along with the assumption that these are of less significance and therefore less sensitive than internationally and nationally designated biodiversity.
Priority habitats	Data provided by VOGC and includes sites lying outside of the county borough Straight line distance/ overlap measurement.	This seeks to flag if a development at a site could result in the loss of and therefore fragmentation of BAP priority habitats. It also helps to flag if there is the potential for disturbance to priority habitats within 50m of the site.
Historic Environment		
Conservation Area	Data provided by VOGC and does not include conservation areas outside the county borough. Straight line distance/ overlap measurement.	It is appropriate to 'flag' a red where a site is within, intersects or is adjacent to a Conservation Area. It is also appropriate to flag sites that might more widely impact on the setting of a Conservation Area and a 50m threshold has been assumed. It is recognised that distance in itself is not a definitive guide to the likelihood or significance of effects on a heritage asset. It is

Criteria	Data and measurement	Commentary
		also recognised that the historic environment encompasses more than just designated heritage assets. Whilst there is good potential to highlight where development in proximity to a heritage asset might impact negatively on that asset, or its setting, a limitation relates to the fact that it has not been possible to gather views from heritage specialists on sensitivity of assets/ capacity to develop each of the sites. This is a notable limitation as potential for development to conflict with the setting of historic assets/ local historic character can only really be considered on a case-by-case basis rather than through a distance-based criteria. It will also sometimes be the case that development can enhance heritage assets.
Scheduled Monument	Data provided by Cadw and includes assets lying outside of the county borough. Straight line distance/ overlap measurement.	As above.
Heritage Coast	Data provided by Cadw and includes assets lying outside of the county borough. Straight line distance/ overlap measurement.	As above.
Listed Building	Data provided by Cadw and includes assets lying outside of the county borough. Straight line distance/ overlap measurement.	As above.
National Monuments Record of Wales – Maritime Heritage Assets	Data provided by Cadw and includes assets lying outside of the county borough. Straight line distance/ overlap measurement.	As above.
Archaeologically sensitive area	Data provided by VOGC and does not include sites lying outside of the county borough. Straight line distance/ overlap measurement.	As above
Landscape		
Country Park	Data provided by VOGC. Straight line distance/ overlap measurement.	There are only two country parks in the county borough. Highlights the proximity of site options to the nearest of the two country parks.

Criteria	Data and measurement	Commentary
National Landscape Character Area	Data provided by VOGC. Straight line distance/ overlap measurement.	Highlights which National Landscape Character Area the site falls within.
Special Landscape Areas	Data provided by VOGC. Straight line distance/ overlap measurement.	There are numerous locally designated SLA's throughout the county borough. Highlights the proximity of site options to the nearest of the SLAs.
Landscape of Outstanding Historic Interest	Data provided by VOGC and does not include sites lying outside of the county borough. Straight line distance/ overlap measurement.	As above.
Climate Change		
Groundwater flood risk	Data provided by VOGC. Straight line distance/ overlap measurement.	This criterion will help to identify sites that fall within areas at risk of groundwater flooding.
Surface water flood risk	Data provided by VOGC. Straight line distance/ overlap measurement.	This criterion will help to identify sites that fall within areas at risk of surface water flooding. N.B. While it is important to avoid development in areas of high flood risk, there is the potential to address risk of surface water flooding at the development management stage through the use of appropriate mitigation, such as Sustainable Drainage Systems (SuDS).
Fluvial flood risk	Data provided by VOGC. Straight line distance/ overlap measurement.	This criterion will help to identify sites that fall within high flood risk areas. N.B. While it is important to avoid development in flood zones, there is the potential to address flood risk at the development management stage, when a 'sequential approach' can be taken to ensure that uses are compatible with flood risk. There is also the potential to design-in SuDS.

Table AB.2 overleaf presents the candidate site framework and assessment questions, where '++' represents major positive effects, '+' represents minor positive effects, '0' represents neutral/ no effects, '?' represents uncertain effects, '-' represents minor negative effects, and '--' represents major negative effects.

Table B.2 Candidate site framework and assessment questions

ISA Themes	ISA Objectives	ISA candidate site assessment questions	
Economy and employment	Support a sustainable, diverse, and resilient economy, with innovative responses to changing conditions and support for a strong future workforce.	++	New employment land proposed at the site.
		+	The site has good access to existing employment (within 1,600m of an employment centre)
		0	N/A
		?	Type of development uncertain at this stage.
		-	The site has poor access to existing employment (over 1,600m away from an employment centre)
		--	Development at the site could result in the loss of existing employment land.
Population and communities	To provide enough good quality market and affordable homes, and community infrastructure, in sustainable locations to meet identified needs.	++	The site has capacity to deliver a significant number of new homes (≥ 100 dwellings) and it does not intersect with a designated green wedge.
		+	The site has capacity to deliver new homes (<100 dwellings) and it does not intersect with a designated green wedge.
		0	The site will deliver alternative uses including employment, education, community facility, etc.
		?	N/A
		-	The site could deliver new homes; however, the site partially intersects with a designated green wedge.
		--	The site could deliver new homes; however, the site wholly intersects with a designated green wedge.
	To enhance design quality to create natural beautiful places for people that maintain and enhance community and settlement identity.	++	The site is within reasonable walking distance (≤ 800 m) to a primary and a secondary school ($\leq 1,600$ m).
		+	The site is within reasonable walking distance (≤ 800 m) to a primary or a secondary school ($\leq 1,600$ m).
		0	N/A
		?	N/A

ISA Themes	ISA Objectives	ISA candidate site assessment questions	
Health and Wellbeing	To improve the health and wellbeing of residents within Vale of Glamorgan promoting healthy and sustainable places.	-	The site is not within reasonable walking distance ($\leq 800\text{m}$) to a primary or a secondary school ($\leq 1,600\text{m}$).
		--	The site is $> 1,600\text{m}$ from a primary school and secondary school.
		++	The site is within 800m of a health service and an active travel route.
		+	The site is within 800m of a health service or an active travel route.
		0	N/A
		?	N/A
		-	The site is not within 800m of a health service or an active travel route.
		--	The site is not within 800m of a health service, or an active travel route and development would result in the loss of designated open/ recreational space.
		++	The site is within 800m of a formal leisure and open space.
		+	The site is within 800m of a formal leisure or open space.
		0	N/A
		?	N/A
		-	The site is not within 800m of a formal leisure and open space.
		--	The site is not within 1,600m of a formal leisure and open space.
Equalities, Diversity and Inclusion	To reduce poverty and inequality; tackle social exclusion and promote community cohesion.	++	The site falls within one of the 10% or 20% most deprived LSOAs in Wales and development proposes the delivery of a new or improved community facility/building/ space that meets a demonstrated need in the area, particularly where it supports the Welsh Language and various groups within the community.
		+	The site falls within one of the 10% or 20% (1 st quintile) most deprived LSOAs in Wales.
		0	The site falls within one of the 30-40% (2 nd quintile) most deprived LSOAs in Wales.
		?	The site falls within one of the 50-60% (3 rd quintile) most deprived LSOAs in Wales.

ISA Themes	ISA Objectives	ISA candidate site assessment questions	
Transport and Movement	Increase sustainable transport use and reduce the need to travel.	-	The site falls within one of the 40% least deprived (4 th / 5 th quintile) LSOAs in Wales.
		--	Development at the site would result in the unjustified loss of a community facility/ building/ space.
		++	The site is within close proximity (≤800m) to a railway station or bus stop, town/ retail centre and an active travel route.
		+	The site is within reasonable walking distance (≤800m) to two of the following three criteria: a railway station or bus stop, town/ retail centre, or an active travel route.
		0	N/A
		?	N/A
		-	The site is not within reasonable walking distance (>800m) of two of the following three criteria: a railway station or bus stop, town/ retail centre, or active travel route.
		--	The site is not within reasonable walking distance (>800m) to a railway station or bus stop, town/ retail centre, or active travel route.
Natural Resources	To identify and pursue any opportunities to reduce, or at least, minimise population exposure to air pollution.	++	N/A
		+	N/A
		0	The site does not contain and is not in close proximity (>1km) to a waterbody
		?	N/A
		-	The site contains or is in close proximity (<1km) to a waterbody
		--	N/A
		++	N/A
		+	The site does not intersect with a Groundwater Source Protection Zone (SPZ).
		0	N/A
		?	N/A

ISA Themes	ISA Objectives	ISA candidate site assessment questions	
		-	The site intersects with a Groundwater Source Protection Zone (SPZ).
		--	N/A
		++	N/A
		+	The site does not intersect with a Nitrate Vulnerable Zone (NVZ).
		0	N/A
		?	N/A
		-	The site intersects with a Nitrate Vulnerable Zone (NVZ).
		--	N/A
	To make the best use of previously developed land and existing buildings to minimise pressure for greenfield development and protecting, where possible, higher grade agricultural land.	++	The site is wholly brownfield land.
		+	The site is predominantly brownfield land (>50%) and contains low quality agricultural land (Grade 3b, 4, urban).
		0	N/A
		?	The site is predominantly greenfield land (≥50%) and contains low quality agricultural land (Grade 3b, 4, urban).
			or
			The site is predominantly brownfield land (>50%) and contains high quality agricultural land (Grade 1, 2 and 3a).
		-	The site is predominantly greenfield land (>50%) and contains high quality agricultural land (Grade 1, 2 and 3a).
		--	The site is wholly greenfield land and contains high quality agricultural land (Grade 1, 2 and 3a).

ISA Themes	ISA Objectives	ISA candidate site assessment questions	
	To protect mineral resources and ensure that an adequate supply of a diverse range of minerals is available over the long-term.	++	N/A
		+	The site does not intersect with a mineral safeguarding area.
		0	N/A
		?	N/A
		-	The site intersects with a mineral safeguarding area.
		--	The site is wholly within a mineral safeguarding area.
Biodiversity and Geodiversity	Protect and enhance biodiversity within and surrounding Vale of Glamorgan.	++	N/A
		+	The site is brownfield land.
		0	The site does not intersect and is not within 1km of any designated sites.
		?	The site does not intersect, but is within 1km of a designated site, and there is an element of uncertainty relating to the potential for significant effects.
		-	The site intersects or is adjacent to a regionally or locally (LNRs and SINCs) designated site and/ or priority habitats/ species.
		--	The site intersects or is adjacent to an internationally (SAC, SPA, Ramsar) or nationally (SSSI and Ancient Woodland) designated site.
Historic Environment	Preserve and enhance Vale of Glamorgan's heritage resource, including its historic environment and archaeological assets.	++	Regeneration of brownfield land that intersects with a historic asset
		+	Regeneration of brownfield land that is within 200m of a historic asset
		0	N/A
	Promote understanding of Vale of Glamorgan's cultural heritage.	?	The site is >200m from a historic asset
		-	The site is within 200m of a local or nationally designated historic assets
		--	The site intersects or is adjacent to a local or nationally designated historic assets
Landscape		++	The site is predominantly brownfield and does not intersect with a Special Landscape Area or Registered Landscape of Outstanding or Special Historic Interest.

ISA Themes	ISA Objectives	ISA candidate site assessment questions	
	To protect and enhance the quality and character of Vale of Glamorgan's landscape, seascape and townscape.	+	The site does not intersect with a Special Landscape Area, Country Park, or Registered Landscape of Outstanding or Special Historic Interest;
		0	N/A
		?	The site does not intersect with a Special Landscape Area, Country Park, or Registered Landscape of Outstanding or Special Historic Interest; however, the scale of development proposed (≥ 100 dwellings) on greenfield land has the potential for a negative effect. This is uncertain at this stage.
		-	The site intersects with a Special Landscape Area, Country Park, or Registered Landscape of Outstanding or Special Historic Interest or a Special Landscape Area.
		--	The site is predominantly greenfield and wholly falls within a Special Landscape Area, Country Park or Registered Landscape of Outstanding or Special Historic Interest.
Climate Change	Support the resilience of Vale of Glamorgan to the potential effects of climate change, including flooding from fluvial, coastal and surface water sources	++	Development at the site would reduce flood risk in the area.
		+	The site does not intersect with a high flood risk area (flood zone 2 and 3).
		0	N/A
		?	N/A
		-	The site intersects with flood zone 2 or 3.
		--	The site falls wholly within flood zone 2 or 3.
	Reduce Vale of Glamorgan's contribution to climate change from activities which result in greenhouse gas emissions and contribute to meeting the Council's target of net zero.	++	N/A
		+	The site is being promoted for low carbon development/ provision of renewable energy sources.
		0	N/A
		?	The site has the potential to deliver low carbon development/ renewable energy, however opportunities are not currently supported.
		-	N/A
		--	N/A

GIS analysis – Candidate Site appraisal findings

Table AC.1 presents GIS appraisal findings for each individual Candidate Site options. The numbers along the top of the table represent the following Candidate Site Framework criteria for each of the ISA topics and objectives (as shown in Table AB.2 above):

1. **Economy and employment** – support a sustainable, diverse, and resilient economy, with innovative responses to changing conditions and support for a strong future workforce.
2. **Population and communities** – to provide enough good quality market and affordable homes, and community infrastructure, in sustainable locations to meet identified needs (level of growth).
3. **Population and communities** – to enhance design quality to create natural beautiful places for people that maintain and enhance community and settlement identity (schools).
4. **Health and wellbeing** – to improve the health and wellbeing of residents within Vale of Glamorgan promoting healthy and sustainable places (health services and active travel routes)
5. **Health and wellbeing** – to improve the health and wellbeing of residents within Vale of Glamorgan promoting healthy and sustainable places (leisure and open space)
6. **Equality, diversity and inclusion** – to reduce poverty and inequality; tackle social exclusion and promote community cohesion.
7. **Transport and movement** – increase sustainable transport use and reduce the need to travel.
8. **Natural resources** – to conserve, protect and enhance the water environment, water quality and water resources (waterbodies).
9. **Natural resources** – to conserve, protect and enhance the water environment, water quality and water resources (groundwater Source Protection Zone).
10. **Natural resources** – to conserve, protect and enhance the water environment, water quality and water resources (Nitrate Vulnerable Zone).
11. **Natural resources** – to make the best use of previously developed land and existing buildings to minimise pressure for greenfield development and protecting, where possible, higher grade agricultural land.
12. **Natural resources** – to protect mineral resources and ensure that an adequate supply of a diverse range of minerals is available over the long-term.
13. **Biodiversity and geodiversity** – protect and enhance biodiversity within and surrounding Vale of Glamorgan
14. **Historic environment** – Preserve and enhance Vale of Glamorgan's heritage resource, including its historic environment and archaeological assets. Promote understanding of Vale of Glamorgan's cultural heritage.
15. **Landscape** – to protect and enhance the quality and character of Vale of Glamorgan's landscape, townscape, and seascape.

16. **Climate change** - Support the resilience of Vale of Glamorgan to the potential effects of climate change, including flooding from fluvial, coastal and surface water sources.
17. **Climate change** - Reduce Vale of Glamorgan's contribution to climate change from activities which result in greenhouse gas emissions and contribute to meeting the Council's target of net zero.

Table AB.3 GIS analysis of Candidate Sites

Site ID	Allocation type	Site name	Max no. homes	Economy	Homes	Schools	Health	Leisure	Equality	Transport	Water	SPZ	NVZ	ALC	Minerals	Biodiversity	Historic Env	Landscape	Flood risk	Net Zero
				1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
361	Other	Land at Port Road	N/A	+	0	--	+	-	-	++	-	+	+	?	+	-	-	+	-	?
364	Housing	Parc Hoddnant	250	-	++	++	+	+	-	+	-	+	+	?	--	--	--	?	-	?
366	Housing	Land South of Clive Road	45	+	+	--	-	--	-	+	0	+	+	?	--	?	-	-	+	?
367	Housing	Land South of Llantwit Major Road	80	-	+	--	+	--	-	+	-	+	+	--	--	--	--	--	-	?
371	Housing	Walters Farm		+	++	+	+	--	-	++	-	+	+	?	--	-	--	--	-	?
372	Leisure/ Tourism	Meurig's Camping and Glamping	N/A	-	0	--	-	--	-	-	0	+	+	--	--	?	--	--	+	?
377	Cemetery	Land adjoining Heritage Business Park	N/A	+	0	--	-	--	-	-	-	+	+	?	--	?	-	+	-	?
379	Retail	Land at Bridge House Farm	N/A	-	0	--	+	--	-	++	-	+	+	?	--	?	-	+	+	?
382	Minerals	Balas Farm	N/A	-	0	--	-	--	-	--	-	+	+	--	--	?	--	--	+	?
387	Housing	Land at Culverhouse Cross	140	+	-	--	-	--	-	-	-	+	+	--	--	?	?	--	-	?
393	Quarry Restoration	Wenvoe Quarry	N/A	-	0	--	-	--	-	--	-	+	+	--	--	?	--	--	-	?
396	Housing (Mixed)	North West Llantwit Major	70	+	+	--	+	--	-	++	-	+	+	?	--	?	--	+	-	?
400	Housing	Land off Penlan Road	30	+	-	++	++	-	-	-	-	+	+	?	-	?	-	+	+	?

Site ID	Allocation type	Site name	Max no. homes	Economy	Homes	Schools	Health	Leisure	Equality	Transport	Water	SPZ	NVZ	ALC	Minerals	Biodiversity	Historic Env	Landscape	Flood risk	Net Zero
				1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
444	Housing	Land north of Dinas Powys	850	+	-	++	++	-	-	++	-	+	+	?	+	--	--	--	-	?
407	Housing	Land West of Coed Mawr Road	81	-	+	+	++	-	-	++	-	+	+	?	--	?	-	--	-	?
411	Minerals	Argoed Isha Quarry	N/A	-	0	-	-	--	-	--	-	+	+	-	--	--	?	-	-	?
410	Minerals	The Quarries and adjoining Land	N/A	-	0	--	-	--	-	-	-	+	+	--	--	?	-	+	-	?
412	Retail	Land east of Port Road	N/A	-	0	--	-	--	-	+	-	+	+	?	--	?	-	+	-	?
416	Other	Pugh's Garden Village	N/A	-	0	--	-	--	-	+	-	+	+	++	--	+	-	-	-	?
424	Employment	Bro Tathan	N/A	++	0	--	++	--	?	++	-	+	+	--	-	?	--	+	-	?
426	Housing	Land at Ffordd y Milleniwm	56	+	+	+	++	-	+	++	-	-	+	++	+	+	+	++	-	?
427	Housing (Mixed)	Land at Readers Way	450	+	-	+	++	-	-	++	-	+	+	?	--	?	--	?	-	?
428	Housing (Mixed)	Land at North East Barry	1500	+	++	+	+	-	-	++	-	+	+	--	-	--	--	?	-	?
431	Housing	Land off Caerleon Road	46	-	-	++	++	-	?	++	-	+	+	?	+	?	-	+	-	?
432	Employment	Bro Tathan	N/A	++	0	-	++	--	?	++	-	+	+	?	-	?	--	+	-	?
433	Employment	Aberthaw Power Station	N/A	++	0	-	+	--	?	++	-	+	+	?	-	--	--	+	-	?
435	Housing	Land South of A48, Bonvilston	25	-	+	--	-	+	-	+	-	+	+	--	--	?	-	-	+	?

Site ID	Allocation type	Site name	Max no. homes	Economy	Homes	Schools	Health	Leisure	Equality	Transport	Water	SPZ	NVZ	ALC	Minerals	Biodiversity	Historic Env	Landscape	Flood risk	Net Zero
				1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
436	Green Wedge Designation	Land between Llantwit Major and Llanmaes	N/A	+	0	-	+	--	-	+	-	+	+	?	--	?	--	+	-	?
437	Housing	Swn Y Coed, Wenvoe	80	+	-	+	-	--	-	+	0	+	+	--	--	-	-	--	+	?
439	Leisure/ Tourism	Summerhouse Bay	N/A	-	0	--	-	--	-	--	-	+	+	?	--	-	--	+	-	?
441	Housing	Land at The Downs	20	+	-	--	-	--	-	-	-	+	+	--	--	?	-	--	-	?
449	Housing	Land at Weycock Cross, South of Port Road	180	+	-	+	+	--	-	++	-	+	+	?	--	?	-	?	-	?
451	Housing	Land at Oaktree Farm, East of Port Road	20	-	+	+	-	--	-	+	-	+	+	?	+	?	-	+	+	?
452	Employment	Hayes Road, Sully	N/A	+	0	-	+	--	-	++	-	+	+	++	-	+	--	++	-	?
455	Housing	Land North of Primrose Hill	220	+	++	++	++	-	-	++	-	+	+	--	--	?	-	--	+	?
456	Housing (Mixed)	Land West of St Athan	600	+	++	-	+	--	?	+	0	+	+	?	--	?	--	?	-	?
457	Housing	Land South of B4265, St Athan	40	+	+	-	+	--	?	+	0	+	+	?	--	?	--	+	+	?
458	Employment	Land between the Railway Line and the B4265, St Athan	N/A	++	0	--	-	--	?	-	-	+	+	--	--	?	-	+	-	?

Site ID	Allocation type	Site name	Max no. homes	Economy	Homes	Schools	Health	Leisure	Equality	Transport	Water	SPZ	NVZ	ALC	Minerals	Biodiversity	Historic Env	Landscape	Flood risk	Net Zero
				1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
468	Housing	Land to the south of Llangan Primary School	29	+	+	+	-	--	-	+	0	+	+	?	--	?	-	--	+	?
473	Retail	Land south of the B4265	N/A	+	0	-	++	-	-	++	-	+	+	?	--	?	--	+	+	?
476	Employment	Land at Culverhouse Cross	N/A	++	-	-	+	--	-	-	-	+	+	--	-	?	--	--	-	?
484	Employment	Land at Hayes Road	N/A	++	0	-	+	--	-	++	-	+	+	+	+	?	--	+	-	?
485	Housing	Land east of St Athan County Junior and Infants School	300	+	++	-	+	--	?	+	-	+	+	--	--	?	-	-	-	?
487	Housing	Land at Neptune Road	40	+	+	-	++	+	?	++	-	+	+	++	+	+	-	++	-	?
488	Housing	Land to the South of Rhose train station	270	+	++	+	++	+	-	++	-	+	+	?	--	-	--	?	-	?
492	Housing (Mixed)	Land North of Porthkerry Road	94	+	+	+	+	+	-	++	-	+	+	?	--	?	--	+	+	?
494	Housing	Land South West of Sigingstone (Parcel 1)	15	+	+	--	-	--	-	--	-	+	+	--	--	?	-	+	-	?
506	Renewable Energy	Cae Maen Farm	N/A	-	0	--	-	--	-	-	-	+	+	?	--	--	-	--	-	?
507	Renewable Energy	East Downs Farm	N/A	-	0	--	-	--	-	-	-	+	+	--	--	?	--	-	-	+

Site ID	Allocation type	Site name	Max no. homes	Economy	Homes	Schools	Health	Leisure	Equality	Transport	Water	SPZ	NVZ	ALC	Minerals	Biodiversity	Historic Env	Landscape	Flood risk	Net Zero
				1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
508	Renewable Energy	Fonmon	N/A	+	0	--	-	--	-	-	-	+	+	--	--	--	--	--	-	+
510	Renewable Energy	Gileston Farm	N/A	+	0	-	+	--	?	+	-	+	+	--	--	-	--	+	-	+
511	Renewable Energy	Old Beaupre Farm	N/A	-	0	-	-	--	-	+	-	+	+	--	--	--	--	--	+	+
512	Renewable Energy	Pant Wilkin Stables	N/A	-	0	--	-	--	-	-	-	+	+	--	--	--	--	-	-	+
513	Renewable Energy	St Hilary Farm	N/A	-	0	--	-	--	-	--	-	+	+	--	--	--	-	--	-	+
516	Renewable Energy	Tregruff	N/A	-	0	--	-	--	-	--	-	+	+	--	--	-	--	--	-	+
515	Renewable Energy	Treguff Fach Farm	N/A	-	0	--	-	--	-	--	-	+	+	--	--	--	--	--	-	+
577	Renewable Energy	Gigman Barn	N/A	-	0	--	-	--	-	--	-	+	+	--	--	-	-	--	-	+
517	Renewable Energy	Ty Draw	N/A	-	0	--	-	--	-	--	-	+	+	--	--	--	--	--	-	+
551	Employment	Land at Model Farm	N/A	++	-	-	+	+	-	++	-	+	+	-	-	--	--	-	-	?
552	Housing	Land off Port Road	160	-	+	--	-	--	-	+	-	+	+	--	--	--	--	--	+	?
554	Employment	Land South of Junction 34, M	N/A	++	0	--	-	--	-	--	-	+	+	--	-	--	--	--	-	?
544	Barry Docks	The Port of Barry	Unclear	+	-	+	++	++	+	++	-	-	+	?	-	--	--	+	-	?
N/A	Housing	Land at Higher End	220	+	++	--	+	--	?	+	0	+	+	?	+	?	--	?	-	?

Site ID	Allocation type	Site name	Max no. homes	Economy	Homes	Schools	Health	Leisure	Equality	Transport	Water	SPZ	NVZ	ALC	Minerals	Biodiversity	Historic Env	Landscape	Flood risk	Net Zero
				1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
N/A	Housing	Land at Church Farm, St Athan	250	+	+	--	+	--	?	+	-	+	+	?	+	?	--	?	-	?
N/A	Housing	Former Stadium Site / Land adjacent to Burley Place	65	+	++	--	-	--	-	+	-	+	+	++	+	+	-	-	+	?
N/A	Housing	Land between new Northern Access Road and Eglwys Brewis Road	375	+	++	--	+	--	-	++	-	+	+	--	+	?	--	?	-	?
N/A	Housing	Land to the west of Pencoedtre Lane	137	-	++	+	+	-	+	++	-	+	+	?	+	?	--	?	-	?
N/A	Housing	Land adjoining St Athan Road	130	-	++	++	++	-	-	++	-	+	+	++	+	+	--	-	-	?
N/A	Housing	Land south of Llandough Hill / Penarth Road	130	+	+	+	++	+	-	++	-	+	+	?	+	?	-	?	-	?
N/A	Housing	Former Eagleswell Primary School	72	+	++	+	++	-	?	++	-	+	+	++	+	+	?	++	-	?
N/A	Housing (Mixed)	Land north of the Railway Line	700	+	++	+	++	+	-	++	-	+	+	?	+	?	--	?	-	?
N/A	Housing (Mixed)	Land at and to the east of Upper Cosmeston Farm	576	-	-	--	++	+	-	++	-	+	+	?	+	?	-	?	-	?
359	Housing	Agricultural land to the south of A48	28	-	+	--	-	+	-	+	-	+	+	--	--	?	--	-	-	?

Site ID	Allocation type	Site name	Max no. homes	Economy	Homes	Schools	Health	Leisure	Equality	Transport	Water	SPZ	NVZ	ALC	Minerals	Biodiversity	Historic Env	Landscape	Flood risk	Net Zero
				1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
374	Housing	Land west of Duffryn Lane	100	-	++	+	-	--	-	+	-	+	+	--	-	?	--	--	-	?
355	Housing	Land West of St Brides Road	90	-	+	--	-	--	-	+	0	+	+	?	-	-	-	+	+	?
356	Housing	Land east of Pen-Y-Turnpike Road	200	-	--	+	++	--	-	++	-	+	+	?	+	--	-	--	-	?
362	Housing	Land at Moat Farm	10	-	+	--	--	--	-	--	-	+	+	?	--	?	--	--	-	?
363	Housing	Land forming part of The Beaupre Estate	Unclear	-	+	--	--	--	-	--	-	+	+	--	--	?	?	--	+	?
365	Housing	Leckwith Quay	250	-	++	--	+	--	-	-	-	+	+	++	-	+	-	--	-	?
368	Housing	Former Cogan Reservoir Site	Unclear	+	+	+	++	+	-	++	-	+	+	++	+	+	-	+	-	?
369	Housing	Land South of Cross Common Road	40	-	+	--	+	-	-	++	-	+	+	?	--	--	-	+	-	?
373	Housing	Cae Efail, land off Llantwit Road	Unclear	-	+	--	-	--	-	+	0	+	+	?	-	?	-	+	+	?
376	Housing	Land West of Swanbridge Road (Phase 3)	260	+	++	--	++	--	-	++	-	+	+	--	+	?	--	?	-	?
378	Housing	Land North East of Primary School, Peterston-Super-Ely	50	-	+	+	--	--	-	-	-	+	+	--	--	-	-	--	-	?
380	Housing	Land at Trepit Road	38	-	+	--	--	--	-	+	0	+	+	?	-	?	-	+	+	?

Site ID	Allocation type	Site name	Max no. homes	Economy	Homes	Schools	Health	Leisure	Equality	Transport	Water	SPZ	NVZ	ALC	Minerals	Biodiversity	Historic Env	Landscape	Flood risk	Net Zero
				1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
565	Housing	Land at Nant Canna, Treoes, Option 2	27	-	+	--	--	--	-	-	-	+	+	--	-	?	-	--	-	?
384	Housing	Hayes Lane	Unclear	+	+	--	+	--	+	+	-	+	+	?	+	--	-	+	-	?
385	Housing	Land at Bonvilston	123	-	+	--	--	+	-	+	-	+	+	--	-	?	--	-	-	?
386	Housing	Land at Hazelwood	70	-	+	--	--	--	-	+	-	+	+	--	-	?	--	+	+	?
389	Housing	Land at Three Golden Cups	34	-	+	--	--	--	-	-	-	+	+	--	--	?	--	+	-	?
390	Housing	Land at Lanfair	24	-	+	--	--	--	-	--	-	+	+	?	--	?	-	--	+	?
391	Housing	Land off Wick Road, Ewenny, Option 1	62	-	+	--	--	--	-	+	-	-	+	?	--	?	--	+	+	?
392	Housing	Land at St Nicholas	146	-	++	+	--	--	-	+	-	+	+	--	--	?	-	--	-	?
395	Housing	Glebelands at Llanmaes	53	-	+	--	+	--	-	++	-	+	+	?	--	?	--	+	+	?
397	Housing	Land to the south of The Swallows	55	+	+	--	+	--	-	-	-	+	+	?	--	?	--	-	-	?
398	Housing	Land to north and west of westwinds business park	30	+	+	+	+	--	-	-	0	+	+	?	--	?	-	--	+	?
399	Housing	Land at St Athan	88	+	+	--	+	--	-	+	-	+	+	?	--	?	-	--	-	?
401	Housing	Land to the west of Fferm Goch House	51	+	+	+	+	--	-	-	-	+	+	--	--	?	-	--	+	?

Site ID	Allocation type	Site name	Max no. homes	Economy	Homes	Schools	Health	Leisure	Equality	Transport	Water	SPZ	NVZ	ALC	Minerals	Biodiversity	Historic Env	Landscape	Flood risk	Net Zero
				1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
402	Housing	Land adjacent to LLangan Primary School	30	+	+	+	+	--	-	-	0	+	+	?	--	?	-	--	+	?
403	Housing	Land east of Llangan	25	+	+	--	+	--	-	-	-	+	+	?	--	?	-	--	-	?
404	Housing	Land east of Heol Fain	45	-	+	--	--	--	-	+	0	+	+	?	--	?	-	+	-	?
405	Housing	Land at Waun Gron, Ystradowen	27	-	+	--	--	+	-	-	-	+	+	--	--	?	-	+	-	?
422	Housing	Land to the northeast of Llancarfan	Unclear	-	+	--	--	--	-	--	-	+	+	--	--	?	--	--	+	?
421	Housing	Land At Manor House	25	-	+	+	--	--	-	+	-	+	+	--	--	?	--	--	-	?
408	Housing	Land at East Aberthaw (North)	10	+	+	--	+	--	-	-	-	+	+	?	--	?	--	+	+	?
409	Housing	Land adjacent to Waterton Lodge	45	-	+	+	--	--	-	-	-	-	+	--	--	?	?	+	+	?
414	Housing	Land to the east of Fonmon Road	120	+	--	--	++	--	-	++	0	+	+	?	--	?	-	?	-	?
417	Housing	Old Dairy Site	50	-	+	--	--	+	-	+	-	+	+	-	--	?	-	--	+	?
418	Housing	Land West of Fonmon Road	156	+	++	--	++	-	-	++	-	+	+	?	-	?	--	?	+	?
419	Housing	Land at The Grange, Pen-Y-Turnpike Road	200	+	--	+	++	-	-	++	-	+	+	+	+	?	--	--	-	?

Site ID	Allocation type	Site name	Max no. homes	Economy	Homes	Schools	Health	Leisure	Equality	Transport	Water	SPZ	NVZ	ALC	Minerals	Biodiversity	Historic Env	Landscape	Flood risk	Net Zero
				1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
423 (W)	Housing	Land North Dinas Powys	245	-	--	--	--	--	-	-	-	+	+	?	+	--	-	--	-	?
423 (E)	Housing	Land North Dinas Powys	245	+	--	+	++	-	-	++	-	+	+	?	+	?	-	--	-	?
429	Housing	Land at Pen y Turnpike Road	75	+	+	--	+	--	-	+	-	+	+	?	--	--	-	--	+	?
430	Housing	Land at Ystradowen	67	-	+	--	--	+	-	-	-	+	+	--	--	?	-	+	+	?
438	Housing	Land to the South of Church Rd	11	-	+	--	--	--	-	-	-	+	+	?	--	?	-	--	+	?
440	Housing	Land North of Church Road	18	-	+	--	--	--	-	-	-	+	+	?	--	?	-	--	+	?
442	Housing	Land at Trehill, South of A48	80	-	+	+	--	-	-	+	-	+	+	--	--	?	--	--	+	?
443	Housing	Land at Caerleon Road	150	-	--	++	+	-	0	++	-	+	+	?	+	?	?	?	-	?
447	Housing	Land at Ringwood Crescent	27	+	+	--	+	--	-	+	-	+	+	?	-	?	?	-	-	?
453	Housing	Land to the East of Colwinston	65	-	+	+	--	--	-	--	-	-	+	--	--	?	--	+	-	?
454	Housing	Land at Peterston Super Ely	150	-	++	+	--	--	-	-	-	+	+	--	-	--	-	--	-	?
454	Housing	Land at Peterston Super Ely	150	-	++	+	--	--	-	-	-	+	+	--	--	--	-	--	-	?
461	Housing	Land at Boverton	40	+	+	+	+	-	-	++	-	+	+	?	-	?	--	+	-	?

Site ID	Allocation type	Site name	Max no. homes	Economy	Homes	Schools	Health	Leisure	Equality	Transport	Water	SPZ	NVZ	ALC	Minerals	Biodiversity	Historic Env	Landscape	Flood risk	Net Zero
				1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
460	Housing	Land adjoining The Spinney	15	-	+	+	--	-	-	+	-	+	+	-	-	?	--	+	+	?
464	Housing	Land opposite the St David's Church in Wales Primary School	46	-	+	+	--	--	-	--	-	+	+	--	--	?	--	+	+	?
480	Housing	Land at Culverhouse Cross	1085	+	--	--	+	--	-	-	-	+	+	--	-	?	--	--	-	?
481	Housing	Land to the North of Boverton Road	22	+	+	+	+	-	-	++	-	+	+	?	-	?	--	+	+	?
486	Housing	Land to the South of the A48 at St Nicholas	140	-	++	--	+	--	-	+	-	+	+	--	--	?	-	--	+	?
490	Housing	Land to the north of Pendoylan	35	-	+	+	--	--	-	--	-	+	+	--	-	-	-	--	+	?
495	Housing	Land South West of Sigingstone (Parcel 2)	27	+	+	--	+	--	-	--	-	+	+	--	--	?	-	+	-	?
496	Housing	Land South West of Sigingstone (Parcel 3)	33	+	+	--	+	--	-	--	-	+	+	--	--	?	-	+	+	?
514	Housing	Land East of St.Athan Road.	200	-	++	++	+	-	-	++	-	+	+	--	-	-	-	-	-	?
549	Housing	Land at Peterston Super Ely	350	-	++	--	--	--	-	-	-	+	+	--	-	--	-	--	-	?

Site ID	Allocation type	Site name	Max no. homes	Economy	Homes	Schools	Health	Leisure	Equality	Transport	Water	SPZ	NVZ	ALC	Minerals	Biodiversity	Historic Env	Landscape	Flood risk	Net Zero
				1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
549	Housing	Land at Peterston Super Ely	350	-	++	+	++	--	-	+	-	+	+	--	--	--	-	--	-	?
555	Housing	Land off Vale Court, Cowbridge	80	-	+	++	+	-	-	++	-	+	+	--	--	?	-	--	+	?
570	Housing	Land off Wick Road, Ewenny, Option 2	54	-	+	--	--	--	-	+	-	-	+	?	--	?	--	+	+	?
571	Housing	Land off Wick Road, Ewenny, Option 3	33	-	+	--	--	--	-	+	-	-	+	?	--	?	--	+	+	?
383	Housing	Land at Nant Canna, Treoes, Option 1	54	-	+	--	--	--	-	-	-	+	+	--	-	?	-	--	-	?

Appendix C Appraisal of growth options

C.1 Level of growth

The three options for low, medium, and high growth, are as follows:

- **Low growth:** 151 to 211 dwellings per annum, and a reduction of 125 jobs to an increase of 25 jobs per annum (WG-2014 and Employment-led OE scenarios).
- **Medium growth:** 316 to 527 dwellings per annum and 191 to 341 new jobs per annum (WG-2018-LOWPOP, PG-10Y, PG-Long Term, WG-2018, Employment-led ELR (CR 1-1), Dwelling-led 10Y, WG-2018-HIGHPOP, and Employment-led ELR scenarios).
- **High growth:** 637 to 698 dwellings per annum and 426 to 493 new jobs per annum, (PG-5Y and Dwelling-led 5Y scenarios).

These options are assessed in relation to each of the ten ISA themes established through scoping and the detailed findings are presented overleaf.

ISA theme: Economy and employment

Options	Low growth	Medium growth	High growth
Rank	3	2	1
Significant effect?	Uncertain	Yes – Positive	Yes – Positive

The high growth option supports the highest level of employment and housing growth. The dwelling-led 5Y and PG-5Y scenarios will deliver 493 and 426 new jobs per year respectively. This is alongside 698 and 637 new dwellings per year respectively, and therefore housing growth will outpace employment growth under both scenarios. The high growth option is most likely to support the delivery of the South Wales Metro. In addition, the high growth option is most likely to deliver growth, and associated benefits, across the entire local authority area. However, it is recognised that a high level of employment growth will likely require a large amount of employment land, which could be a barrier if there is not enough available land.

The medium growth option supports varying levels of employment and housing growth. The employment-led ELR scenario will deliver 341 new jobs per year, whilst the WG-2018-LOWPOP scenario will only deliver 191 new jobs per year. This is alongside 527 and 316 new dwellings per year respectively, and therefore housing growth will also outpace employment growth under the medium growth option. This option is still associated with the benefits outlined under the high growth option, but to a lesser extent. A moderate amount of employment land will be needed, and therefore land availability, whilst still a potential issue, is less of an issue under this option when compared to the high growth option.

The low growth option supports the lowest level of employment and housing growth. The employment-led OE and WG-2014 scenarios will deliver 25 and -126 new jobs per year respectively. This is alongside 211 and 151 new dwellings per year respectively, and therefore both scenarios, but WG-2014 in particular, will likely result in an insufficient number of new jobs to support additional housing growth. WG-2014 will also likely result in a shrinking local economy as jobs are projected to decrease. The low growth option is least likely to support the delivery of the South Wales Metro, and growth is more likely to be focused in dispersed locations as there is unlikely to be a high enough level of growth to distribute growth to every settlement in the Vale of Glamorgan. This could lead to unequal employment opportunities across the Vale of Glamorgan. However, it is recognised that less employment land will be needed under this option, and therefore land availability is unlikely to be an issue.

In light of the above, the high growth option is ranked first, followed by the medium growth option and then the low growth option. The first two options are considered likely to lead to **significant long-term positive effects** as they will both likely deliver enough new jobs per year to support the growing population. Meanwhile, **uncertainty** is noted under the low growth option as growth is unlikely to be distributed evenly across the Vale of Glamorgan, and one of the scenarios under this option (WG-2014) could even lead to a shrinking local economy. However, it is recognised that housing growth may stimulate the economy through an increase in the population, as well as the short-term employment opportunities associated with construction. Still, this is unlikely to be significant given the low housing growth projections for the scenarios under this option.

ISA theme: Population and communities

Options	Low growth	Medium growth	High growth
Rank	3	2	1
Significant effect?	No	Yes – Positive	Yes – Positive

The high growth option supports the highest level of housing growth. The dwelling-led 5Y and PG-5Y scenarios will deliver 698 and 637 new dwellings per year respectively. A good range of house types and tenures in a variety of locations could be supported through this option, including affordable homes. In addition, a high level of housing growth will likely support accessibility improvements and other community benefits associated with development. This could include new and improved services and facilities, infrastructure upgrades, and new public open spaces and improvements to the public realm. However, it is also recognised that higher levels of housing growth also have the potential to place increased pressure on existing services and facilities and infrastructure, as well as settlement identities. It would be important to ensure that higher levels of growth can be accommodated in areas which minimise contributions to coalescence and avoid excessive growth within smaller settlements.

The medium growth option supports varying levels of housing growth. The employment-led ELR scenario will deliver 527 new dwellings per year, whilst the WG-2018-LOWPOP scenario will only deliver 316 new dwellings per year. A good range of house types and tenures could still be supported through this option, including affordable homes, but this will be lower than through the high growth option. The same can be said for accessibility improvements and other community benefits associated with development.

The low growth option supports the lowest level of housing growth. The employment-led OE and WG-2014 scenarios will deliver 211 and 151 new dwellings per year respectively. Opportunities to direct a good range of house types and tenures across the entire local authority area would be limited through this option given the low housing growth projections. In addition, low growth is more likely to drive up housing prices and exacerbate affordability issues due to an insufficient housing stock. This could limit opportunities for the younger population to live and work in the Vale and lead to difficulties in sustaining existing services and facilities.

In conclusion, it is considered that as the level of growth increases, so does the likelihood for significant positive effects in relation to this ISA topic. Therefore, the options are ranked according to the level of growth they deliver, with the high growth option ranked first, followed by the medium growth option and then the low growth option. The first two options are considered likely to lead to **significant long-term positive effect** as they support high/ moderate population growth. No significant effects are anticipated for the low growth option as the level of growth delivered through this option is unlikely to deliver a good range of house types and tenures across the Vale and could lead to affordability issues.

ISA theme: Health and wellbeing

Options	Low growth	Medium growth	High growth
Rank	No	Yes – Positive	Yes – Positive
Significant effect?	3	2	1

General health in the Vale of Glamorgan is in line with the national average. According to 2021 census data¹⁸, 47.6% of residents are in 'very good health', 32.6% are in 'good health', 13.6% are in 'fair health', 4.7% are in 'bad health', and 1.5% are in 'very bad health'.

According to the Welsh Index of Multiple Deprivation (WIMD) (2019)¹⁹, the Vale only contains three Lower Super Output Areas (LSOAs) within the 10% most deprived in Wales, which are all located in Barry.

Household deprivation can be defined by 'dimensions of deprivation', which are indicators based on four selection household characteristics: education, employment, health and housing²⁰. In the Vale of Glamorgan, 32.7% of households are deprived in one dimension, 14.0% are deprived in two dimensions, 3.6% are deprived in three dimensions, and 0.1% are deprived in all four dimensions.

Given the high-level nature of the options at this stage, it is difficult to highlight any significant differences between them. However, it could be said that the high growth option has the greatest potential to grow the labour force and introduce new skills or economic opportunities. Conversely, it could also be said that as the level of growth increases, so does the potential for a greater loss of green/ public open space, although it is recognised that this is dependent on the location of development. The high growth option could also put pressure on existing health services. Despite this, there are certain health benefits associated with growth, including the potential for new or improved community services and facilities, including healthcare, open spaces, green infrastructure and retail and leisure. In addition, development which delivers transport and infrastructure upgrades can improve accessibility and safety for residents. The importance of improved connectivity and accessibility to local facilities and open space, particularly in light of the Covid-19 pandemic, highlights the potential for the high growth option to support more positive health outcomes. However, there is also a need to manage the impacts of growth on local infrastructure capacity to ensure that no unnecessary burdens are placed on existing infrastructure.

Overall, the high and medium growth options are considered likely to lead to **significant long-term positive effects** as they deliver a high/ moderate level of housing and employment growth, which will positively impact the health and wellbeing of new and existing residents through the benefits associated with growth. However, it is considered that the high growth option has the greatest potential to deliver such benefits, and therefore this option is ranked first. No significant effects are anticipated for the low growth option, as whilst the scenarios under this option deliver some housing growth, they deliver little (25 new jobs per year under the employment-led OE scenario) to no (-126 jobs per year under the WG-2014 scenario) employment growth.

¹⁸ Office for National Statistics (2021): 'Census 2021', [online] available to access via [this link](#)

¹⁹ Welsh Government (2019): 'Welsh Index of Multiple Deprivation (WIMD)', [online] available to access via [this link](#)

²⁰ Office for National Statistics (2022): 'Household deprivation', [online] available to access via [this link](#)

ISA theme: Equality, diversity, and social inclusion

Options	Low growth	Medium growth	High growth
Rank	3	2	1
Significant effect?	No	Yes – Positive	Yes – Positive

At this stage, the location of growth is unknown, and as a result it is difficult to determine how specific communities and protected characteristics are likely to be affected by the options. As indicated through the appraisal under other ISA topics, increased levels of growth provide an opportunity to deliver a greater mix of housing and employment to meet the needs of all members of the community. There is also the potential to deliver greater improvements to community infrastructure and the public realm, but this is uncertain at this stage. In this context, a higher level of growth could help to address areas of deprivation depending on where it is located. Furthermore, a higher level of growth could also be more likely to meet the needs of people across a wider area of the Vale.

The high growth option will likely result in the most investment into opportunities across the Vale, including for people living in deprived communities, as it delivers enough growth to be distributed evenly across the entire local authority area. Increased levels of development will likely result in a greater variety of housing types and tenures, which will help meet different needs across the community. Increasing growth under this option could also encourage more businesses to operate in the Vale of Glamorgan, which will be beneficial to residents.

The medium growth option will likely deliver the same benefits as those outlined under the high growth option, although to a lesser degree as it delivers a lower level of both housing and employment growth.

The low growth option, whilst having a relatively moderate level of housing growth, is likely to exacerbate existing deprivation and inequality issues as the scenarios under this option deliver little/ no employment growth. Notably, this is also likely to lead to fewer opportunities for new education and training, thus exacerbating deprivation and inequality issues. Nevertheless, new housing is still likely to deliver some affordable homes, although this will be minor compared to the other two options.

In conclusion, the high and medium growth options are considered likely to **significant long-term positive effects** as they deliver the highest/ second highest level of growth and therefore have the greatest potential to lead to investment into opportunities across the whole Vale of Glamorgan, whilst delivering a variety of housing types and tenures and increasing services across the local authority area. No significant effects are anticipated for the low growth option due to the mismatch between housing and employment growth under the scenarios in this option. In terms of ranking, the options are ranked according to the level of growth they deliver.

ISA theme: Climate change (mitigation and adaptation)

Options	Low growth	Medium growth	High growth
Rank	1	2	3
Significant effect?	Yes – Positive	Uncertain	Uncertain

The high growth option could result in development in less sustainable locations if enough land is not available in locations with good sustainable transport connectivity, increasing the need to travel. In addition, high growth will increase demand on existing road infrastructure, and therefore this option will need to be accompanied by greater investment into sustainable alternatives. However, it is also recognised that high growth brings greater opportunities for investment, which could combat this issue.

Whilst the medium growth option delivers a lower level of growth compared to the high growth option, there might still be a shortage of suitable sites, potentially leading to some sites being located in less well-connected areas. Growth through this option will still increase demand on existing road infrastructure, but as with the high growth option, there should still be good opportunities for investment into sustainable alternatives.

The low growth option provides the greatest opportunity to prioritise sites with strong sustainable transport connections that will reduce the need to travel. Whilst new infrastructure will still be required to facilitate growth, this will likely be more manageable than under the high and medium growth options. However, opportunities for investment may be more limited under this option, which may reduce the potential to link new development and employment sites with the South Wales Metro. The lower growth options also does not generate many new jobs and thus is less likely to reduce out-commuting.

Ultimately, the nature and significance of the effects will be dependent on where development is located, as well as the infrastructure improvements that will accompany development. However, when considering the level of housing and employment growth alone, the low growth option is considered likely to lead to **significant long-term positive effects** because it provides the greatest opportunity to prioritise sites in sustainable locations with existing sustainable transport connections. **Uncertainty** is noted for the remaining two options as some development may need to be located in less sustainable locations, which would rely on the delivery of new infrastructure, and the potential of these options to deliver this is not clear at this stage. The options are ranked from lowest to highest level of growth.

ISA theme: Transport and movement

Options	Low growth	Medium growth	High growth
Rank	1	2	3
Significant effect?	Yes – Positive	Uncertain	Uncertain

As set out under the previous ISA topic, the high growth option could result in development in less sustainable locations if enough land is not available in locations with existing sustainable transport connectivity, increasing the need to travel. In addition, high growth will increase demand on existing road infrastructure, and therefore this option will need to be accompanied by greater investment in sustainable alternatives. However, it is also recognised high growth brings greater opportunities for investment.

Whilst the level of growth under the medium growth option is lower when compared to the high growth option, there might still be a shortage of suitable sites, potentially leading to some sites being located in less well-located areas. Housing and employment growth will likely increase demand on existing road infrastructure, and this option will therefore also require greater investment into sustainable alternatives. However, as with the high growth option, it is noted that high growth brings greater opportunities for investment.

The low growth option provides the greatest opportunity to prioritise sites with strong sustainable transport connections that will reduce the need to travel. Whilst new infrastructure will still be required to facilitate growth, this is more manageable than under the high and medium growth options. However, it is recognised that opportunities for investment may be more limited.

Ultimately, the nature and significance of effects will be dependent on where development is located, as well as the infrastructure improvements that will accompany development. However, when considering the level of housing and employment growth alone, the low growth option is likely to lead to **significant long-term positive effects** because it provides the greatest opportunity to prioritise sites in sustainable locations with existing sustainable transport connections. **Uncertainty** is noted for the high and medium growth options because some development may need to be located in less sustainable locations, which would rely on the delivery of new infrastructure, and the potential of these options to deliver this is not clear at this stage. The options are ranked from lowest to highest level of growth.

ISA theme: Natural resources (air, soil, minerals, and water)

Options	Low growth	Medium growth	High growth
Rank	1	2	3
Significant effect?	No	Uncertain	Yes – Negative

As the level of growth increases, so does the likelihood for negative impacts on natural resources through the potential loss of greenfield/ agricultural land and mineral resources; reduced air quality as a result of increased traffic; and increased demand for water resources.

The urban areas in the Vale of Glamorgan are unlikely to be underlain by productive agricultural land according to the predictive Agricultural Land Classification (ALC) map²¹. However, agricultural land in the remainder of the Vale of Glamorgan ranges from grade 2/ 3a to grade 3b/ 4/ 5, with grade 3b being the most prevalent grade. As the exact location of growth under each option is unknown at this stage, it is not possible to determine how much Best and Most Versatile (BMV) (grades 1, 2 and 3a) land could be lost as a result of development. However, it could be assumed that as the level of growth increases, so does the likelihood of development being located on BMV land due to land availability constraints.

Under the high growth option, water consumption is likely to be high, potentially placing pressure on existing infrastructure. A considerable amount of land will also be required to support high levels of growth, which could put natural landscapes and productive agricultural land at risk from development. Nevertheless, there are greater opportunities to encourage sustainable lifestyles and development under the high growth option, as it is more likely to attract greater investment.

The amount of land required for new homes and employment sites is more manageable under the medium growth option, and therefore there is likely to be less development pressure on natural landscapes and productive agricultural land. However, the level of growth delivered through this option will still put some pressure on water consumption as networks will have to incorporate additional capacity.

The low growth option is the least likely to lead to development pressure on natural landscapes and productive agricultural land. Whilst growth will still put some pressure on water consumption, this will be lowest through this option. Ultimately, the natural environment and resources in the Vale of Glamorgan are most likely to be protected under this option and effects are less likely to be of significance.

In light of the above, the low growth option is ranked first and considered most likely to avoid significant impacts arising. The medium growth option is ranked second, with **uncertainty** noted, whilst the high growth option is ranked last and considered most likely to lead to **significant long-term negative effects** due to the amount of land that will likely be required to deliver the level of growth required of this option.

²¹ Welsh Government (no date): 'Predictive Agricultural Land Classification (ALC) Map', [online] available to access via [this link](#)

ISA theme: Biodiversity and geodiversity

Options	Low growth	Medium growth	High growth
Rank	1	2	3
Significant effect?	Uncertain	Uncertain	Uncertain

The Vale of Glamorgan overlaps with several designated sites for biodiversity, including two Special Areas of Conservation (SACs) (Severn Estuary and Dunraven Bay), one Special Protection Area (SPA) and Ramsar site (Severn Estuary), and several Sites of Special Scientific Interest (SSSIs).

The high growth option is likely to result in pressure to find suitable development sites to meet the scale of growth proposed, which could lead to development being located near designated sites for biodiversity. However, this option also brings significant opportunities to ensure new development maximises green infrastructure and creates new, or enhances existing, ecological networks in urban areas. A higher level of growth should also correlate with higher planning contributions, which could be spent to mitigate any impacts of higher growth and enhance/ protect designated sites.

Whilst the medium growth option is still likely to result in pressure to find suitable development sites, this pressure will be less than under the high growth option. This option is associated with the same opportunities as outlined under the high growth option.

The low growth option is less likely to result in pressure to find suitable development sites. In this respect, this option will allow sites to be chosen more selectively, away from designated sites for biodiversity and existing ecological networks. This option also bring significant opportunities to ensure new development maximises green infrastructure and creates or enhances existing ecological networks in urban areas. As significantly less land will be required for new jobs under this option, development pressure for new employment sites is greatly reduced. However, it is noted that under this option there will likely be less money from planning contributions to mitigate any impacts of growth on biodiversity and geodiversity and enhance/ protect designated sites.

In light of the above, the low growth option is ranked first, followed by the medium and then high growth option. **Uncertainty** is noted across all three options as the location of growth is unknown at this stage, which will determine the impact of development on designated sites.

ISA theme: Historic environment

Options	Low growth	Medium growth	High growth
Rank	2	1	3
Significant effect?	Uncertain	Uncertain	Uncertain

The Vale of Glamorgan contains numerous listed buildings, scheduled monuments and registered parks and gardens. It also contains one registered historic landscape (Llancarfan) and 39 conservation areas. Ultimately, the impacts of the different growth options will depend on the precise location of development, as well as its design and layout, which is uncertain at this stage.

The high growth option may result in pressure to increase the density of development, or to locate growth in areas which could negatively impact on the setting of heritage assets. However, high demand for sites could also help bring derelict heritage assets, which may have otherwise been overlooked, back into use, and provide developers with greater economic incentive to restore/ enhance listed buildings. In addition, there is high employment growth under this option, with potential to generate employment opportunities within the tourism and heritage sector.

Concerning the medium growth option, the same opportunities and issues regarding heritage assets apply as those outlined under the high growth option, although to a lesser extent.

The low growth option is likely to reduce the need to increase the density of development or locate it in areas which could negatively impact on the setting of heritage assets. In this respect, under this option it should be easier to protect conservation areas and the heritage assets associated with them, as well as direct development away from sensitive historic landscapes. However, it is also recognised that the low growth option will provide less opportunities associated with the tourism and heritage sector due to the much lower level of employment growth delivered under this option.

Overall, **uncertainty** is noted under all three options as the precise location of development under each option is not known at this stage. In terms of rankings, the medium growth option is ranked highest as it delivers a moderate level of growth, limiting the potential of development to negatively impact heritage assets when compared to the high growth option. At the same time, it offers greater potential to boost the tourism and heritage sector when compared to the low growth option. The low growth option is ranked second, above the high growth option, as it is less likely to negatively impact the setting of heritage assets due to increased flexibility in choosing sites.

ISA theme: Landscape

Options	Low growth	Medium growth	High growth
Rank	1	2	3
Significant effect?	No	Uncertain	Yes – Negative

The Vale of Glamorgan contains two Landscapes of Outstanding Historic Interest, as well as two Country Parks (Cosmeston Lakes and Porthkerry Park) and the Glamorgan Heritage Coast. In addition, there are likely to be many locally important landscapes across the county borough which contribute to the setting and character of the Vale of Glamorgan. As with the previous ISA topic, the nature and significance of effects on landscape/ townscape/ villagescape character will ultimately depend on the precise location of growth, as well as the design and layout of development.

The high growth option is likely to put the most pressure on land availability within existing urban and village boundaries. It is unlikely that the level of growth delivered through this option could be accommodated on previously developed land, which will inevitably put pressure on greenfield sites.

Whilst lower growth is proposed through the medium growth option, it is still of a scale which is likely to put pressure on land availability within existing urban and village boundaries, potentially resulting in amendments/ extensions to boundaries. As with the high growth option, it is currently not known whether the level of growth delivered through this option could be accommodated on previously developed land, so it may inevitably put pressure on greenfield sites outside of existing settlements.

Comparatively lower housing and employment growth through the low growth option is likely to reduce demand for new development sites, therefore increasing the opportunity to locate sites in areas which minimise impacts on the Vale's designated landscapes. As employment growth under the two scenarios in this option is low/ negative, a greater proportion of employment sites could potentially be accommodated in existing urban centres, with no requirement for sites outside of the settlement boundaries, where landscape constraints are likely to be more severe.

In conclusion, the low growth option is ranked highest under this ISA topic as it is most likely to preserve existing landscape/ townscape/ villagescape character across the local authority area. No significant effects are predicted under the low growth option. The remaining two options are ranked according to increasing growth quantum, with the high growth option ranked last. Whilst **uncertainty** is noted under the medium growth option, **significant long-term negative effects** are predicted under the high growth option as this option is most likely to negatively impact landscape/ townscape/ villagescape character across the Vale of Glamorgan.

Summary findings

ISA theme	Rank/ Significant effects	Option 1: Low growth 151 – 211 dpa	Option 2: Medium growth 316 – 527 dpa	Option 3: High growth 637 – 698 dpa
Economy and employment	Rank	3	2	1
	Significant effects?	Uncertain	Yes – Positive	Yes – Positive
Population and community	Rank	3	2	1
	Significant effects?	No	Yes – Positive	Yes – Positive
Health and wellbeing	Rank	No	Yes – Positive	Yes – Positive
	Significant effects?	3	2	1
Equality, diversity, and social inclusion	Rank	3	2	1
	Significant effects?	No	Yes – Positive	Yes – Positive
Climate change (mitigation and adaptation)	Rank	1	2	3
	Significant effects?	Yes – Positive	Uncertain	Uncertain
Transport and movement	Rank	1	2	3
	Significant effects?	Yes – Positive	Uncertain	Uncertain
Natural resources (air, soil, minerals, and water)	Rank	1	2	3
	Significant effects?	No	Uncertain	Yes – Negative
Biodiversity and geodiversity	Rank	1	2	3
	Significant effects?	Uncertain	Uncertain	Uncertain
Historic environment	Rank	2	1	3
	Significant effects?	Uncertain	Uncertain	Uncertain
Landscape	Rank	1	2	3
	Significant effects?	No	Uncertain	Yes – Negative

The following conclusions are drawn for each ISA theme:

Economy and employment	<p>The high growth option is ranked first, followed by the medium growth option and then the low growth option. The first two options are considered likely to lead to significant long-term positive effects as they will both likely deliver enough new jobs per year to support the growing population. Meanwhile, uncertainty is noted under the low growth option as growth is unlikely to be distributed evenly across the Vale, and one of the scenarios under this option (WG-2014) could even lead to a shrinking local economy. However, it is recognised that housing growth may stimulate the economy through an increase in the population, as well as the short-term employment opportunities associated with construction. Still, this is unlikely to be significant given the low housing growth projections for the scenarios under this option.</p>
Population and community	<p>It is considered that as the level of growth increases, so does the likelihood for significant positive effects in relation to this ISA topic. Therefore, the options are ranked according to the level of growth they deliver, with the high growth option ranked first, followed by the medium growth option and then the low growth option. The first two options are considered likely to lead to significant long-term positive effect as they support high/moderate population growth. No significant effects are anticipated for the low growth option as the level of growth delivered through this option is unlikely to deliver a good range of house types and tenures across the entire local authority area and could lead to affordability issues.</p>
Health and wellbeing	<p>The high and medium growth options are considered likely to lead to significant long-term positive effects as they deliver a high/moderate level of housing and employment growth, which will positively impact the health and wellbeing of new and existing residents through the benefits associated with growth. However, it is considered that the high growth option has the greatest potential to deliver such benefits, and therefore this option is ranked first. No significant effects are anticipated for the low growth option, as whilst the scenarios under this option deliver some housing growth, they deliver little (25 new jobs per year under the employment-led OE scenario) to no (-126 jobs per year under the WG-2014 scenario) employment growth.</p>
Equality, diversity, and social inclusion	<p>The high and medium growth options are considered likely to significant long-term positive effects as they deliver the highest/second highest level of growth and therefore have the greatest potential to lead to investment into opportunities across the Vale, whilst delivering a variety of housing types and tenures and increasing services across the local authority area. No significant effects are anticipated for the low growth option due to the mismatch between housing and employment growth under the scenarios in this option. In terms of ranking, the options are ranked according to the level of growth they deliver.</p>
Climate change (mitigation and adaptation)	<p>Ultimately, the nature and significance of the effects will be dependent on where development is located, as well as the infrastructure improvements that will accompany development. However, when considering the level of housing and employment growth alone, the low growth option is considered likely to lead to significant long-term positive effects because it provides the greatest opportunity to prioritise sites in sustainable locations with existing sustainable transport connections. Uncertainty is noted for the remaining two options as some development may need to be located in less sustainable locations, which would rely on the delivery of new</p>

	infrastructure, and the potential of these options to deliver this is not clear at this stage. The options are ranked from lowest to highest level of growth.
Transport and movement	Ultimately, the nature and significance of effects will be dependent on where development is located, as well as the infrastructure improvements that will accompany development. However, when considering the level of housing and employment growth alone, the low growth option is likely to lead to significant long-term positive effects because it provides the greatest opportunity to prioritise sites in sustainable locations with existing sustainable transport connections. Uncertainty is noted for the high and medium growth options because some development may need to be located in less sustainable locations, which would rely on the delivery of new infrastructure, and the potential of these options to deliver this is not clear at this stage. The options are ranked from lowest to highest level of growth.
Natural resources (air, soil, minerals, and water)	The low growth option is ranked first and considered most likely to avoid significant impacts arising. The medium growth option is ranked second, with uncertainty noted, whilst the high growth option is ranked last and considered most likely to lead to significant long-term negative effects due to the amount of land that will likely be required to deliver the level of growth required of this option.
Biodiversity and geodiversity	The low growth option is ranked first, followed by the medium and then high growth option. Uncertainty is noted across all three options as the location of growth is unknown at this stage, which will determine the impact of development on designated sites.
Historic environment	Uncertainty is noted under all three options as the precise location of development under each option is not known at this stage. In terms of rankings, the medium growth option is ranked highest as it delivers a moderate level of growth, limiting the potential of development to negatively impact heritage assets when compared to the high growth option. At the same time, it offers greater potential to boost the tourism and heritage sector when compared to the low growth option. The low growth option is ranked second, above the high growth option, as it is less likely to negatively impact the setting of heritage assets due to increased flexibility in choosing sites.
Landscape	The low growth option is ranked highest under this ISA topic as it is most likely to preserve existing landscape/ townscape/ villagescape character across the Vale. No significant effects are predicted under the low growth option. The remaining two options are ranked according to increasing growth quantum, with the high growth option ranked last. Whilst uncertainty is noted under the medium growth option, significant long-term negative effects are predicted under the high growth option as this option is most likely to negatively impact landscape/ townscape/ villagescape character across the Vale.

C.2 Spatial strategy options

11.5 Table C.1 identifies the four spatial strategy options.

Table C.1: Spatial strategy options

Option	Description
1. Continuation of the Adopted LDP Growth Strategy	Continue to promote new development primarily in the South East Zone (Barry, Penarth, Llandough, and Dinas Powys) and around the St Athan area, supported by development at primary settlements and minor rural settlements as appropriate.
2. Dispersed Growth	Distribute growth to every settlement proportionate to the size of the settlement.
3. Focused Growth	Deliver growth at the largest settlements in the district, according with the settlement hierarchy. Growth would be focused in the key settlement of Barry and the service centres (Cowbridge, Llantwit Major, and Penarth). The primary settlements would also accommodate an element of growth proportionate to their size. Growth would be restricted in minor rural settlements, hamlets, and smaller rural settlements.
4. Sustainable Transport Oriented Growth	Focus growth along the Vale of Glamorgan Line and Penarth branch line, and potentially deliver an additional station in St Athan. This would be supported by growth in other areas that have robust active travel and bus connectivity to services and transport nodes. Growth in other areas would be restricted to limited small-scale affordable led development to meet identified needs.

11.6 These options are assessed in relation to each of the ten ISA themes established through scoping and the detailed findings are presented overleaf.

ISA theme: Economy and employment

Options	Option 1: Continue the adopted LDP strategy	Option 2: Dispersed growth	Option 3: Focused growth	Option 4: Sustainable transport-oriented growth
Rank	2	3	4	1
Significant effect?	No	No	No	No

Future housing and employment growth in the Vale of Glamorgan is well placed to capitalise on existing economic connections (such as the Cardiff Airport and Bro Tathan Enterprise Zone) and future investment associated with the Cardiff Capital City Region, including infrastructure enhancements such as the South Wales Metro project. Connected development will also be a key driver for growth as part of the of the Southeast Wales Growth Area and a key consideration in accordance with Future Wales.

Options 1, 2, and 4 deliver the benefit of focusing more growth at St Athan, maximising opportunities for new investment linked to the Enterprise Zone and Cardiff Airport. The potential to deliver an additional rail station at St Athan (most likely under Option 4) would also improve economic connections with the potential to lead to positive effects. The options limit growth in smaller settlements, with the added benefit under Option 4 of only supporting growth at smaller settlements with robust active travel and bus connectivity to economic areas and transport nodes for affordable housing led schemes.

Option 2 would locate most development to the largest settlements, with Barry accommodating over 40% of the anticipated growth. The largest settlements are considered well connected (with sustainable transport options and existing economic areas), many of which lie east, connecting well with Cardiff. However, growth is apportioned to every settlement under this option, despite a lack of economic and transport connections at some of the smaller and more rural settlements.

Option 3 is likely to direct even higher levels growth to these larger settlements (as the option restricts supporting development within smaller settlements and rural areas). Whilst largely positive effects are inferred with this approach, based on good connectivity with existing employment and economic growth areas, and transport corridors, the potential for negative effects is also identified. With housing growth at this scale limited to certain areas, it is questionable whether large scale connected employment sites can be found alongside. Notably in Barry, this could exacerbate existing economic issues such as high levels of unemployment, low-income levels, and educational deprivation. Furthermore, restricting growth in the smaller settlements in the Vale may also limit their potential to grow sustainably and increase levels of self-containment (with supporting development such as new employment uses, especially those supporting SMEs, rural diversification, and local employment opportunities). Restricting housing growth in smaller settlements is also likely to restrict further infrastructure development in these areas, and these areas are usually those most in need of technological upgrades that support today's lifestyles and working patterns, including working from home, and local shared working spaces.

Options 1, 2, and 4 provide greater flexibility in this respect, by allowing a limited land supply from broader areas across the district that can alleviate pressures on main settlement areas and better ensure an appropriate supply of employment land alongside housing.

In relation to retail centres, it is expected that all options and the wider policy framework will support the main towns and service centres in adapting to changing consumer lifestyles, diversifying, and thriving in the long-term. By apportioning development more widely across the Vale, Options 1, 2, and 4 may also benefit smaller centres and village high streets with a larger local consumer base and employment pool and deliver wider development benefits that attract further inward investment in smaller or more rural areas.

ISA theme: Economy and employment

In conclusion, no significant effects are considered likely under any of the options, but Option 3 is notably less preferred overall due to the limitations placed on developing the rural economy (alongside rural housing growth), and a narrowed focus on the largest settlements, which may be at an opportunity cost of successfully integrating employment development alongside housing growth. Option 4 is preferred overall due the focus on connected development (including economic connections and potential new rail connections at St Athan) alongside appropriate consideration of rural development. Option 1 is considered likely to deliver similar benefits and is preferred to Option 2 as it considers appropriate rural development as opposed to assigning growth to every settlement despite their potential lack of economic and transport connections.

ISA theme: Population and communities

Options	Option 1: Continue the adopted LDP strategy	Option 2: Dispersed growth	Option 3: Focused growth	Option 4: Sustainable transport-oriented growth
Rank	2	3	3	1
Significant effect?	Yes - positive	Yes - positive	Yes - positive	Yes - positive

Development under any of the options ultimately seeks to distribute a housing land supply that will meet the forecasted future needs of residents in the Vale, and significant positive effects can be inferred in this respect. It is assumed that development under any of the options could also be supported with a policy framework that seeks to deliver a range of housing types, sizes, and tenures.

Under all options most growth is likely to be directed to the largest towns in the Vale, as the most connected areas. However, under Options 2 and 3, significantly higher levels of growth would be apportioned to Barry and Penarth, as well as Cowbridge and Llantwit Major under Option 3. This will inevitably expand the settlement areas. In Penarth, given the administrative boundary and the coast, expansion of the settlement could reduce the gap between Penarth and the surrounding settlements (particularly Dinas Powys and Llandough), and contribute to coalescence in this respect. Consideration would need to be given to how such growth levels could be accommodated without impacting the identified Green Wedges that retain open land between these settlement areas and protect settlement identities.

In this respect, dispersing land supply more equitably across the Vale could reduce the pressures on settlement identities in larger settlements. Whilst Option 2 would assign growth to every settlement, this approach is based on existing residential population size rather than considered settlement constraints and opportunities. It therefore has the potential to affect community identities to a far greater scale than the comparable options. Option 1 provides the greatest opportunity for a more equitable distribution approach, by considering appropriate development in more rural areas (i.e., factoring in constraints to development and ensuring an appropriate scale that minimises impacts to settlement identities).

Positive effects are associated with directing most growth to the largest settlements though, particularly in the context of an ageing population, where residents are likely to rely more greatly on local connectivity. Focusing most growth in the most accessible areas could ensure future residents can access a wide range of day-to-day needs locally, limiting the need to travel. Option 4 performs notably well in this respect with an approach to only develop connected areas (except for small-scale affordable housing schemes) and the potential to deliver a new rail station at St Athan. With this consideration in mind, Option 2 could notably result in minor negative effects, with growth apportioned to all settlements (including small rural settlements) notwithstanding their connectivity or accessibility.

Alternatively, by directing development to all settlement areas, the growth strategy under Option 2 has good potential to ensure an element of affordable housing delivery more widely across the Vale, thus supporting more communities with access to much needed affordable housing options. Notably this is more restricted under Option 3, however, it is recognised that the highest concentrations of affordable housing needs are in the Barry, Penarth, and Llandough housing market areas (i.e., the larger settlements).

In conclusion, distributing the housing supply under all options is likely to support significant positive effects in the long-term. Option 4 performs notably better than the other options by means of its potential to deliver accessibility benefits, ensuring all new homes are well connected. Option 1 also provides the benefits of a considered and more equitable housing distribution across the Vale and is thus ranked next. Options 2 and 3 are ranked least favourably given the constraints identified under each option (potential effects on settlement identities under Option 2 and restricting rural development under Option 3).

ISA theme: Health and wellbeing

Options	Option 1: Continue the adopted LDP strategy	Option 2: Dispersed growth	Option 3: Focused growth	Option 4: Sustainable transport-oriented growth
Rank	2	2	3	1
Significant effect?	No	No	No	No

With the general health of Vale of Glamorgan residents being reported as good, it is anticipated that growth under any option is likely to support continued trends in this respect. With access to healthcare facilities being one key determinant in planning for healthy lifestyles, it is noted that the borough contains a large provision of healthcare facilities, predominantly concentrated around the main centres of Barry, Cowbridge, Penarth, and Llantwit Major. A focus for development within these larger towns (likely under all options) will therefore deliver new housing supported by good access to healthcare provisions, along with a potential to enhance and extend these provisions.

Access to high-quality leisure facilities and recreational spaces also play a key role in determining healthy lifestyles. In this respect the Vale has many favourable assets that contribute to high-quality recreational experiences. Including the two large Country Parks in Eastern Vale, the coastline, and common land and green spaces (particularly in Western Vale). Despite this, it is recognised that within some urban areas, open space can be fragmented, lacking connectivity. In this respect, it is recognised that the focus of development at existing urban areas (under all options) can play a vital role in increasing connectivity and enhancing the function of local green spaces. Option 2 notably encompasses more rural settlement areas in the growth strategy, which can extend the potential for such local opportunities. Of note, the Council's Play Sufficiency Assessment highlights that in rural areas some children and young people experience difficulties accessing play opportunities due to their limited ability to travel to their desired locations, and that many children in both rural and urban settlements considered the condition of play equipment to be poor. Limiting growth in certain areas, particularly the rural areas (under Option 3) is therefore highly unlikely to contribute to addressing these highlighted issues. Option 2 stands out in this respect, by ensuring some development is directed to every settlement within the Vale.

A further consideration in relation to planning for good health is ultimately the potential for development to connect with and/ or enhance/ extend active travel networks and promote healthy lifestyles in this respect. Again, the Vale has an existing favourable active travel network connecting areas with the main settlements. Option 4 performs notably well in this respect, by ensuring all development is well connected to sustainable transport options. Option 2 imposes more rural growth, which could result in less sustainable transport connections, but also opportunities to improve local active travel networks in certain areas.

Considering the above, whilst no significant effects are considered likely, it is recognised that Option 4 would support more residents across the borough with sustainable transport options including active travel options and green infrastructure networks. Options 1 and 2 are also considered to perform marginally better than Option 3 given these options provide greater potential for rural development benefits.

ISA theme: Equality, diversity, and social inclusion

Options	Option 1: Continue the adopted LDP strategy	Option 2: Dispersed growth	Option 3: Focused growth	Option 4: Sustainable transport-oriented growth
Rank	1	1	2	1
Significant effect?	No	No	No	No

There is a noticeable disparity in deprivation levels across the Vale, with the Vale containing some of the most affluent and the most deprived communities in Wales. Of particular concern are three of the most deprived areas in Wales are located within or surrounding Barry. All options are likely to direct a substantial proportion of growth to Barry as the largest town in the Vale of Glamorgan, and development should seek to support ways to reduce inequality across Barry. The delivery of high-quality housing, including affordable housing will ultimately support residents in relation to the access to housing and services deprivation domain. However, wider development benefits should be sought to address disparities that extend beyond the housing market, such as in educational attainment, access to employment opportunities, high-quality living environments, and access to green space.

In the more rural areas of the Vale, higher deprivation is often identified in relation to the access to housing and services domain. In this respect, by restricting development within rural areas, Option 3 is less likely to support positive effects by reducing deprivation in these areas, whilst Options 1, 2, and 4 have greater potential to address these issues. This consideration is reflected in the ranking of the options.

It is recognised that any option could be supported by a policy framework which seeks high-quality and inclusive design and successful integration with existing communities, as well as conservation of the Welsh language. Focusing on wider measures to improve accessibility, including access to education and employment will also support residents, including protected groups, with opportunities to diversify and grow.

In conclusion no significant effects are considered likely at this stage, and positive effects are likely to be realised when the supporting policy framework emerges. Whilst few differences are drawn between the options, Options 1, 2, and 4 are considered to rank better than Option 3, given that they support an element of rural inclusivity.

ISA theme: Climate change (mitigation and adaptation)

Options	Option 1: Continue the adopted LDP strategy	Option 2: Dispersed growth	Option 3: Focused growth	Option 4: Sustainable transport-oriented growth
Rank	2	3	2	1
Significant effect?	No	No	No	Yes - positive

With regards to climate change mitigation, it is recognised that development under any of the options could be supported with a policy framework that seeks high levels of efficiency in design. The supporting policy framework can also identify and action wider measures that increase resilience, such as robust ecological and green infrastructure networks, accessibility improvements and widespread active travel networks, and renewable energy developments.

Potential opportunities to improve sustainability performance are recognised under all options but are particularly apparent under Option 4, which promotes a sustainable transport-oriented approach and could include an additional rail station at St Athan to significantly improve accessibility. Significant positive effects are thus considered likely in relation to climate mitigation.

It is recognised that all options are likely to result in significant cumulative loss of agricultural land (due to the settlement expansion strategy under all options) which contributes to below ground carbon storage.

A key consideration which relates to spatial distribution, is the accessibility of development, for which the benefits of Option 4 have already been identified. However, in relation to the remaining options, Options 1 and 3 are considered to perform marginally better in relation to rural development than Option 2, given greater consideration is given under these options to individual settlement constraints and opportunities or growth is restricted in these less connected areas.

Given the potential to deliver significant positive effects in relation to climate mitigation, Option 4 is preferred overall. For the reasons outlined above, Options 1 and 3 are ranked better than Option 2.

In relation to climate change adaptation, it is recognised that all options will be directed by the need for sequential and exception testing, which should ultimately ensure that vulnerable development within the floodplain is avoided, and no significant effects are considered likely in this respect. It is also recognised that the supporting policy framework for any of the options could ensure that suitable drainage strategies are included in development proposals, which minimise all forms of flood risk and seek betterment in terms of flood risk and/ or water quality.

ISA theme: Transport and movement

Options	Option 1: Continue the adopted LDP strategy	Option 2: Dispersed growth	Option 3: Focused growth	Option 4: Sustainable transport-oriented growth
Rank	2	4	3	1
Significant effect?	Uncertain	Uncertain	Uncertain	Yes - positive

Throughout the Vale it is recognised that road infrastructure has historically struggled to keep pace with increases in the number of road vehicles, leading to congestion and capacity issues. It is anticipated under any option, that these issues will be exacerbated to some degree by future growth, recognising that all options are seeking to distribute the same overall level of growth. Strategic measures are being pursued through wider planning influences, such as the Local Transport Plan and emerging Regional Transport Plan, as well as projects such as the South Wales Metro, which will also help address the baseline issues.

Transport modelling would ultimately be required to fully understand the potential impacts of each of the options and there remains an element of uncertainty in its absence at this stage, however, some general assumptions can be made.

One potential way to expedite infrastructure upgrades is through strategic scale development opportunities that deliver strategic benefits, and it is recognised that such opportunities are far more likely to be realised through Options 1, 3 and 4 which seek to deliver the required growth across far fewer settlement areas. However, on the other hand, smaller settlements could also benefit from development that delivers improvements to local connectivity, reduced on-street parking, and measures to alleviate congestion at key areas. Such opportunities are far less likely to be realised under Option 3 which is more restrictive on growth outside the largest settlements.

Option 2 would apportion growth to every settlement, and whilst this may unlock opportunities at some settlements, it may also exacerbate existing constraints at some settlements too, with no consideration of individual settlement opportunities and constraints. The option is ranked least favourably on this basis.

Option 4 ultimately stands out by focusing growth along sustainable transport corridors, including smaller settlements that are well connected by active travel and bus services. This option is ranked most favourably overall given its alignment with sustainable transport and movement objectives and the potential delivery of a new rail station at St Athan. Further of note is the strategic South Wales Metro project which will provide opportunities to better connect certain areas of the Vale, these opportunities may extend the main towns, and it is recognised that Option 4 provides good potential to assess opportunities to better connect some of the smaller settlements with the wider infrastructure upgrades that are underway. Considering these points, there is recognised potential for significant positive effects under this option.

No significant effects are considered likely under the remaining options and as outlined above; Option 2 is ranked least favourably. Option 1 is considered to perform better than Option 3 as the approach considers settlement constraints and opportunities more widely across the Vale, which may help unlock more minor positive effects at smaller settlements, as discussed above.

ISA theme: Natural resources (air, soil, minerals, and water)

Options	Option 1: Continue the adopted LDP strategy	Option 2: Dispersed growth	Option 3: Focused growth	Option 4: Sustainable transport-oriented growth
Rank	1	3	2	1
Significant effect?	Yes - negative	Yes - negative	Yes - negative	Yes - negative

In relation to air quality, there are no Air Quality Management Areas (AQMA) declared within the borough which growth could impact upon. Despite this, it is recognised that emissions are higher within Barry and the Eastern Vale, and these are deemed the most problematic areas in relation to air quality. It is likely that all options will direct most growth towards Barry and Penarth in Eastern Vale as the largest towns. This is likely to increase pressures in terms of road traffic at key congestion areas, which will in turn lead to further decreases in air quality. Despite this, with strategic growth anticipated within these areas under all options, it is considered that there is sufficient opportunity at this stage to deliver mitigation that would contribute to reducing impacts. Development in these areas will also connect well with wider projects which seek to increase accessibility such as the South Wales Metro project. In this respect, no significant effects are anticipated in relation to air quality at this stage, under any of the options. Most notably, Option 4 seeks to ensure connected development that reduces reliance on the private vehicle, and all options seek to deliver a new train station at St Athan, again reducing reliance on the private vehicle. Both options have good potential to increase sustainability performance in certain areas. Alternatively, the distribution of development more widely under Option 2 could impact rural road networks and local congestion and air quality issues.

With regards to soils, in particular high-quality soils such as productive agricultural land, it is recognised that all options would focus on settlement expansion to achieve the required growth (with limited brownfield resources). As a result, the cumulative loss of greenfield and likely high-quality agricultural land (factoring in that around 85% of land within the Vale is agricultural land, much of which is Grade 2 or 3) is considered likely to lead to negative effects of significance. By encompassing more rural areas, Option 2 may perform marginally worse in relation to agricultural land loss. This is given rural areas tend to include more high-quality land in active use.

Whilst it is recognised that the Vale is an important contributor to the regional supply of minerals, and contains several active mineral extraction sites, it is considered likely that the focus on settlement expansion will limit effects in relation to mineral resources. This approach (under all options) is likely to avoid the unnecessary sterilisation of resources, or hinder future access, with limited operations in proximity to existing urban areas. Whilst significant impacts are considered likely to be avoided in this respect, it is recognised that Option 2 could be considered to perform marginally less favourably given it includes more rural development.

All options seek to deliver the same level of growth, which will ultimately be the main planning aspect of relevance to catchment level water resource management planning. Effects arising from the distribution of growth predominantly relate to potential effects for water quality. Noting that water quality within the Vale is generally good (including bathing waters), and that there are a wide range of potential measures that can be employed in development proposals to maintain or enhance water quality, no significant effects are considered likely at this stage, though this will ultimately be better informed when the precise location of development is known.

Furthermore, it is also recognised that all options could be supported by a policy framework that prioritises a holistic and sustainable approach to the management, protection, and use of natural resources, as well as measures to improve resource use efficiency.

Overall, whilst no significant negative effects are anticipated in relation to air, mineral resources, or water resources, there is an identified potential for negative effects of significance in relation to soil resources for all options. Limiting rural development under Options 1, 3, and 4 make these options perform marginally better than Option 2, and Options 1 and 4 provide notable benefits by means of connected development providing alternatives to the private car making them rank better overall.

ISA theme: Biodiversity and geodiversity

Options	Option 1: Continue the adopted LDP strategy	Option 2: Dispersed growth	Option 3: Focused growth	Option 4: Sustainable transport-oriented growth
Rank	1	2	1	1
Significant effect?	Uncertain	Uncertain	Uncertain	Uncertain

There are a vast number of designated sites for biodiversity in and around the Vale, the most significant of which are designated as internationally important. The effects of the spatial strategy in relation to internationally designated sites will ultimately be assessed in detail through the supporting Habitat Regulations Assessment. At this stage it is recognised that both the level and distribution of growth have the potential for negative effects of significance for biodiversity, the precise nature and extent of which will be informed by the precise location of development. It is also recognised that mitigation measures are available to reduce the significance of many of the likely impacts, though these will need to be tailored and agreed with statutory consultees and stakeholders.

Of risk, is the approach proposed under Option 2 which imposes development upon all settlements prior to detailed consideration of constraints and capacity. Options 1, 3, and 4 benefit from more focused strategic scale development, that (through economies of scale) are more likely to deliver strategic mitigation (including the likes of Suitable Alternative Natural Green Spaces).

In relation to the widespread habitats across the borough which are not designated, it is recognised that Option 2 is most likely to lead to impacts across a greater extent of the borough (by allocating growth at every settlement). However, biodiversity net gains as a development benefit are also anticipated under all options, and these benefits would similarly be more widespread under Option 2.

Considering the above, whilst the potential for negative effects of significance is recognised under all options, there is much uncertainty in the absence of precise locations and growth levels at individual settlements. Options 1, 3, and 4 are marginally preferred to Option 2 as they provide greater potential for strategic benefits (associated with economies of scale) and limit the extent of effects across the Vale.

ISA theme: Historic environment

Options	Option 1: Continue the adopted LDP strategy	Option 2: Dispersed growth	Option 3: Focused growth	Option 4: Sustainable transport-oriented growth
Rank	1	3	2	2
Significant effect?	Uncertain	Uncertain	Uncertain	Uncertain

With a wealth of heritage assets and heritage settings abundant across the Vale, all growth strategies (i.e., all options) are recognised for potential negative effects of significance, which will be better informed by consideration of precise development locations (with overall uncertainty noted at this stage). With a focus on brownfield development (where available) and settlement expansion, all options will target areas which contain listed buildings, conservation areas, scheduled monuments, and historic parks, and may encroach upon historic landscapes.

Option 2 is notably most likely to lead to impacts across a greater extent of the Vale, by allocating development within every settlement area proportionate to its size. Whilst Option 3 (and to a lesser extent Option 4) would limit the extent of development across the Vale by focusing it in the main settlement areas (potentially positive), the increased scale of development in main settlements, because of its narrowed focus, could ultimately lead to greater impacts in relation to the significance of designated heritage assets and their settings in those settlements. Option 1 is considered to perform marginally better in this respect, by way of wider distribution and consideration of each settlement's capacity for growth. These considerations are reflected in the ranking of the options.

It is assumed that development under any option could be supported by a policy framework which seeks sensitive design and appropriate archaeological investigation prior to development.

ISA theme: Landscape

Options	Option 1: Continue the adopted LDP strategy	Option 2: Dispersed growth	Option 3: Focused growth	Option 4: Sustainable transport-oriented growth
Rank	1	2	2	2
Significant effect?	Yes - negative	Yes - negative	Yes - negative	Yes - negative

It is recognised that the Vale has a high-quality, varied landscape, much of which is designated or recognised nationally for its special qualities and character, including heritage and coastal influences. With a focus on settlement expansion (with limited brownfield opportunities) under all options, it is considered likely that future growth will place pressures upon sensitive landscapes and key characteristics, predominantly from increased urbanisation. The potential for significant negative effects is ultimately recognised at this stage under all options (pre-mitigation), though this will be better informed by consideration of precise development locations.

Option 2 is notably most likely to lead to impacts across a greater extent of the Vale, by allocating development within every settlement area proportionate to its size. Whilst Option 3 (and to a lesser extent Option 4) would limit the extent of development across the borough by focusing it in the main settlement areas (potentially positive), the increased scale of development in main settlements, because of its narrowed focus, could ultimately lead to greater impacts in relation to landscape character and encroachment upon the countryside. Option 1 is considered to perform marginally better in this respect, by way of wider distribution with greater consideration of each settlement's capacity for growth, including landscape capacity for change. These considerations are reflected in the ranking of the options.

Summary findings

ISA theme	Rank/ Significant effects	Option 1: Continue the adopted LDP strategy	Option 2: Dispersed growth	Option 3: Focused growth	Option 4: Sustainable transport-oriented growth
Economy and employment	Rank	2	3	4	1
	Significant effects?	No	No	No	No
Population and community	Rank	2	3	3	1
	Significant effects?	Yes - positive	Yes - positive	Yes - positive	Yes - positive
Health and wellbeing	Rank	2	2	3	1
	Significant effects?	No	No	No	No
Equality, diversity, and social inclusion	Rank	1	1	2	1
	Significant effects?	No	No	No	No
Climate change (mitigation and adaptation)	Rank	2	3	2	1
	Significant effects?	No	No	No	Yes - positive
Transport and movement	Rank	2	4	3	1
	Significant effects?	Uncertain	Uncertain	Uncertain	Yes - positive
Natural resources (air, soil, minerals, and water)	Rank	1	3	2	1
	Significant effects?	Yes - negative	Yes - negative	Yes - negative	Yes - negative
Biodiversity and geodiversity	Rank	1	2	1	1
	Significant effects?	Uncertain	Uncertain	Uncertain	Uncertain
Historic environment	Rank	1	3	2	2
	Significant effects?	Uncertain	Uncertain	Uncertain	Uncertain
Landscape	Rank	1	2	2	2
	Significant effects?	Yes - negative	Yes - negative	Yes - negative	Yes - negative

Overall, Option 4 performs notably well against most of the ISA objectives, reflecting the sustainability merits of connected development. The following conclusions are drawn in relation to each theme.

ISA theme	Conclusions
Economy and employment	No significant effects are considered likely under any of the options, but Option 3 is notably less preferred overall due to the limitations placed on developing the rural economy (alongside rural housing growth), and a narrowed focus on the largest settlements, which may be at an opportunity cost of successfully integrating employment development alongside housing growth. Option 4 is preferred overall due to the focus on connected development (including economic connections and potential new rail connections at St Athan, which although not exclusive to this option, are more likely to be delivered under it), alongside appropriate consideration of rural development. Option 1 is considered likely to deliver similar benefits and is preferred to Option 2 as it considers appropriate rural development as opposed to assigning growth to every settlement despite their potential lack of economic and transport connections.
Population and community	Distributing the housing supply under all options is likely to support significant positive effects in the long-term. Option 4 performs notably better than the other options by means of its potential to deliver accessibility benefits, including a new rail station at St Athan (which although not exclusive to this option, are more likely to be delivered under it), ensuring all new homes are well connected. Option 1 also provides the benefits of a considered and more equitable housing distribution across the borough and is thus ranked next. Options 2 and 3 are ranked least favourably given the constraints identified under each option (potential effects on settlement identities under Option 2 and restricting rural development under Option 3).
Health and wellbeing	Whilst no significant effects are considered likely, it is recognised that Option 4 would support more residents across the borough with sustainable transport options including active travel options and green infrastructure networks. Options 1 and 2 are also considered to perform marginally better than Option 3 given these options provide greater potential for rural development benefits.
Equality, diversity, and social inclusion	No significant effects are considered likely at this stage, and positive effects are likely to be realised when the supporting policy framework emerges. Whilst few differences are drawn between the options, Options 1, 2, and 4 are considered to rank better than Option 3, given that they support an element of rural inclusivity.
Climate change (mitigation and adaptation)	Given the potential to deliver significant positive effects in relation to climate mitigation (i.e., focusing development in locations well served by sustainable transport), Option 4 is preferred overall. In relation to climate change adaptation, it is recognised that all options will be directed by the need for sequential and exception testing, which should ultimately ensure that vulnerable development within the floodplain is avoided, and no significant effects are considered likely in this respect. It is also recognised that the supporting policy framework for any of the options could ensure that suitable drainage strategies are included in development proposals, which minimise all forms of flood risk and seek betterment in terms of flood risk and/ or water quality.
Transport and movement	Option 4 ultimately stands out by focusing growth along sustainable transport corridors, including smaller settlements that are well connected by active travel and bus services. This option is ranked most favourably overall given its alignment with

ISA theme**Conclusions**

	sustainable transport and movement objectives and the potential delivery of a new rail station at St Athan. No significant effects are considered likely under the remaining options and Option 2 is ranked least favourably given it directs development to less connected areas. Option 1 is considered to perform better than Option 3 as the approach considers settlement constraints and opportunities more widely across the Vale, which may help unlock more minor positive effects at smaller settlements.
Natural resources (air, soil, minerals, and water)	Whilst no significant negative effects are anticipated in relation to air, mineral resources, or water resources, there is an identified potential for negative effects of significance in relation to soil resources for all options. Limiting rural development under Options 1, 3, and 4 make these options perform marginally better than Option 2, and Options 1 and 4 provide notable benefits by means of connected development providing alternatives to the private car making them rank better overall.
Biodiversity and geodiversity	Whilst the potential for negative effects of significance is recognised under all options, there is uncertainty in the absence of precise locations and growth levels at individual settlements. Options 1, 3, and 4 are marginally preferred to Option 2 as they provide greater potential for strategic benefits (associated with economies of scale) and limit the extent of effects across the borough.
Historic environment	With a wealth of heritage assets and heritage settings abundant across the borough, all growth strategies (i.e., all options) are recognised for potential negative effects of significance, which will be better informed by consideration of precise development locations (with overall uncertainty noted at this stage). Option 2 is notably most likely to lead to impacts across a greater extent of the borough, by allocating development within every settlement area proportionate to its size. Whilst Option 3 (and to a lesser extent Option 4) would limit the extent of development across the borough by focusing it in the main settlement areas (potentially positive), the increased scale of development in main settlements, because of its narrowed focus, could ultimately lead to greater impacts in relation to the significance of designated heritage assets and their settings in these settlements. Option 1 is considered to perform marginally better in this respect, by way of wider distribution and consideration of each settlement's capacity for growth.
Landscape	With a focus on settlement expansion (with limited brownfield opportunities) under all options, it is considered likely that future growth will place pressures upon sensitive landscapes and key characteristics, predominantly from increased urbanisation. The potential for significant negative effects is ultimately recognised at this stage under all options (pre-mitigation), though this will be better informed by consideration of precise development locations. Option 2 is notably most likely to lead to impacts across a greater extent of the borough, by allocating development within every settlement area proportionate to its size. Whilst Option 3 (and to a lesser extent Option 4) would limit the extent of development across the borough by focusing it in the main settlement areas (potentially positive), the increased scale of development in main settlements, because of its narrowed focus, could ultimately lead to greater impacts in relation to landscape character and encroachment upon the countryside. Option 1 is considered to perform marginally better in this respect, by way of wider distribution with greater consideration of each settlement's capacity for growth, including landscape capacity for change.

