

## Submission of Evidence Form – National Development Framework

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Title of evidence

**Biodiversity of the south Wales valleys**

Summary of evidence

The valleys are of particular importance for Biodiversity in a Wales-wide context because of

- The extent of semi natural habitat (fig 1 and 2)
- The diversity of semi natural habitat types (fig 3)
- The co-incidence of semi-natural habitat extent and diversity (fig 4)
- The habitat connectivity provided at a landscape scale (eg fig 5)
- The emerging evidence of the importance of coal and mineral spoil for biodiversity (ref 3)

Evidence is also submitted with regard to

- the positive role of planning in protecting and enhancing biodiversity, promoting ecosystems resilience whilst enabling development in appropriate locations (ref 1) and
- the integration of all the well-being goals in the consideration of regeneration (ref 4)

Summary of key issues/conclusions

Planning has a key role in integrating biodiversity conservation and enhancement with regeneration.

Why have you submitted this evidence?

Land-use Planning has a very important role in the protection and enhancement of biodiversity across Wales, in particular, in areas of high development pressure. National, Strategic, Local and Place Plans must have regard to biodiversity both in the protection of important sites and in the conservation, mitigation and enhancement of biodiversity through the development management process. NPTCBC have produced the Biodiversity in Planning document to guide developers (**Ref 1**).

In the past, the industrial valleys of south Wales were often considered to be of little biodiversity value and did not receive the survey and research effort afforded to other areas of Wales, in particular the National Parks and coast. Since the advent of the Biodiversity Action Planning process (arising from international commitments), a more systematic approach to biodiversity conservation has been applied in Wales. As a result, the Wales Biodiversity Partnership, together with Local Biodiversity Action Plan Partnerships (and their successor organisations) has developed an evidence base to support targeted action for priority habitats and species. The evidence presented here suggests that, in a Wales wide context, the Valleys are of particular importance for biodiversity conservation (**fig 2-4**).

A unique combination of factors is responsible for the wealth of Valleys biodiversity. The interaction of local climate, varied geology and topography, low intensity agriculture and a rich industrial history are all key contributors. The resulting landscape has relatively dense linear settlements on the valley floor and lower slopes, extensive pastoral agriculture, and in the uplands common land and forestry (much of which is 'open access'), with the 'ffridd' or 'coed cae' on the steeper valley sides. In addition to the extent of semi-natural habitat and the diversity of natural habitat types, this landscape provides important connectivity. Connectivity provides benefits to species which require more than one habitat, or large areas of habitat in order to complete their life cycle. Connectivity also allows species to adjust to external pressures such as climate change (**Ref 2**).

One illustrative example of the importance of this connectivity relates to a particular habitat and a dependant species: rhos pasture and the marsh fritillary butterfly. Rhos pasture is a feature of the northern and southern edges of the coalfield, roughly following the lines of the M4 and Heads of the Valleys Road Corridors. In areas of high development pressure, protecting a network of these marshy grasslands sufficient to support the rare and endangered marsh fritillary butterfly is challenging. The butterfly depends upon a habitat at a landscape scale and connectivity between sites is of critical importance for the long-term survival of this weak flying insect. **Figure 5** shows the 'priority' habitat identified by the Wales Grassland group which includes core rhos pasture areas.

Recent detailed local survey work has highlighted the diversity and importance of an iconic coalfield habitat with regard to pollinators. An apprentice, based at the National Museum of Wales and initially funded by The Esmee Fairbairn Foundation, has undertaken a survey of invertebrates on 5 colliery spoil sites in south Wales. To date, 85 different bee species have been identified. Half of these species are of conservation concern (localised, nationally scarce and Wales s7 species). The evidence suggests that colliery spoil is an important wildlife habitat and also appears to be providing an alternative to habitats that are declining in the wider countryside. The key features are the free draining substrate, thin nutrient poor soils and a huge variation in topography, aspect, substrate, hydrology, pH and levels of disturbance which create a great diversity of micro-habitats (**ref 3**).

How should this evidence inform the development of the NDF?

The Valleys is an area of Wales where regeneration is a key priority. Biodiversity is one of the assets of the area and there is now extensive evidence to support this. It is important that both attributes are recognised in the National Planning Framework. Policies to promote regeneration should be integrated with biodiversity not traded one against the other. The letter from the Future Generations Commissioner regarding the City Deal (**ref 4**) illustrates the need for new approaches. The landscape and its wildlife have been identified as an important asset for the future.

How does this evidence and any actions it recommends help achieve the 7 well-being goals?

The recent legislative changes in Wales have re-emphasised the importance of biodiversity for ecosystem services, environmental resilience and integrated natural resource management. The Well-being of Future Generations Act includes an environmental resilience goal and the Environment Act includes an enhanced Biodiversity Duty for all public bodies (s6): **“to seek to maintain and enhance biodiversity in the exercise of functions in relation to Wales, and in so doing, promote the resilience of ecosystems so far as consistent with the proper exercise of those functions”**. Planning has a strong track record of addressing issues such as health, prosperity, community, equality, culture, language and environment in an integrated way. The Commissioner’s City Deal letter (**ref 4**) provides some pointers for the future.

Why is the evidence of national significance?

Biodiversity across Wales is an important consideration for the National Development Framework. In areas of high development pressure and in areas where regeneration is a key concern, the protection and enhancement of biodiversity should be integrated with development proposals and should pay due regard to the value of extensive, diverse and connected habitats for environmental resilience.

Do you agree for your evidence to be made public? (Only evidence that can be made public will inform the development of the NDF)

Yes

Fig 1	Table1.4 Summary of the Habitat extent for 22 priority habitats within Welsh Local Biodiversity Action Plan areas, p8 in ‘Priority Habitats of Wales : a technical guide’. Editors: PS Jones, DP Stevens, TH Blackstock, CR Burrows, EA Howe (CCW/WAG/Biodiversity Wales 2003) <a href="#">copy attached</a>
Fig 2	The relative proportion of semi-natural habitat in Wales on a 1km square basis (Fig 2, p8 of ref 1 below) <a href="#">copy attached</a>
Fig 3	Diversity (Shannon Index) of semi-natural habitats on a 1km square basis for Wales (Fig 3, p9 of ref 1 below) <a href="#">copy attached</a>

Fig 4	Areas where high semi-natural habitat diversity and abundance co-incide (Fig 4, p10 of Ref 1 below) <a href="#">copy attached</a>
Fig 5	<a href="http://www.biodiversitywales.org.uk/Ecosystems-Species-Expert-Groups">http://www.biodiversitywales.org.uk/Ecosystems-Species-Expert-Groups</a> Priority habitat: South Wales Valleys Marshy Grasslands <a href="#">copy attached</a>
Ref 1	<a href="https://www.npt.gov.uk/pdf/Biodiversity_in_planning_ENG.pdf">https://www.npt.gov.uk/pdf/Biodiversity_in_planning_ENG.pdf</a> Biodiversity in Planning – a guide for developers <a href="#">copy attached</a>
Ref 2	Ecological Connectivity in Wales: planning action to help terrestrial biodiversity respond to habitat fragmentation and climate change' J Latham, TH Blackstock and EA Howe published by CCW 2007, staff science report no 08/7/1
Ref 3	<a href="https://collieryspoilbiodiversity.wordpress.com/">https://collieryspoilbiodiversity.wordpress.com/</a>
Ref 4	A Better Deal for Future Generations - setting the challenge for the Cardiff Capital Region City Deal <a href="#">copy attached</a>

## Figure 1

**Table 1.4.** Summary table of habitat extent for 22 priority habitats within Welsh Local Biodiversity Action Plan areas. Lowland wood-pasture and parkland, cereal field margins, ancient and/or species-rich hedgerows and the three freshwater priority habitats are excluded because of the lack of comparable extent data. The woodland component of the total figure is based on the extent of semi-natural broadleaved woodland because of the lack of comparable data for the five priority woodland types within the component LBAP areas of Glamorgan and Gwent. Data for coastal and floodplain grazing marsh only relate to the grassland component of this priority type. '0' denotes habitat presence where area data are unavailable.

Wetland IBA Area	Upland oak-wood	Upland oak-wood	Wet woodland	Lowland birch & alder wetland	Lowland mixed woodland	Lowland meadows	Lowland calcareous grassland	Lowland dry acid grassland	Purple moor-grass patches	Inland heathland	Revetbed	Fens	Cowslip & birdfoot trefoil grazing marsh	Upland heathland	Blanket bog	Upland calcareous grassland	Exclosure permanent	Mixtures of deciduous & conifer	Cauldron pools & sloughs	Saltmarsh	Total	EMAP priority habitat area	% tree cover of adjacent habitats			
Anglesey	70	250	240	0	240	86	410	3800	3000	100	520	0	2900	0	0	0	1	570	6	1400	300	9600	74,568	13		
Snowdonia NP	6500	560	1000	0	160	0.3	11,000	3800	3000	23	1400	94	4300	26,900	17,600	56	0	6	0	800	550	271,000	213,191	36		
Gwynedd	1110	290	860	0	180	0	4800	3400	1400	35	610	0	3800	2200	480	0	0	810	58	510	350	21,000	90,997	23		
Conwy	720	1300	100	0	130	6	240	2500	590	28	300	0	2000	1700	1900	0	3	29	16	24	150	10,900	72,222	15		
Dorsetshire	300	1700	220	0	300	21	1100	72	410	0.5	71	0	3500	5500	1300	23	6	0	2	52	35	14,900	81,880	17		
Flintshire	340	920	140	0	210	22	200	300	50	163	4	32	0	2500	230	0	0	0.8	0	49	710	6100	48,788	12		
Wrexham	230	430	160	0	170	38	22	540	73	62	0	41	420	2400	2200	970	0	0	0	0	8100	49,680	16			
Powys	10,000	2300	1700	0	2500	16,700	160	21	5600	3600	810	4	280	53	9380	13,300	7	0	0	0	31	68,800	428,281	16		
Ceredigion	3700	1000	460	0	400	5700	150	0	2800	4200	820	23	1200	1120	4700	8100	0	0	330	6	120	360	33,300	180,587	19	
Cardiganshire	6300	1600	940	0	2600	11,700	170	3	1800	6600	400	66	340	49	3500	2500	0	0	50	0	1200	34,400	222,836	15		
Pembrokeshire	1000	1300	520	0	1800	6600	510	17	710	3200	1200	73	300	13	1000	2500	91	0	P	1400	4	560	260	18,300	161,458	11
Penrith Seacotes NP	2800	640	1200	290	700	5900	95	120	2300	2400	410	7	130	16	660	11,800	5300	42	0	0	0	29,700	134,518	22		
Snowdonia	-	-	-	-	1600	27	82	500	1300	900	61	290	0	540	580	42	0	230	4	480	1300	8000	41,984	19		
Nantlle Port Talbot	-	-	-	-	2100	72	0	2000	1300	250	12	210	0	680	650	49	0	0	0.4	0	190	200	7800	45,031	17	
Bridgend	-	-	-	-	810	28	32	370	660	160	4	25	0	200	510	53	0	<0.1	9	0.5	850	14	3700	25,444	15	
Rhondda-Gynon Taff	-	-	-	-	1700	44	0.2	1400	1500	480	0.8	130	9	130	980	850	0	0	0	0	0	7200	37,021	20		
Aberthaw Tydfil	-	-	-	-	510	10	28	500	260	160	0	25	0	0	450	0.2	30	1	0	0	0	2000	8647	23		
Vale of Glamorgan	-	-	-	-	1200	47	120	68	120	45	4	19	19	930	0	0	0	0	0	0	0	2000	8647	23		
Cardiff	-	-	-	-	800	4	1	6	46	0.4	0.5	5	0	520	2	0	0	69	13	3	22	2700	33,876	8		
Caerphilly	-	-	-	-	1600	11	9	850	500	180	2	32	1.6	160	1000	30	0.7	0	0	0	0	4100	14,905	9		
Blanaau Gwent	-	-	-	-	299	0.7	4	820	160	160	0	42	0	0	1400	160	11	0	0	0	0	0	4100	27,676	16	
Todcan	-	-	-	-	620	10	1	410	110	120	0	12	0	26	970	110	0	0	0	0	0	3000	10,509	29		
Monmouthshire	-	-	-	-	4300	120	12	75	79	17	0.3	34	0	2700	0	0	0	44	0	0	98	7500	23,456	10		
Newport	-	-	-	-	510	6	2	31	45	0.2	8	37	0	4200	0	0	0	29	0	0	130	5000	21,272	23		
Glamorgan (IE IBA)	3300	3100	1300	690	1600	9800	240	260	5400	5500	2100	84	730	30	3200	3600	1000	30	310	17	15000	35,200	224,552	16		
Gwent (IE IBA)	640	2100	320	1500	1600	6400	140	24	1700	490	340	8	130	0	6900	2800	270	12	72	0	130	19,400	138,256	15		
Wales total	39,000	47,000	9000	4000	12,000	82,600	1700	1200	39,500	35,200	12,500	460	6200	1830	54,600	79,800	56,200	650	54	3100	110	6200	800	367,200	2,115,259	18

**Figure 2**

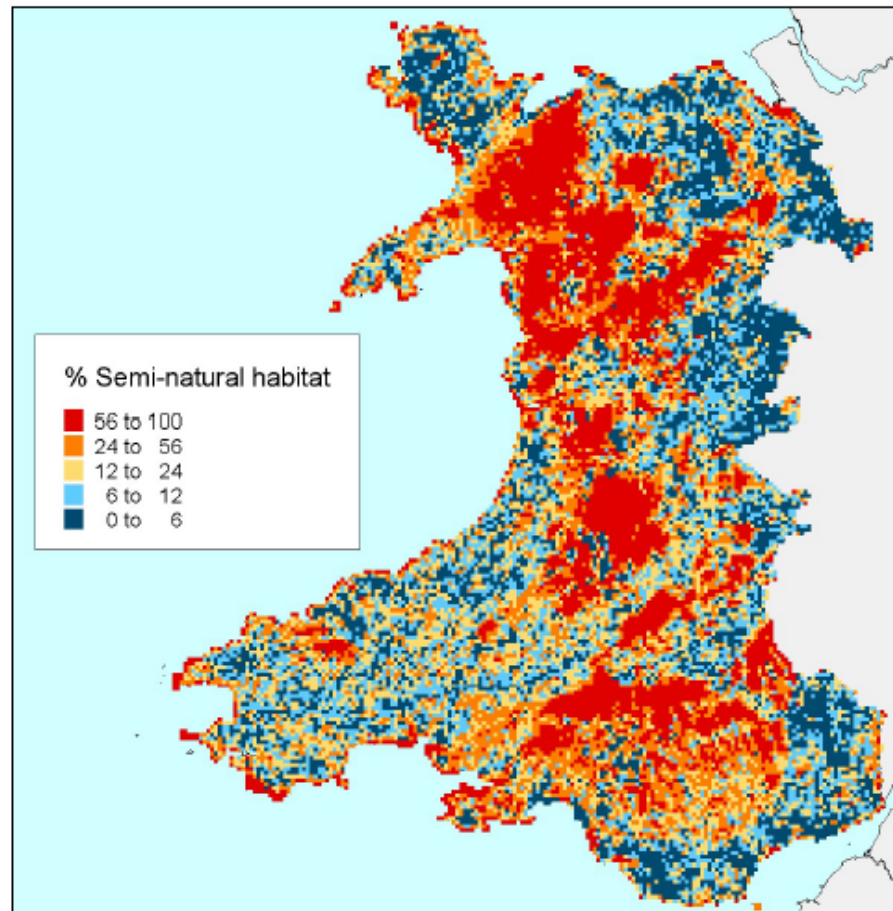


Figure 2. The relative proportion of semi-natural habitat in Wales on a 1km square basis.

Areas with high cover of semi-natural habitat are likely to have relatively high ecological connectivity. However, this is affected by habitat condition, which often may be poor. Also, areas of high semi-natural cover may be dominated by a few habitat types, therefore providing potential connectivity for a restricted range of biodiversity.

Areas with a high diversity of semi-natural habitat have potential for broader ecological connectivity (Figure 3). The pattern of semi-natural habitat diversity is similar to that of abundance, but concentrations of high diversity show up around the coast, the upland fringes (ffridd), and regions such as the south Wales valleys. Overall connectivity is likely to be particularly good where high values of semi-natural abundance and diversity coincide.

Figure 4 shows areas where high values of semi-natural abundance and diversity coincide. The uplands are still prominent, but the coastal and ffridd zones are emphasised. These are areas of high connectivity for a wide spectrum of biodiversity.

**Figure 3**

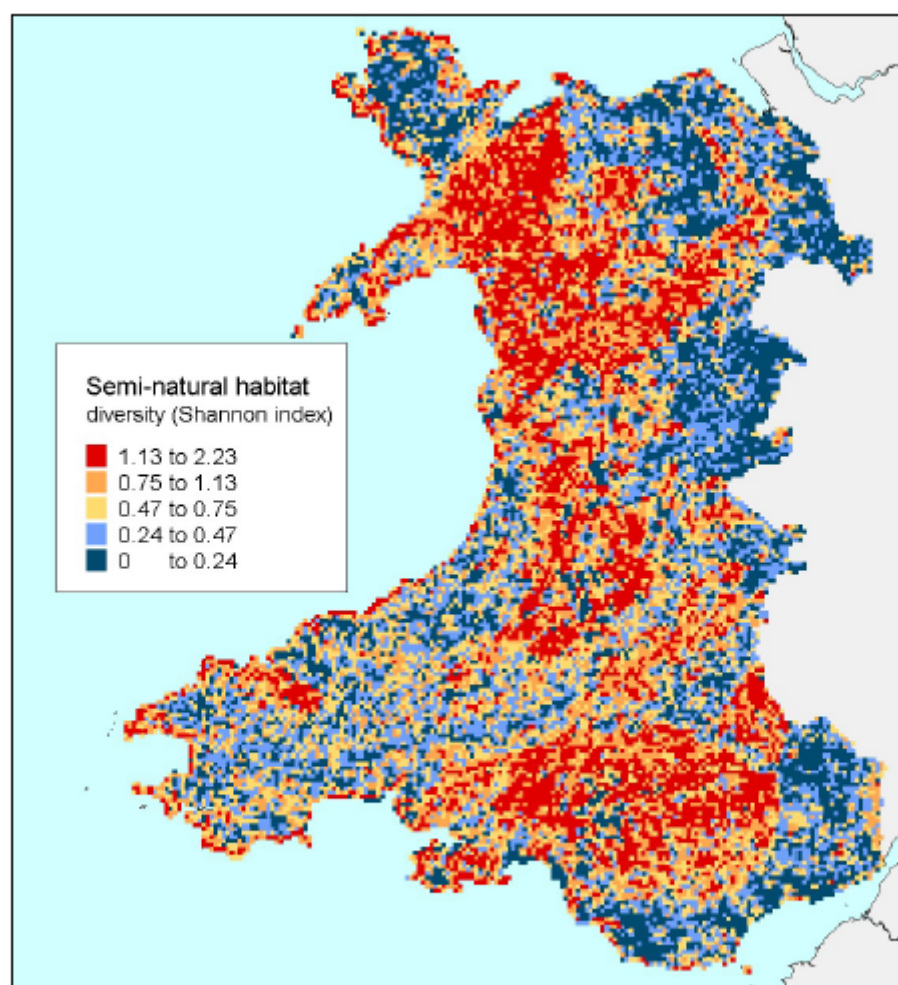


Figure 3. Diversity (Shannon index) of semi-natural habitats on a 1km square basis for Wales.



**Figure 4**

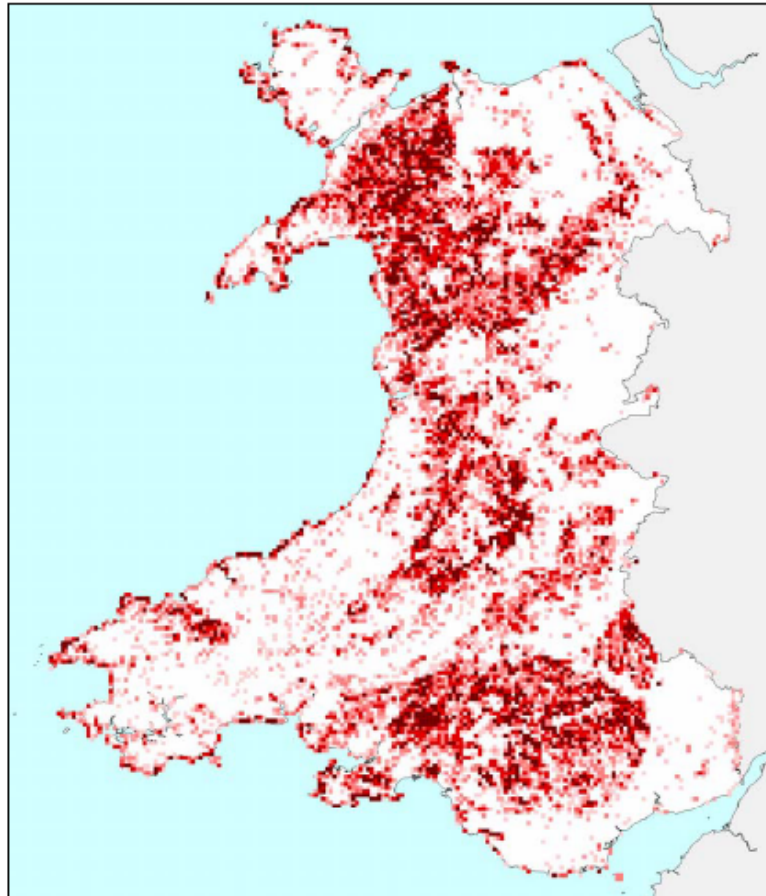


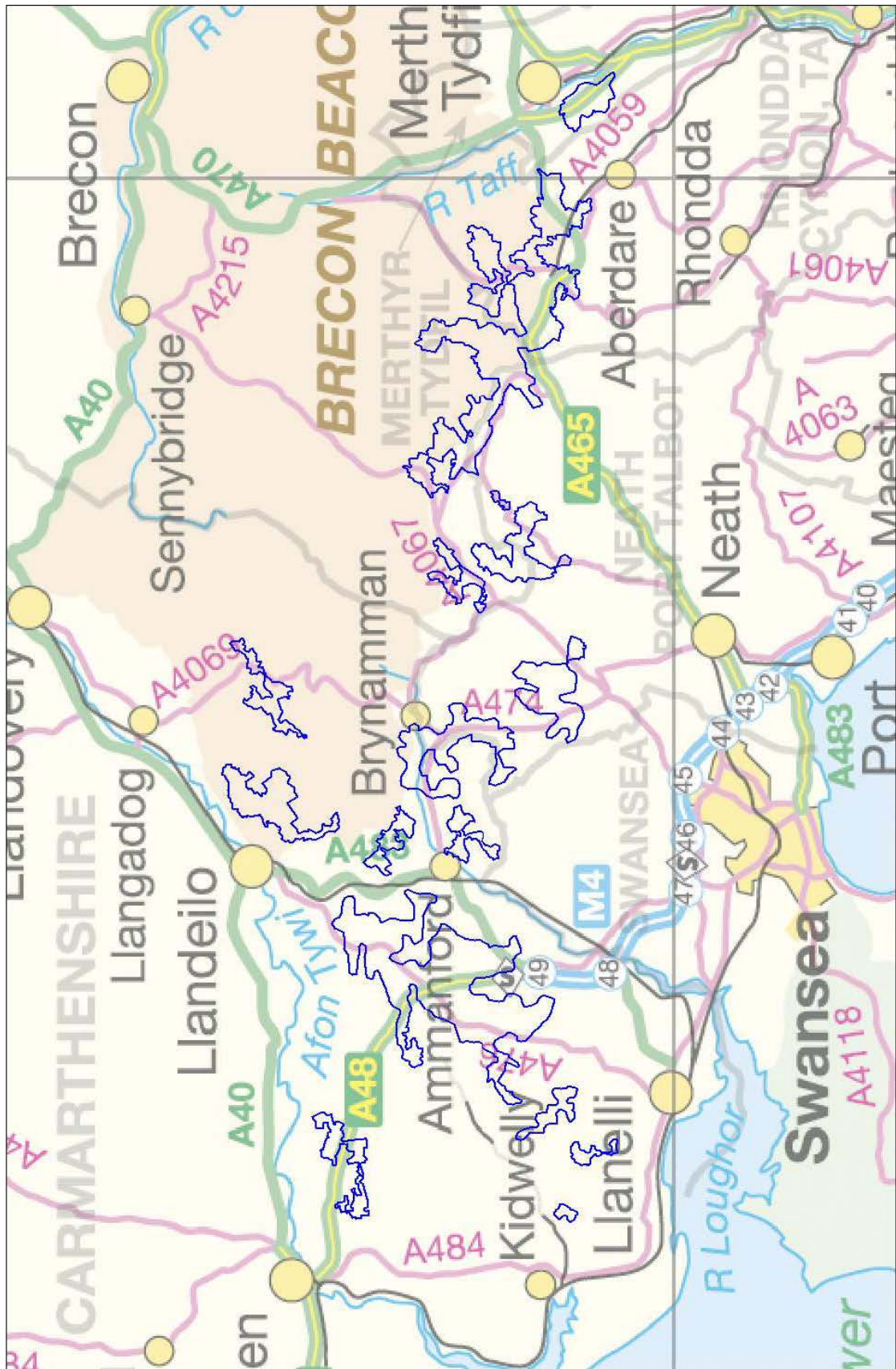
Figure 4. Areas where high semi-natural habitat diversity and abundance coincide. These are potentially important areas of ecological connectivity for a wide spectrum of biodiversity. Values increase with intensity of colour, where the darkest represents 1 km-squares with greater than 40% semi-natural habitat cover and a diversity index of greater than 1.5; white areas are those with less than 15% semi-natural habitat cover and diversity index less than 0.8. These values have been selected to emphasise regional variations. The relationships between abundance and diversity are complex and under further investigation.

### 3.4 Habitat network models

CCW, in collaboration with Forestry Commission Wales and Forest Research, has developed maps of habitat networks. Instead of considering physically linked habitats as networks, the approach has been to consider *functional networks* that comprise patches of habitat that are able to interact by virtue of other intervening habitats through which many species can move (i.e., the permeability of the intervening landscape). For example, two woodland blocks may be considered to be part of a functional woodland network if they are separated by (say) a strip of unimproved



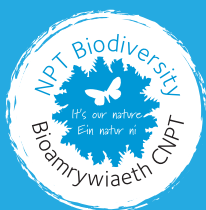
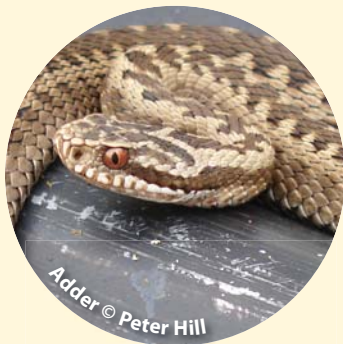
Figure 5





# Biodiversity in Planning

*A Basic Guide for Developers*



# CONTENTS

<b>1.</b>	<b>An Introduction to Biodiversity and the Planning System .....</b>	<b>1</b>
1.1	What is Biodiversity and why is it relevant? .....	1
1.2	The Role of the Planning System .....	1
1.3	Planning Policy .....	1
1.3.1	National planning policy .....	1
1.3.2	Local planning policy .....	2
1.4	Supplementary Planning Guidance .....	2
<b>2.</b>	<b>How do I answer the 1app biodiversity question? .....</b>	<b>3</b>
2.1	Frequently Asked Questions .....	3
2.2	What do the biodiversity questions mean? .....	3
2.2.1	Question 14. a): .....	3
2.2.3	Question 14. b): .....	3
2.3	How do I know if there are any biodiversity issues on my site? .....	4
2.4	What next? .....	4
2.5	Filling in the Form .....	4
2.5.1	Question 14. a) Protected and Priority Species .....	4
2.5.2	Question 14. b) Designated Sites, important habitats and other biodiversity features .....	5
2.5.3	Other .....	5
2.6	Recommendation .....	5
<b>3.</b>	<b>Basic Biodiversity Survey Requirements .....</b>	<b>6</b>
3.1	Types of Surveys .....	6
3.2	Survey Timings .....	8
3.3	How to find an ecological consultant or licensed worker .....	9
3.4	EIA Developments .....	9
<b>4.</b>	<b>Biodiversity Mitigation and Compensation .....</b>	<b>10</b>
4.1	Retain Existing Habitats and Species In-situ .....	10
4.1.1	Buffers .....	11
4.1.2	Connectivity .....	11
4.2	Relocate Habitats and Species .....	11
4.2.1	Habitats .....	11
4.2.2	Species .....	11
4.3	Create New Habitats or Enhance Existing .....	13
4.3.1	Creation .....	13
4.3.2	Management and enhancement .....	13
4.4	Restoration .....	14
4.5	Development Design .....	15
4.5.1	Roofs and Walls .....	15
4.5.2	Sustainable Urban Drainage .....	15
4.5.3	Landscaping .....	15
4.5.4	Homes for Wildlife .....	16
4.6	Compensation (Off-site Projects) .....	17
4.7	Timing .....	17
4.8	Monitoring .....	18
4.9	Protected Species Mitigation .....	18
4.10	Protected Site Mitigation .....	19
<b>5.</b>	<b>Further Information and References .....</b>	<b>20</b>
<b>6.</b>	<b>Contacts .....</b>	<b>21</b>





# 1. AN INTRODUCTION TO BIODIVERSITY AND THE PLANNING SYSTEM

## 1.1 What is Biodiversity and why is it relevant?

A useful definition of biodiversity is given by the UK Steering Group Report on Biodiversity, 1995: "Biodiversity (shortened from biological diversity) is all living things, from the tiny garden ant to the giant redwood tree. You will find biodiversity everywhere, in window boxes and wild woods, roadsides and rainforests, snowfields and sea shores"

As human beings we ourselves are an element of, and reliant on, the biodiversity of the planet. Plants and animals provide us with food, plants provide oxygen for us to breathe and many recreational and tourist attractions rely upon the enjoyment of our native biodiversity. It is therefore essential that we try to understand and protect our biodiversity.

The planning system is an important means by which, in relation to land use, we can attend to the biodiversity needs of the County Borough and beyond, because of the opportunities and threats posed by development. This is fully supported by planning policy and legislative requirements.

It is therefore important to address such issues as part of planning applications submitted to the Planning Authority, as failure to do so may result in an application being refused or delayed.



## 1.2 The Role of the Planning System

In managing development, the planning system is a key mechanism to control and reduce pressure on biodiversity, both by reducing negative impacts and securing benefits.

The planning process operates in parallel to biodiversity legislation, with both planning and legislation helping to deliver government commitments.



The importance of the legislation and commitments is reflected in the importance afforded to biodiversity in national and local planning policy.

Planning policy requires the consideration of a variety of biodiversity issues. However, in some cases it will be necessary to balance the impacts on biodiversity with the other potential benefits and negative impacts of the proposal.

## 1.3 Planning Policy

### 1.3.1 National planning policy

National planning policy emphasises the importance of integrating nature conservation or biodiversity into all planning decisions at an early stage, whilst looking for development to deliver social, environmental and economic objectives together over time (Planning Policy Wales<sup>1</sup> (PPW) 5.1.3-4, 5.5.1-2). There is reference to the desirability of:

- Ensuring that the UK's international obligations for site, species and habitat protection are fully met in all planning decisions (PPW 5.5.1, 5.3.8-10)
- Looking for development to realise opportunities to enhance biodiversity, to

avoid significant loss of habitats or species populations, locally or nationally, and where damage is unavoidable, to compensate for it (PPW 5.1-2, 5.5.2 also TAN 5, 5.7.3, 5.3.4)

- Forging and strengthening links between the town and country planning system and biodiversity action planning given that the planning system can help implement biodiversity action plans (PPW 5.4.2, 5.2)

Technical Advice Note 5 (TAN5): Nature Conservation (2009)<sup>2</sup> reinforces the importance of biodiversity in the planning system. It suggests that developments should contribute towards nature conservation and places great emphasis on enhancement of biodiversity rather than just protection. The TAN provides guidance on dealing with biodiversity issues in developments and planning and sets out requirements for surveys and mitigation proposals needing to be provided upfront with application submission, as these issues are material in determining applications.

### 1.3.2 Local planning policy

Cascading down from national policy, the Neath Port Talbot Unitary Development Plan<sup>3</sup> (and the upcoming Local

Development Plan) has policies that refer to a presumption against adverse effects to statutorily-designated sites of nature conservation interest and states that proposals may be refused where they would lead to unacceptable damage or destruction to significant local habitats and species. In addition, policies also detail the expectation that all new development should attend to biodiversity interests and avoid unacceptable impacts through:

- the retention and conservation of important features and habitats;
- taking full account of the importance of the site in relation to adjacent biodiversity interests; avoiding loss to Local Biodiversity Action Plan<sup>4</sup> priority species and habitats or where this is unavoidable, providing replacements; and
- taking full account of opportunities to restore and enhance habitats and ecosystems.

Overall, these policies stress that the biodiversity resource to be enhanced and conserved goes beyond designated areas and that conservation involves preservation, protection, sustainable management and restoration. Given the extensive protection afforded by these policies, it is clear that information about, and consideration of, biodiversity interests will be a necessary part of most planning applications. There is also a preference for such considerations to be designed-in to the development in order to aim for a net gain for biodiversity.

## 1.4 Supplementary Planning Guidance

The supplementary planning guidance for biodiversity<sup>5</sup> provides further details and information on how biodiversity should be considered within the planning system. In addition it sets out a number of case studies on how biodiversity interests can be accommodated within certain types of development.



## 2. HOW DO I ANSWER THE 1APP BIODIVERSITY QUESTION?

### 2.1 Frequently Asked Questions

**Q. If I tick yes to either of the biodiversity questions (a) and (b) will that mean that I won't be granted planning permission.**

**A.** No. The questions are to ensure that the planning authority can consider all the appropriate issues of your planning application, in this case biodiversity.

**Q. What is biodiversity?**

**A.** Biodiversity is all living things, the plants and animals that we share our planet with and the places they live.

**Q. Why do I need to consider biodiversity?**

**A.** Many plants and animals are actually protected by law, therefore you need to be sure that any works on your site (within or outside the planning system) do not impact upon them; otherwise you could commit a criminal offence and face fines or imprisonment. Also, retaining, enhancing and creating areas for biodiversity within developments create a pleasant environment and may help you sell your development or even get support for it.

So, now you know what biodiversity is, that it won't necessarily mean that your planning permission will be refused and why you need to consider it but how do you answer the biodiversity questions on the 1app form?

### 2.2 What do the biodiversity questions mean?

#### 2.2.1 Question 14. a):

#### 14. Biodiversity and Geological Conservation

*Is there a reasonable likelihood of the following being affected adversely or conserved and enhanced within the application site, or on land adjacent to or near the application site?*

- ☐ Yes, on the development site
- ☐ Yes, on land adjacent to or near the proposed development
- ☐ No

This question is asking you whether you are going to impact upon the biodiversity of your site and surrounding areas – be it adversely or in a positive manner. Protected species are those protected under law. There are a number of species protected under national and European law, such as bats and otters. If you have any of these on your site you may need to obtain a development licence to disturb them from the Welsh Government. Priority species are those species listed in the UK<sup>6</sup> and Neath Port Talbot Biodiversity Action Plans<sup>4</sup> (UK and NPT BAP) that have been prioritised for conservation action often due to their decline in numbers or threatened status.

*b) Designated sites, important habitats or other biodiversity features:*

- ☐ Yes, on the development site
- ☐ Yes, on land adjacent to or near the proposed development
- ☐ No

This question asks whether your development will impact upon sites that have been designated for nature conservation purposes like Sites of Special Scientific Interest and Nature Reserves. In addition, it asks about important habitats – the areas that plants and animals live such as woodlands and grasslands. The important habitats are those listed in the UK<sup>6</sup> and NPT BAPs<sup>4</sup> and the reference to other features consider wildlife corridors and stepping stones that allow wildlife to move through an area, especially urban areas.



## 2.3 How do I know if there are any biodiversity issues on my site?

- Q.** How do I know if I have any biodiversity on my site?
- A.** The best way to find out whether you have any biodiversity issues is to undertake surveys of your site and for this you will need to employ an ecological consultant to investigate this for you. Information on how to find an ecologist is provided in 'Ecological Survey Advice including how to choose an ecological consultant' by the Association of Local Government Ecologists/ NPTCBC<sup>7</sup>.
- Q.** But this could cost so how do I establish whether I need to do any survey work?
- A.** Before you submit your application seek pre-application advice from the local planning department. They may well be able to tell you whether you need to do any survey work. Or, you can refer to the Biodiversity Supplementary Planning Guidance<sup>5</sup> for further information and the associated documents including the Glamorgan Biodiversity Advisory Group's Think Wildlife!<sup>8</sup> This will give you an idea of the sorts of issues you may encounter on your site. Thirdly you can contact the Council's Biodiversity Unit directly to get advice.

## 2.4 What next?

If you need to undertake survey work for your site it must be done at the correct time of year. For example, you can't survey for animals whilst they are hibernating over winter. So, as a general rule of thumb the best times to survey most habitats and species is over the spring and summer months. Surveys undertaken at inappropriate times will not be accepted and you may incur additional costs if they have to be re-done. If your survey does show that there are biodiversity issues on the site then a mitigation scheme will be needed to show how you are going to deal with the issues whilst aiming to ensure that there is no net loss of biodiversity due to your development. Your ecological consultant will be able to help you with this.

You can easily find out if your site is close to a designated site by either contacting the planning dept or the Countryside Council for Wales.

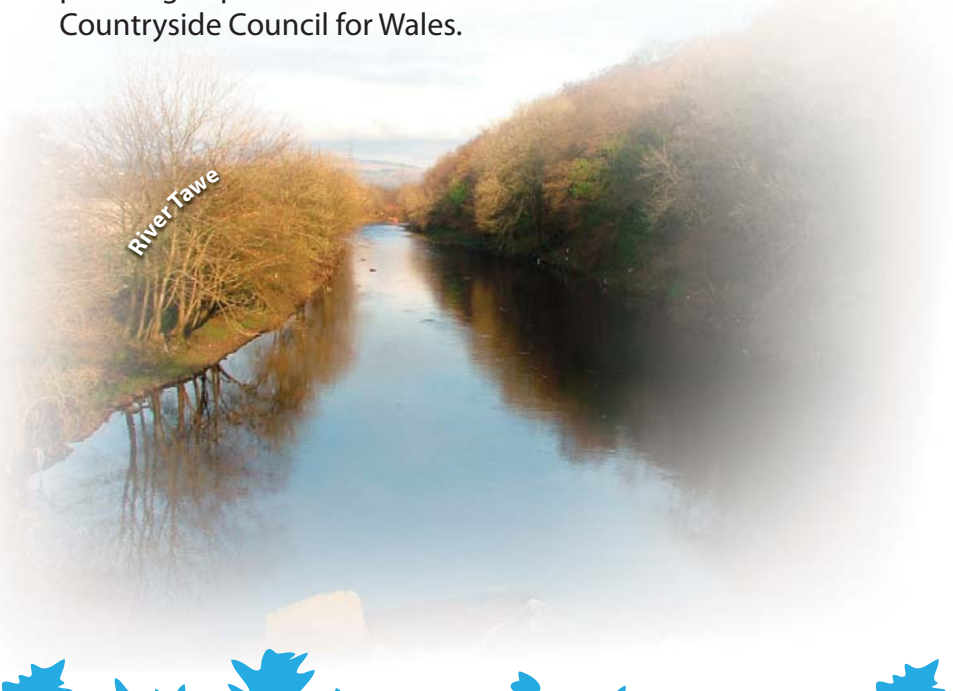
If your site is on or close to a designated site (or could be impacted by your development e.g. through air pollution) it is likely that survey and mitigation proposals will be needed to prove that your development would not adversely affect such a site.

However, it is recommended that pre-application advice from the planning department be sought as early as possible if a designated site could be impacted by the development.

## 2.5 Filling in the Form

### 2.5.1 Question 14.

- a) *Protected and Priority Species*
- **No** - Only tick 'no' if you are sure that there are no protected or priority species on the site or you have been advised that such species would not be expected by the planning department. Some sort of reasoning for this answer would be of benefit as part of your submission.



- Yes (on site) – tick ‘yes’ if pre-application advice or guidance suggests that it is likely that protected or priority species may be present on the site, or you have already done surveys that have positively identified such species. A survey and mitigation report will need to be submitted.
- Yes (adjacent to site) - tick ‘yes’ if pre-application advice or guidance suggests that it is likely that protected or priority species may be present close to your site, or survey work has identified such species. A survey and mitigation report will need to be submitted.

#### 2.5.2 Question 14. b)

#### **Designated Sites, important habitats and other biodiversity features**

- No – only tick ‘no’ if your pre-application advice has suggested that there are no designated sites in the area (or within impact distance) or that there are no habitats or features of interest on the site or if additional guidance or surveys have confirmed this. Some sort of reasoning for this answer would be of benefit as part of your submission.
- Yes (on site) – tick ‘yes’ if pre-application advice, guidance or survey work suggests that it is likely that a designated site or important habitats or features may be present on the site. A survey and mitigation report will need to be submitted.
- Yes (adjacent to site) - tick ‘yes’ if pre-application advice, guidance or survey work suggests that it is likely that a designated site may be impacted by the development or that important habitats or features may be present close to your site. A survey and mitigation report will need to be submitted.

#### 2.5.3 Other

Trees and Hedges

Are there trees or hedges on the proposed development site?
Yes ☐
No ☐

And/or: Are there trees or hedges on land adjacent to the proposed development site that could influence the development or might be important as part of the local landscape character?
Yes ☐
No ☐

If Yes to either or both of the above, you will need to provide a full Tree Survey, with accompanying plan before your application can be determined. Your Local Planning Authority should make clear on its website what the survey should contain, in accordance with the current ‘BS5837: Trees in relation to construction - Recommendations’.

Although not included in the biodiversity section, the trees and hedges question is still relevant to biodiversity as these features are likely to support wildlife; plus hedges are actually an important habitat. So, if you answer yes to these questions you must answer yes to at least the second biodiversity question.

#### 2.6 Recommendation

Don’t Panic! Just seek advice if you aren’t sure about the biodiversity question. Please do not tick ‘no’ if you are unsure, this will only delay matters. The planning authority has a duty to consider biodiversity conservation and therefore will check with the Biodiversity Unit on such issues even if you tick ‘no’. If it is felt that there are biodiversity issues, surveys will then subsequently be requested delaying your application determination. So, make sure you think about biodiversity before filling in the form and seek advice.



### 3. BASIC BIODIVERSITY SURVEY REQUIREMENTS

Requirements for surveys will be application and site specific so this is not a comprehensive list. It would be recommended that all applicants seek pre-application advice to ensure that they undertake surveys appropriate to their development. This will not only ensure that the required information is provided for the planning department to determine the planning application but will save expense on surveys/work that is not necessary for the application.

#### 3.1 Types of Surveys

The following can be used as a basic guide as to what sorts of surveys will be required for different types of development:

Type of Development	Survey Requirements
<ul style="list-style-type: none"><li>● Conversion -Buildings and structures e.g. barns, outbuildings, houses, churches, chapels and schools.</li><li>● Demolition -Of part or whole buildings and structures.</li><li>● Extensions -Particularly those that may key into the roof.</li><li>● Roofing work- e.g. loft conversion, dormer windows or remedial timber treatment.</li></ul>	<ul style="list-style-type: none"><li>● Bat Survey (by licensed bat worker).*</li><li>● Barn Owl Survey (may require licensed ornithologist).*</li><li>● Nesting Birds (general) Survey.</li></ul>
<ul style="list-style-type: none"><li>● Caves, Mines, Adits and Tunnels -Any development nearby or likely to cause disturbance.</li><li>● Quarries - Any developments affecting a quarry or where a quarry might be affected by disturbance including new quarries or extensions to existing ones.</li></ul> <p><i>Note: Where quarries include ponds or buildings, also refer to those sections below.</i></p>	<ul style="list-style-type: none"><li>● Bat Survey (by licensed bat worker). *</li><li>● Peregrine Falcon Survey (may require licensed ornithologist) mainly quarries only.</li><li>● Nesting Birds (general) Survey.*</li><li>● Habitat Survey, mapping using phase 1 habitat survey and indicating Biodiversity Action Plan habitats.*</li></ul>



Type of Development	Survey Requirements
<ul style="list-style-type: none"> <li>● Hedgerows and scrub -Any development requiring removal of hedgerows and/or scrub.</li> <li>● Trees and Woodland - Any development affecting trees or woodlands.</li> </ul>	<ul style="list-style-type: none"> <li>● Dormouse Survey (licensed worker required). Rare in NPT so check whether this is necessary.</li> <li>● Bat Survey (by licensed bat worker).*</li> <li>● Badger Survey.*</li> <li>● Survey for Schedule 1 birds such as Goshawk, Red Kite and Honey Buzzard (may require licensed ornithologist).</li> <li>● Nesting Birds (general) Survey.</li> <li>● Habitat Survey, mapping using phase 1 habitat survey and indicating Biodiversity Action Plan habitats.*</li> </ul>
<ul style="list-style-type: none"> <li>● Ponds, standing water and canals, including artificial water bodies, and the surrounding land - Any development affecting ponds or other bodies of standing water and the surrounding land (&lt;500m).</li> <li>● Rivers, streams and ditches -Any development affecting watercourses, either directly or indirectly.</li> <li>● Wetlands including bogs, fen, marsh and swamps - Any development affecting wetlands, either directly or indirectly.</li> </ul>	<ul style="list-style-type: none"> <li>● Great Crested Newts Survey (by licensed worker). Rare in NPT so check whether this is necessary.</li> <li>● Otter Survey.*</li> <li>● Reptiles Survey.*</li> <li>● Water Voles Survey. Rare in NPT so check whether this is necessary.</li> <li>● Marsh Fritillary Butterfly Survey.</li> <li>● Fen Raft Spider Survey. Rare species and limited in range so check whether this is necessary.</li> <li>● Survey for Schedule 1 birds such as Cetti's Warbler or Kingfisher (may require licensed ornithologist).</li> <li>● Habitat Survey, mapping using phase 1 habitat survey and indicating Biodiversity Action Plan habitats.*</li> </ul>
<ul style="list-style-type: none"> <li>● Grassland -Including calcareous, neutral, marshy and acid grassland.</li> <li>● Heathland</li> <li>● Arable</li> <li>● Coastal -Including dunes, estuaries and salt marsh.</li> </ul>	<ul style="list-style-type: none"> <li>● Otter Survey (coastal or where wetland or watercourse features present).</li> <li>● Shore Dock and Fen Orchid Survey. Rare in NPT so check whether necessary.</li> <li>● Schedule 8 Plants survey, such as Deptford Pink. Rare species and limited in range so check whether this is necessary.</li> </ul>



Type of Development	Survey Requirements
	<ul style="list-style-type: none"> <li>● Badger Survey.*</li> <li>● Marsh and High Brown Fritillary Butterfly Survey (marshy grasslands).*</li> <li>● Survey for Schedule 1 birds such as Ringed plover.*</li> <li>● Nesting birds (general) survey, including Lapwing.*</li> <li>● Reptile Survey.*</li> <li>● Habitat Survey, mapping using phase 1 habitat survey and indicating Biodiversity Action Plan habitats.*</li> </ul>
<ul style="list-style-type: none"> <li>● Wind Turbines</li> </ul>	<ul style="list-style-type: none"> <li>● Vantage Point Bird Surveys - especially for raptor species (may require specialist ornithologist).*</li> <li>● Breeding birds (general) survey. *</li> <li>● Wintering and migration/passage bird surveys.*</li> <li>● Bat Survey (by licensed bat worker). *</li> <li>● Habitat Survey, mapping using phase 1 habitat survey and indicating Biodiversity Action Plan habitats.* This will inform the requirement for other specific surveys.</li> </ul>

\* = surveys most commonly required.



### 3.2 Survey Timings

Some surveys can only be undertaken at certain times of the year so can have implications for timetabling planning determination and development commencement. The following can be used as a general guide:

Survey for:	Type	J	F	M	A	M	J	J	A	S	O	D	D
Birds	Breeding			/	/	/	/	/					
Reptiles	Wintering	/	/								/	/	/
Great Crested Newts	Presence				/	/	/	/	/				
Badgers, Water Vole,	Presence			/	/	/	/	/					
Otter, Dormice	Presence	/	/	/	/	/	/	/	/	/	/	/	/
Bats	Roosts					/	/	/	/	/			
Marsh Fritillary Butterfly	Hibernating	/	/	/	/							/	/
Fen Raft Spider	Presence						/			/	/		
Plants	Presence						/	/	/				
High Brown Fritillary	Presence					/	/	/	/				
Butterfly	Presence							/					
Habitat Survey	Presence					/	/	/	/	/			

/ = optimal period for survey

Please note that if a survey is undertaken outside of the optimal period it may be rejected and required to be re-done during the correct season. In addition, if applications are submitted without relevant surveys and in a season where surveys are not able to be undertaken the application will be unable to be determined.

#### Surveys should include:

- Historical survey/species records for site.
- A summary of the status of the habitats and important species present.
- The importance of the site locally and on a wider scale.
- Identification of any areas within the site that are used by important species, and when they are used.

- The impact that the proposed development will have.
- Proposals for mitigation, as appropriate.

#### 3.3 How to find an ecological consultant or licensed worker

All ecological surveys will be required to be undertaken by a suitably qualified ecological consultant. Certain surveys, such as bat surveys, will require a consultant with a license to survey certain species. The council is unable to recommend consultants but do have a list of consultants, including licensed workers, that do work in Neath Port Talbot. This list can be found towards the end of ecological consultant<sup>7</sup> document.

- The impact that the proposed development will have.
- Proposals for mitigation, as appropriate.

#### 3.4 EIA Developments

For developments that require an Environmental Impact Assessment it is recommended that a scoping opinion be sought from the Planning Department. This will advise the applicant what types and level of biodiversity survey is required for the type of development and its proposed location.

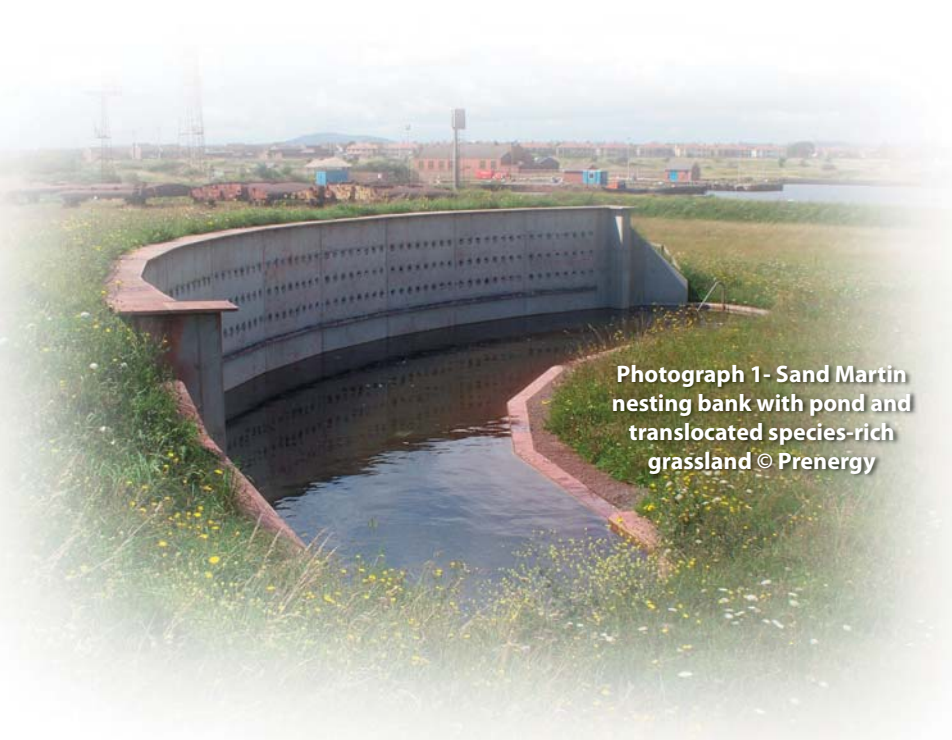


## 4. BIODIVERSITY MITIGATION AND COMPENSATION

The scale of mitigation or compensation required for developments impacting upon biodiversity normally relates to the scale of development and the scale of damage or impact upon the biodiversity effected (this will be highlighted by relevant survey work). Some ideas, advice and examples are provided in the following pages for large industrial developments such as large scale industry, quarries and minerals developments; large residential developments; small scale development and householder developments such as single dwelling plots and barn conversions. The consideration of biodiversity mitigation measures early in the design of a development is key. If good quality mitigation and/or compensation (if relevant) is provided early on in the planning process it is likely to speed up and potentially increase the success of the process in relation to the biodiversity aspects of the scheme.

**Mitigation measures of particular relevance to certain types of development are illustrated in different colour boxes, as follows:**

- Large Industrial Sites**
- Large Residential Sites**
- Small Scale and Householder Development**



Photograph 1- Sand Martin nesting bank with pond and translocated species-rich grassland © Prenergy

### 4.1 Retain Existing Habitats and Species In-situ

Avoidance of damage and adverse impact on habitat and species should be strived for before other mitigation and compensation is considered and this should be done as early as possible within the development design process. This may need to include consideration of designing the footprint of the development to avoid such important areas. Where this is not possible further mitigation or compensation measures may be needed to be implemented, such as relocation or creation.

Large Residential

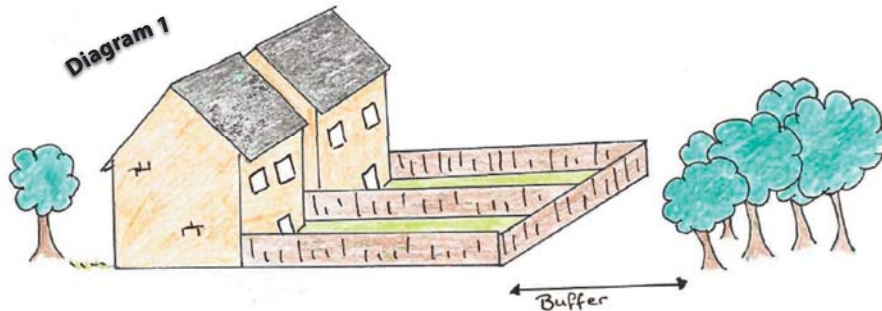
Including habitats into areas of open space or the landscaping scheme could be an option to consider. For example the residential development off Gelligron, Pontardawe includes an area of retained habitat as a mini nature reserve.

Small scale

Even small plots can support important features for wildlife and these should be retained as far as possible. Most commonly, trees and hedgerows are the features found on such small sites, especially when plots have previously been part of a larger garden. Where possible these should be retained, at least around the boundaries of the site as they can be important for species such as birds and bats.

#### 4.1.1 Buffers

Where large development is sited on greenfield land often the key habitats to consider are woodland, hedgerows and streams. Woodland should be retained and protected wherever it occurs and developments should be designed to avoid such habitat and provide a buffer from it. The buffer will protect the woodland edge habitat and root system and also ensure that future damage does not occur from adjacent properties, through removal of overhanging branches and fly tipping for example. Ideally a 10m buffer zone should be put in place from the woodland edge.



Buffer zones should also be put in place between water courses and development; thereby protecting the watercourse itself, providing potential access for any flood defence or other works, ensuring that the wildlife habitat is protected and providing some leeway in case

the watercourse changes its course or starts to erode certain sections. A 7m buffer zone is standardly required for watercourses. These buffer zones should not be included in gardens where future owners can subsequently damage and encroach. See diagram 1.

#### 4.1.2 Connectivity

Hedgerows and large trees can be key to providing corridors and connectivity of habitat for wildlife to use to move through a development to adjacent areas. Retaining as many of these sorts of habitats could be seen as an instant mature landscaping scheme. Such habitats lend a certain maturity and greening to a site that could increase the visual appeal of a development as well as continue to provide biodiversity interest. It is particularly key to consider where such habitats form key links to habitats off-site, such as hedgerows linking woodlands, in order to ensure the most important links are designed into a development layout. See diagram 3.

### 4.2 Relocate Habitats and Species

#### 4.2.1 Habitats

Some habitats such as grasslands lend themselves to be relocated to another location, preferably still on site or close-by. Some grasslands may be turfed and translocated such as the species-rich grassland close to Port Talbot docks shown in the photograph 1.



Photograph 2- Sand Martins using the newly created artificial nesting bank © Prenergy

#### 4.2.2 Species

Large Industrial

The Sand Martins previously nesting in a sand and gravel extraction quarry at Port Talbot Docks have been successfully relocated to a custom built structure, as shown in photographs 1 & 2. The pond provided below the nesting sites provides a food source for these birds. All of these measures were provided as part of the mitigation strategy for a Biomass Plant in Port Talbot developed by Prenergy.





In Neath Port Talbot reptiles are commonly required to be translocated from a development site. This can be tricky as a suitable receptor site for these animals needs to be provided. It is often the case that areas of suitable habitat already support existing reptile populations and therefore it is unlikely that it would be appropriate to add further animals to such locations.



Therefore, receptor sites often need to be created from unsuitable habitats, such as grazed farmland with short grass. In some cases an area within the development can be retained as a receptor site and improvements made to the habitat to allow the area to provide for additional animals from the rest of the development site. Such measures could include the creation of hibernation or breeding sites (see diagram 2). The potential requirements for reptiles need to be considered early on in the design of a development as further land may be required if a suitable receptor cannot be provided on the development site itself.

Large Residential

Another species that has been relocated in recent years is the Great Crested Newt at Coed D'arcy. This species is a European Protected Species so requires a licence from the Welsh Government to permit the translocation. A set of new ponds were required to be created just off-site of the development, which link to a network of ponds, wetland features and Sustainable Urban Drainage schemes along one boundary of the site towards the adjacent Crymlyn Bog designated site.

Further information on reptiles and amphibians can be found in 'Amphibians and Reptiles in South Wales' by NPTCBC/SWWARG<sup>9</sup>.

## 4.3 Create New Habitats or Enhance Existing

### 4.3.1 Creation

Habitats such as species-rich grasslands, woodland and ponds may be easily created and incorporated into landscaping schemes for sites. Just by planting or seeding areas with native species these sorts of habitats can be created. Even heathland and reedbed may be possible to create on or off-site using standard methodologies. However, it is difficult to replicate habitats that rely on specific hydrological and other natural conditions such as bogs, wet woodland and sand dune, so these should be avoided, wherever possible, and left in-situ.

The location of such habitats within a development is key. They should ideally be situated so as to provide connectivity with adjacent habitats in the surrounding area (see diagram 3). They should not be isolated or surrounded entirely by the development itself (see diagram 4). The creation of new habitat areas may require specific management so a management plan for these areas is normally part and parcel of the mitigation package.



### 4.3.2 Management and enhancement

Where habitats already exist on site a little bit of appropriate management can go a long way to enhancing these areas for wildlife, for example woodland may need thinning, grassland may just need a change in cutting regime to avoid flowering and seeding times, ponds may just need a clear out as they could be choked with vegetation. Otherwise, creating additional features within existing habitats can aid the diversity of such areas e.g. by putting in ponds, creating glades in woodland or creation of habitat piles (log piles etc) for wildlife to use for nesting and hibernating.



#### 4.4 Restoration

##### Large Industrial

An example of management of existing habitats can be found at the Selar Opencast Coal Site close to Blaengwrach in the Neath Valley, which includes an area of nature reserve owned and managed by the company (see photograph 3). The nature reserve supports a diverse array of habitats, such as hay meadow, woodland gorges, and regenerated coal spoil tips. These have been retained, managed and monitored for a number of years.

The nature reserve is largely managed through careful grazing by local farmers. The timings and rotation of the grazing is carefully scheduled around the ecological requirements of each field. Some of the fields within the nature reserve have developed over the years and now provide a useful source of seed for ongoing restoration of the working site.

##### Large Industrial

For minerals and quarry developments in particular, restoration schemes may be the main way that the development can deliver biodiversity mitigation and enhancement measures. Restoration plans can incorporate any number of proposals for biodiversity including significant habitat creation.

Quarry benches can form important areas for birds of prey to breed, even whilst the quarry is working, and these areas can be retained long term providing key breeding sites for some of the rarer birds in the area. Sensitive restoration blasting of the quarry walls can also create a variety of habitats through the creation of scree and benches. Quarry floors, if not needed to be completely filled, can easily be converted into wetland features.

Opencast coal sites provide almost a blank canvas for habitat creation and if designed correctly could make an improvement to the diversity of habitats in

certain areas, especially where uniform farmland was the original use. Various types of grassland can be created through appropriate seeding and with the ability of designing landform areas can be designed to dip thereby aiding the formation of wetlands; whilst the retention of some areas of spoil can add another important habitat element that can be good for invertebrates and reptiles. This sort of large scale development can provide opportunities to develop and experiment with new habitat creation and restoration techniques.

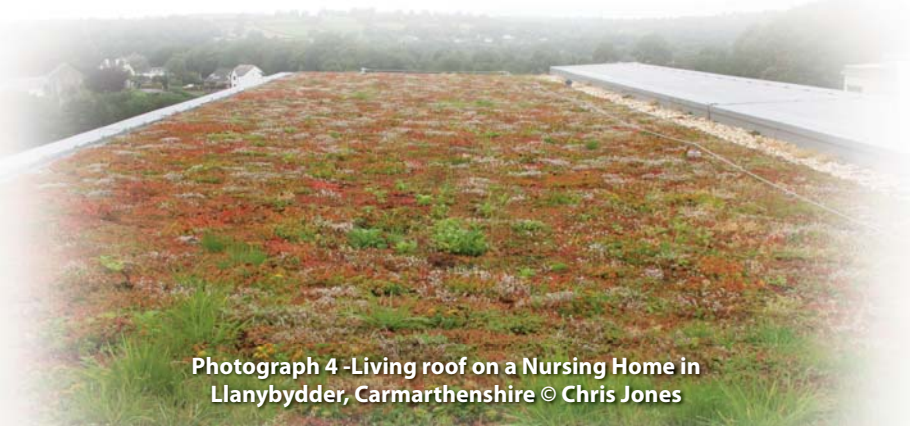
Appropriate extraction, separation and storage of soils can be key to the restoration of certain habitat types; especially where hydrological conditions reliant on clays are the essential element. Timing of placement of such soils can be critical and should be appropriately planned to ensure that storage of certain soils is not undertaken for any longer than needed. In some cases it may be appropriate to place soils directly to bed as part of a phased restoration; thereby reducing the need to store at all. This would be particularly important for soils that can be damaged by drying out; such as peaty soils.

For ideas and examples of what can be done as part of restoration schemes please visit the Minerals Products Association Website<sup>10</sup> and Nature After Minerals Website<sup>11</sup>.

## 4.5 Development Design

### 4.5.1 Roofs and Walls

The creation of habitats does not have to be traditional in location, green and brown roofs are a fantastic way to provide wildlife habitats when ground space is limited. Brown roofs in particular are great for supporting important bird and insect species that would otherwise be lost or displaced, especially on brownfield sites (see photograph 4). This sort of technique has been used all over the country partly because it has benefits for energy and water efficiency and helps meet environmental auditing standards, BREEAM and sustainability requirements. This technique has also now advanced to green or living walls where vegetation is encouraged to grow on walls of buildings.



Photograph 4 - Living roof on a Nursing Home in Llanybydder, Carmarthenshire © Chris Jones

Large Residential

In recent years developments incorporating apartment blocks have started to include 'green walls or facades' into their developments. These can vary in design and complication but in its simplest form involves encouraging climbing plants to cover a wall using a form of trellis, often metal wires. Green walls are a good option for urban developments where the development footprint provides little room for landscaping.

For more information of green/brown roofs and walls visit the Living Roofs<sup>12</sup> and Green Walls<sup>13</sup> Website or see the English Nature 'Living roofs' leaflet<sup>14</sup>.

### 4.5.2 Sustainable Urban Drainage

Sustainable Urban Drainage (SuDs) is also a useful way of encouraging biodiversity into development; as part of a drainage scheme.



Photograph 5 - Wildflower Meadow

Such systems have a large number of benefits; e.g. they can treat poor water quality, manage flow rates, provide wildlife habitats and can be more visually appealing.

For more guidance on SuDs please look at the Environment Agency guidance on the Environment Agency website<sup>15</sup> and visit the CIRIA website<sup>16</sup>.

### 4.5.3 Landscaping

Landscaping is often the easiest way to incorporate biodiversity into a scheme. Wildflower seeding, hedgerow and native tree planting are easy to include in a landscaping scheme. Wildflower seeding, in particular, has become popular in recent years, especially alongside roads.

Large Industrial

The Harbourway Road scheme in Port Talbot has incorporated a great deal of wildflower seeding aiming to encourage bumblebees and butterflies. Similar seed mixes have been used in the Baglan Energy Park close to the Council offices at the Quays (see photograph 5).

Further information on wildflower seeding is available in the 'Bees and Development' leaflet<sup>17</sup>.

Wildlife-friendly species of plants can easily be incorporated into the more ornamental requirements of a scheme; there are a great number of varieties that provide shelter or a food source for wildlife. For further information lists of wildlife-friendly plants can be found on the Plant for Wildlife<sup>18</sup> and Plant Press<sup>19</sup> websites. Also, see the 'Go Wild in your Garden' leaflet<sup>20</sup> for further ideas.



It is easy to add or create small scale features that will support wildlife within a landscaping scheme or garden. These can range from planting wildlife-friendly plants or trees, to creating a small pond or a habitat pile.

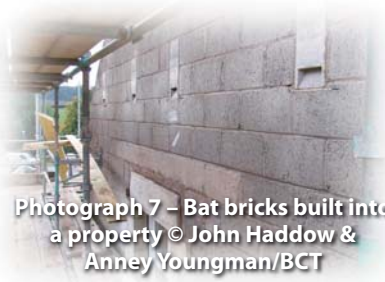


Photograph 6 – Bat bricks in gable end  
© John Haddow & Anney Youngman/BCT

#### 4.5.4 Homes for Wildlife

Buildings themselves can be designed to provide shelter for species such as birds and bats. Bird or bat boxes can be placed on buildings or on trees within the development. For more permanent features, bat or bird bricks can actually be built into the building construction itself (see photographs 6 & 7).

Generally speaking these sorts of features have to be placed relatively high up out of reach of predators such as cats and, especially in relation to bats, away from lighting.



Photograph 7 – Bat bricks built into a property © John Haddow & Anney Youngman/BCT

In residential buildings placement in the gable ends of properties seems popular. For further information on bat bricks and other bat mitigation visit the Bat Conservation Trust Roost Website<sup>21</sup>. In addition bats can also be accommodated by providing access into a roof void through gaps behind fascias for example. However, please note that if bats have been discovered on the site, specific mitigation measures may be required. Please refer to the section on Protected Species Mitigation.

Larger birds such as Barn Owl require more specific accommodation, which is often most relevant for conversions and developments in the countryside, particularly barn conversions. Barn owl boxes and ledges can be incorporated or an area of roof void segregated to

provide a nesting area. Further info on providing nesting sites for barn owls can be found on the Barn Owl Trust website<sup>22</sup>. Specifically in relation to barn conversions download the Barn Owl Trust leaflet<sup>23</sup>.

Other species of bird, such as Swallow, House Martin and House Sparrow, require specific designs of artificial nests. These are just as easily sourced and incorporated into building schemes as standard boxes.

Some standard specifications for artificial nests include:

**For developments in urban or sub-urban locations:**

- **House Sparrow Terrace -** Wooden (or woodcrete) nest box with 3 sub-divisions to support 3 nesting pairs. To be placed under the eaves of buildings. Entrance holes: 32mm diameter. Dimensions: H310 x W370 x D185mm.
- **Swift Nest -** Wide box with small slit shaped entrance hole. Must be placed under or close to roofs, at least 5m from the ground. Dimensions: H150 x W340 x D150mm.

**For developments in the countryside or involving farm buildings:**

- **Swallow Nests -** Cup-shaped nests to be placed inside outbuildings with guaranteed flight path. 3 should be placed high up, preferably on beams, at least 1m apart. Dimensions: H110 x W250 x D140mm.



Barn Owl © Chris Knights/Ardea.com

- **House Martin Nest (Double)** - Pair of cup-shaped nest with smaller opening near top, to be placed under the eaves of buildings, at least 2m from the ground. Dimensions: H110 x W460 x D140mm. NB Can create mess.
- **Swift Nest** - Wide box with small slit shaped entrance hole. Must be placed under or close to roofs, at least 5m from the ground. Dimensions: H150 x W340 x D150mm.

In addition to providing homes for wildlife within a building design it is just as important to avoid the use of materials, such as chemical treatment of timbers that can also be detrimental to wildlife such as bats.

There are a number of alternatives that are now 'wildlife friendly' and these should be used wherever possible. Please see the Natural England Leaflet on 'Bat Friendly timber products'<sup>24</sup>.

#### 4.6 Compensation (Off-site Projects)

Where mitigation measures cannot address all of the impacts on biodiversity, it may be necessary to compensate for any losses or damage on site with off-site works or financial contributions. Where it is impossible to accommodate the needs of biodiversity within a site it may be possible to provide some sort of benefit for biodiversity on other land within the applicant's control.

Alternatively, as a last resort, financial contributions towards a biodiversity project to be run by the Council or other local biodiversity organisation could be considered. This could be to support existing projects, or purchasing and managing (or creating if necessary) a suitable area of habitat, etc. However, these options are always considered a last resort and all other options to mitigate or compensate on the development site should be ruled out first.

Large Industrial

Some examples of off-site projects have included the management of adjacent habitat areas to maintain and enhance the biodiversity for the long-term for a sub-station in Margam and the the improvement of an off-site habitat to maintain a significant reptile population for the Harbourway road scheme.

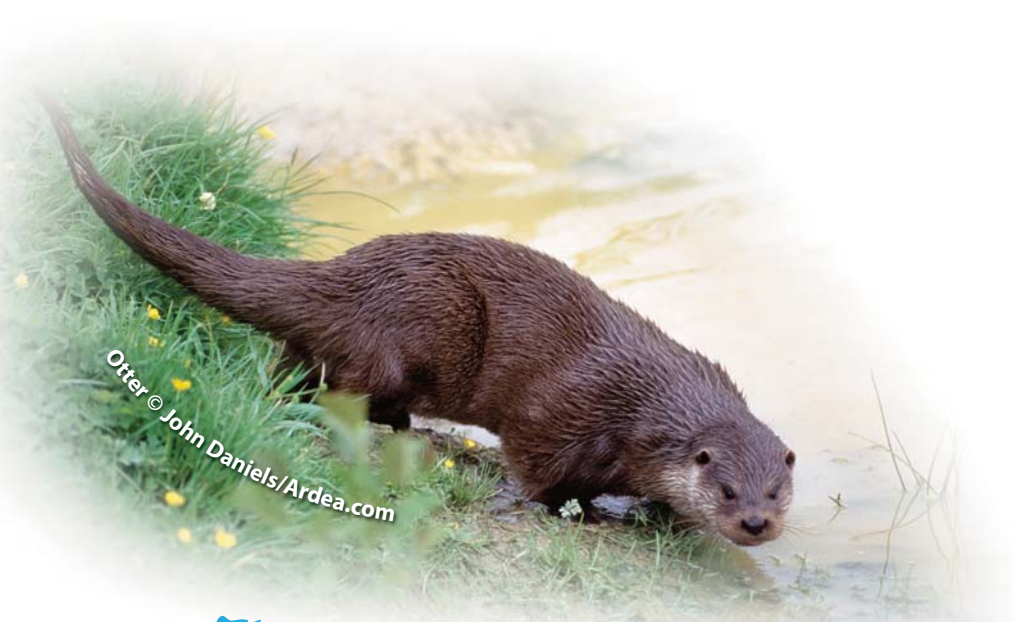
Large Residential

In addition, projects have included the creation of ponds, to allow the translocation of Great Crested Newts, and the creation of new badger setts at Coed D'arcy; and the construction of a new building on adjacent land to accommodate bats in Pontardawe.

These sorts of schemes are often addressed by S106 agreements. For further information about such agreements please contact the Planning Department.

#### 4.7 Timing

Biodiversity is often season specific. Certain species appear or are most active only during certain times of the year. Therefore, not only do surveys have to be undertaken at certain times but so do some mitigation works. Appropriately scheduling these sorts of works is key to the avoidance of delays. Some key timing constraints are shown in the following table:



Survey for:	Type	J	F	M	A	M	J	J	A	S	O	N	D
Badgers	Sett creation	/	/	/	/	/	/	/	/	/	/	/	/
	Sett closure (under licence)								/	/	/	/	
Birds	Vegetation clearance	/	/						/	/	/	/	/
Reptiles	Capture and translocation				/	/	-	-	/	/			
	Vegetation clearance	/	/	/								/	/
Great Crested Newts	Newt trapping - pond & land (under licence)			/	/	/	/						
	Newt trapping - land (under licence)			/	/	/	/	-	-	-	-		
	Planting and translocation	/	/	-	-					-	/	/	/
	Wildflower Meadow Cutting (hay-cut)				/					/			
	Holt creation	/	/	/	/	/	/	/	/	/	/	/	/
	Roost creation (separate to existing)	/	/	/	/	/	/	/	/	/	/	/	/
	Works to maternity roosts (under licence)	/		/	/					/	/	/	/
	Works to hibernation roosts (under licence)					/	/	/	/	/	/		

/= optimal time for works. - = sub-optimal time for works.

Please note that the above table is only a guide to the general timing constraints commonly encountered. For works involving protected species that require a licence more specific timings may be put in place for the specific development. Further advice should be sought from the licensing body in this respect e.g. the Countryside Council for Wales or Welsh Government. Also, depending upon the species seeded, wildflower meadow cutting timings may vary.

#### 4.8 Monitoring

Monitoring by an ecologist during work and after completion, to ensure mitigation / enhancement has been successfully implemented, is key. This will allow changes to management techniques to ensure that the desired habitat and species populations are developed and maintained as intended.

#### 4.9 Protected Species Mitigation

Where a protected species has been discovered on site, suitable mitigation will need to be provided for any development to proceed. Mitigation for European protected species such as Bats, Otter and Great Crested Newts will need to be undertaken under licence from the Welsh Government with advice from the Countryside Council for Wales. Discussion with CCW early in the planning stage of any development



likely to impact upon such species is recommended, to establish what would be required in relation to mitigation. In certain cases mitigation may prove to be more difficult or costly to accommodate if not considered early enough.

Examples of mitigation for European protected species have included the creation of ponds and translocation of Great Crested Newts at Coed D'arcy; the provision of a 'Bat House' for Bats in Pontardawe and Coed D'arcy; maintaining bat foraging paths and reducing light spill in Ystalyfera. Bats are commonly the species most encountered by developments in Neath Port Talbot. Great Crested Newts and Dormice are uncommon in Neath Port Talbot so are not usually encountered. Impacts upon Otters are normally avoided through the application of the buffer zone mentioned in previous pages. For further ideas and advice on Bat mitigation please visit the Bat Conservation Trust Roost Website<sup>24</sup>.

Small scale

Bats are often the most commonly encountered protected species in smaller and householder developments. Examples of mitigation for bats have included the provision of bat boxes, bat bricks, providing continued access to the roof void.

Similarly for protected species listed under the Wildlife and Countryside Act or Protection of Badgers Act, mitigation may require a licence from CCW so should also be discussed early.

For a full list of protected species visit our Biodiversity and the Law webpages<sup>25</sup>.

#### 4.10 Protected Site Mitigation

Impacts upon designated sites should be avoided at all costs. It would be a rare situation for a development to be permitted to proceed if significant impacts upon such sites are predicted. In certain circumstances developments may be acceptable where mitigation measures satisfactorily minimise impacts; for example pollution prevention measures.

For designated sites of national and international importance, advice will need to be sought

from the Countryside Council for Wales as early as possible in the planning of the development. Again, it may be the case that if the requirements of such sites are not considered early in the design process it may be very difficult and costly to incorporate them later on.

Suitable mitigation will be highly dependent upon the important features of the particular site in question, hence why advice should be sought.

For European and Internationally designated sites an assessment may be required to be undertaken under the Conservation of Habitat and Species Regulations 2010 in relation to potential effects of the development upon such sites. A great deal of information may be required to be provided to aid the Authority in this assessment.



## 5. FURTHER INFORMATION AND REFERENCES

1. Planning Policy Wales, Ed. 4, February 2011 – Welsh Government  
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2. Technical Advice Note 5: Nature Conservation and Planning, 2009 – Welsh Government  
[www.wales.gov.uk/topics/planning/policy/tans/tan5](http://www.wales.gov.uk/topics/planning/policy/tans/tan5)
3. Neath Port Talbot Unitary Development Plan – NPTCBC  
[www.npt.gov.uk/ldp](http://www.npt.gov.uk/ldp)
4. Neath Port Talbot Local Biodiversity Action Plan  
[www.npt.gov.uk/biodiversity](http://www.npt.gov.uk/biodiversity) (downloads)
5. Biodiversity Supplementary Planning Guidance – NPTCBC  
[www.npt.gov.uk/biodiversity](http://www.npt.gov.uk/biodiversity) (downloads)
6. UK Biodiversity Action Plan  
[www.ukbap.org.uk](http://www.ukbap.org.uk)
7. Ecological Survey Advice including how to choose an ecological consultant (Wildlife and Development Sites) – Association of Local Government Ecologists/ NPTCBC  
[www.npt.gov.uk/biodiversity](http://www.npt.gov.uk/biodiversity) (downloads)
8. Think Wildlife! – Glamorgan Biodiversity Advisory Group  
[www.npt.gov.uk/biodiversity](http://www.npt.gov.uk/biodiversity) (downloads)
9. Amphibians and Reptiles in South Wales – NPTCBC/SWWARG  
[www.npt.gov.uk/biodiversity](http://www.npt.gov.uk/biodiversity) (downloads)
10. Minerals Products Association Website  
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14. Natural England Living Roofs Leaflet  
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15. Environment Agency Wales Website- SuDs  
[www.environmentagency.gov.uk/business/sectors/37026.aspx](http://www.environmentagency.gov.uk/business/sectors/37026.aspx)
16. CIRIA Website -SuDs  
[www.ciria.org.uk/suds](http://www.ciria.org.uk/suds)
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18. Plant for Wildlife Website  
[www.plantforwildlife.ccw.gov.uk](http://www.plantforwildlife.ccw.gov.uk)
19. Plant Press Website  
[www.plantpress.com/wildlife](http://www.plantpress.com/wildlife)
20. Go Wild in your Garden Leaflet – NPTCBC  
[www.npt.gov.uk/biodiversity](http://www.npt.gov.uk/biodiversity) (downloads)
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<http://roost.bats.org.uk>
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25. Neath Port Talbot Biodiversity and the Law Website  
[www.npt.gov.uk/biodiversity](http://www.npt.gov.uk/biodiversity) (biodiversity and the law)

Links are available to all of these references via the webpage version of this booklet.

## 6. CONTACTS

### **Neath Port Talbot CBC Biodiversity Unit**

[REDACTED]

Web: [www.npt.gov.uk/biodiversity](http://www.npt.gov.uk/biodiversity)

### **Neath Port Talbot CBC Planning Department**

[REDACTED]

Web: [www.npt.gov.uk/planning](http://www.npt.gov.uk/planning)

### **Countryside Council for Wales**

[REDACTED]

Web: [www.ccw.gov.uk](http://www.ccw.gov.uk)

### **Welsh Government – European Protected Species Licensing**

[REDACTED]

Web: [www.wales.gov.uk](http://www.wales.gov.uk)

### **Welsh Government – Planning Division**

[REDACTED]

Web: [www.wales.gov.uk](http://www.wales.gov.uk)





## A Better Deal for Future Generations - setting the challenge for the Cardiff Capital Region City Deal

### Future Generations Commissioner- Sophie Howe

#### Introduction

City Deals are a vital opportunity for our public service leaders to demonstrate how they are planning for the future - tackling the problems of today but with the longer-term impact at the forefront of their planning.

Gone are the days when we can look at a single issue in isolation. People's lives are not lived in silos. The ability to work is not just dependent on skills but other factors such as having a transport system that is affordable and easily accessible. It depends on good health and wellbeing, for which we need access to green spaces and clean air.

As decisions about the Cardiff Capital Region City Deal are being made since the Well-being of Future Generations Act came into force they are an important milestone in the life of the Act. They offer an opportunity for us to see how local authorities, Welsh Government, and other partners are working to fulfil their obligations. That is, how they intend to maximise their contribution to the well-being goals using the five ways of working set out in the Act.

As a 20-year programme, the City Deal also offers an unusual and valuable opportunity for the authorities involved to work on a longer time frame. Short-term funding cycles are often blamed by public bodies for an inability to make long-term plans with positive long-term impacts, so we expect that they will welcome the opportunity that the City Deal programme offers to do just this.

It is also an opportunity to show how applying the Act to a major public investment programme could deliver not just some anticipated short-to-medium term economic gains in the traditional way but also transformational change in terms of our economic, social, cultural and environmental well-being. It is a chance to rise to persistent challenges such as climate change, poverty, inequality, social cohesion, jobs and skills in a truly long-term and preventative way.

#### 1. What kind of economic development?

The overarching priorities and approaches for the City Deal programme, set by the UK Government, demand that the projects emerging from this Deal should be able to contribute to a five percent uplift in regional Gross Value Added (GVA) in south east Wales. However, chasing GVA uplift 'alone' is not compatible with pursuing the well-being of future generations and Welsh public bodies' commitments under the Act. The statutory definition of 'a prosperous Wales' sets out significant non-negotiable qualifiers about the nature and direction of economic development, specifically tying this to the creation of a low-carbon society, respecting environmental limits by using resources efficiently and proportionately, and acting on climate change.

The 10 Local Authorities and the Welsh Government are subject to the duty under the Well-being of Future Generations Act. They must demonstrate that the City Deal will enable them

to pursue an appropriate type of economic development, maximising their contribution to the seven well-being goals.

To develop a programme in 2016 that does not have low carbon as its central pillar is not just environmentally irresponsible - it is also economically irresponsible. Not only is there a need to meet the obligations under the Environment Act and the recently ratified Paris agreement, but the long-term costs to the economy of failing to tackle climate change and failing to secure reliable, affordable energy are going to be significant. Thinking in the long-term way the Act requires, means that the City Deal cannot discount these future costs if this risks leaving future generations with the consequences such as financial and environmental debt to pay. For example, a recent study<sup>1</sup> showed that a 21-year-old graduate will lose around £100,000 in income during their lifetime (with children of millennials thought to lose almost three times that) as a result of the economic burdens relating to climate change.

The global costs of tackling climate change to stabilise CO<sub>2</sub>e levels at 500-550ppm were estimated to be around 1% of Gross Domestic Product (GDP) by 2050, in a review undertaken by Nicholas Stern<sup>2</sup>. More recently, Stern has stated that the modelling under-estimated the hidden risks of climate change impacts and the costs could be higher and are likely to keep increasing until action is taken at all levels<sup>3</sup>. On the other hand, the benefits outweigh the costs: Stern valued these benefits at around \$2.5 trillion over the medium and long-term.

Some of the challenges and questions which the city deal must address include:

- Ensuring the business opportunities that will be pursued through the City Deal are appropriate for a low-carbon economy. For instance, what types of natural resource and energy do they depend on? Will they still be viable under projected climate change conditions and shrinking fossil fuel reserves?
- Ensuring investment in transport infrastructure as proposed realistically reduces the environmental costs of travel in the Cardiff Capital Region. It must take into account a range of scenarios about future travel needs, such as changing patterns of work, modes of transport and implications of ageing population – as well as a robust lifecycle analysis of the physical infrastructure required.

## 2. What kind of work, prosperity, and well-being and for whom?

The purpose of developing the economy is not purely to grow GDP. This alone will not achieve the Wales we want. In fact, there is growing evidence that shows increases in GDP have done little to reduce inequalities.

Research in Wales (e.g. the Deep Place studies) has shown that economic development routinely leaves behind substantial parts of the population. The Well-being of Future Generations Act requires this to change - the pursuit of prosperity is not a goal in isolation

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<sup>1</sup> <http://www.demos.org/publication/price-tag-being-young-climate-change-and-millennials-economic-future>

<sup>2</sup> [http://www.wwf.se/source.php/1169157/Stern%20Report\\_Exec%20Summary.pdf](http://www.wwf.se/source.php/1169157/Stern%20Report_Exec%20Summary.pdf)

<sup>3</sup> <https://www.desmogblog.com/2014/06/19/lord-stern-we-ve-underestimated-economic-costs-globalwarming>

but a means towards well-being in its widest sense. This includes addressing long-term challenges such as persistent poverty, poor health and improving the life chances for everyone, particularly the most disadvantaged.

There are stark differences across the Cardiff Capital Region in terms of levels of deprivation. The least deprived areas within the Region are found in southern parts of Bridgend and Rhondda Cynon Taff (Taff Ely), the Vale of Glamorgan, north Cardiff, suburban areas of Newport and large parts of Monmouthshire.

The most deprived areas are found in the south Wales Valleys, Barry, south Cardiff and inner Newport. Differences in employment and income accounts for about half of this difference: average unemployment is about 8%, slightly higher than the Wales and UK averages – but this varies from 5% in Monmouthshire to 13% in Blaenau Gwent. The region also includes some hotspots of youth unemployment (under 25s) – 26% in Blaenau Gwent; 22% in Rhondda Cynon Taff, and 20% in Torfaen<sup>4</sup>.

There is a huge variation in child poverty across the region: 34% of children in Blaenau Gwent are living in poverty compared with 15% in neighbouring Monmouthshire.

In eight of the ten Local Authority areas in the region, child poverty is above the Welsh average. The evidence shows that children living in poverty do less well at school and earn less as adults, thus perpetuating a cycle of poverty.

The Joseph Rowntree Foundation estimates that poverty costs the Cardiff Capital Region at least £2.2 billion a year.

Our population is ageing and becoming more diverse. Life expectancy is increasing for all, but not equally, and healthy life expectancy varies dramatically across the region. In some parts of the region, there is a 20-year difference in healthy life expectancy between the least and most deprived parts of the same areas, e.g. in Llynfi valley (Maesteg and Bridgend)<sup>5</sup>, or in Cardiff and Vale of Glamorgan<sup>6</sup>. In males, the gap in life expectancy between Blaenau Gwent and neighbouring Monmouthshire is 4.5 years.

Not only do people live shorter lives in Blaenau Gwent, the proportion of those years spent in good health is lower too. The percentage of males and females assessing their general health as good or very good varies markedly across the region with over 80% of those in rural parts of the Vale of Glamorgan, north Cardiff and much of Monmouthshire reporting good health, whilst in places like Barry, south Cardiff and large parts of the south Wales valleys the figure is less than 70%.

- The City Deal must play its role in reversing these inequalities, for example through stimulating different patterns of work and employment, and breaking inter-generational cycles of poverty where it is most persistent.

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<sup>4</sup> Public Health Wales Observatory

<sup>5</sup> <http://www.comfirstbridgend.com/news-and-information-home/article/00000118>

<sup>6</sup> <http://www.wales.nhs.uk/sitesplus/922/page/87233>



At the same time, global trends suggest that much low-skilled and manufacturing work will gradually disappear as digital and automated alternatives replace the need for human labour. These are trends that the City Deal will need to engage with over its lifetime, by considering, for instance:

- How the programme will make the best use of the skills already available in south east Wales, and build on them?
- How it will support the next generations to acquire a broad and adaptable skills base that will make them fit for future work, given that they may be earning their livelihoods doing work that we cannot yet imagine?
- How it will create opportunities for more women, older people and other underrepresented groups to participate in the workforce, engaging in productive and rewarding work?

As the Future of Work<sup>7</sup> report highlighted “work in the future will be more interconnected and network-oriented, where the high-skilled minority (characterised by their creativity, analytical and problem-solving capabilities and communications skills) will have strong bargaining power in the labour market, whilst the low-skilled will bear the brunt of the drive for flexibility and cost reduction, resulting in growing inequality.”

Technological changes and the pace of changes reported by World Economic Forum, indicate that globally a total loss of 7.1 million jobs are expected by 2020, two thirds of which are concentrated in office and administrative roles<sup>8</sup>.

These technological changes will influence the availability of jobs for a younger population, giving them an advantage growing up in a digital age. Workers in older age groups will need to embrace technology fully to compete in the labour market.

The projected trends pose a significant risk to wider economic strategies and the future of the economy in the region and the rest of Wales if we do not act now to plan for these changes.

Current trends show that in six of the ten Local Authorities, the proportion of school leavers with adequate basic skills and qualifications is below the Wales average, which will have a significant bearing on their prospects and life chances. It is vital that economic programmes are purposefully designed to tackle these issues, for instance by focusing opportunities, resources and investment in areas of higher deprivation, even if these are unlikely to offer the greatest absolute increases in GVA.

### 3. How does this help communities?

It is clear that many people in Wales feel disconnected from the decisions that impact on them, which are usually taken by others on their behalf and are often felt to be completely ineffective in improving their lives.

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<sup>7</sup> <http://mbsportal.bl.uk/taster/subjareas/hrmemptyrelat/ukces/1785622014-evidence-report-84-future-ofwork.pdf>

<sup>8</sup> <http://reports.weforum.org/future-of-jobs-2016/employment-trends/>

Brexit is a wake-up call for all those developing policy and delivering public services. Most parts of the region voted strongly to leave the EU, despite the huge investment of EU money here. It is hugely important to take every opportunity to use the City Deal programme to re-engage communities in determining their own future well-being.

The City Deal is likely to focus very heavily on investment in physical infrastructure, particularly transport infrastructure. Infrastructure can be an important enabler of well-being but only where the right contextual factors are in place and specific relevant efforts are made.

The 2007 Valleys Regional Park Visioning Report found that 48% of people living in the Valleys had no relationship with their natural green space. The Tredegar<sup>9</sup> and Pontypool<sup>10</sup> Deep Place studies in south east Wales have argued for a much stronger focus on whole place systems thinking with more focus on locally specific priorities to ensure equitable and sustainable outcomes for current and future generations. The City Deal must take account of the specific and rather diverse context of south east Wales and ensure that any investment in infrastructure is both locally appropriate and leverages wider well-being gains.

For instance, how does it address increasing demand for social and health care provision in the short-to-medium term future whilst reducing and preventing future need for such provision? Across Wales the NHS deficit is predicted to be £700m by 2020, and the Health Boards in the city region had reported deficits of £47m this year alone. The links between employment and health are well-evidenced and therefore the City Deal should be striving to deliver against our aspirations for a healthier nation, which means targeting attention on areas of high economic inactivity.

We also know that the environment is key to health, so programmes delivered as part of the deal need to seize opportunities to bring nature into the city environment, enhance public green space, and encourage cycling and walking through transport plans. Wales' Chief Medical Officer has identified physical inactivity as a principal health risk, which is costing Wales over £650m a year. Across Wales only 30% of adults do the recommended levels of exercise (30 minutes 5 or more times a week), and in this region eight out of ten areas are not even matching this average.

What works in one community may not work in another so it is important that whatever approach is adopted is both flexible and responsive to local preferences. We know that growth is likely to be seen in the larger cities of Cardiff and Newport, whereas Heads of Valleys will experience a decrease; and Monmouthshire is expected to see an increase in those aged 65 years and above.

A region with a thriving culture must have a strong sense of identity to help build pride in its place, and yet where people live is not the same as where they work. Across the region 210,000 people move from one Local Authority to another to work and more than 100,000 people move in and out of Cardiff each day. With a focus to drive the number of people speaking Welsh language to one million and the culture that this brings, the Region should look to take this opportunity to drive better integration.

<sup>9</sup> [http://www.regenwales.org/project\\_9\\_The--Deep-Place--Study](http://www.regenwales.org/project_9_The--Deep-Place--Study)

<sup>10</sup> <http://www.cardiff.ac.uk/sustainable-places/research/projects/the-deep-place-study>

- The City Region has the potential to provide a transformational opportunity for the area. Through an innovative, integrated approach to management and investment the City Region can take a lead in creating and sustaining an attractive, thriving, and productive environment that delivers sustainable economic, social, and environmental benefits and a high quality of life for all its citizens. The City Deal must ensure the distinctiveness and diversity of the region is reflected and enhanced in terms of culture, language and sense of place.

Moving forward in a place-based way will depend on involving local citizens and institutions in determining the relevant strategies. This goes far beyond carrying out time-specific consultation exercises as the Growth and Competitiveness Commission has apparently already done. It involves creating mechanisms for people to engage with and direct key decisions about what is done in their neighbourhood, throughout the lifetime of the City Deal programme, and working collaboratively with the full range of local institutions to deliver well-being writ large.

- What kinds of mechanisms will be put in place to ensure that community voice is a key driver of specific developments that will come about through this programme?

#### 4. Getting the best deal for Future Generations

Globally and in the UK, there are many examples of cities which have approached their economic development in innovative ways that put sustainability and citizens at the centre.

For instance, Stuttgart has brought landscape planning into the core of its city development approach, effectively creating a 'regional landscape park' which brings multiple social, environmental and recreational benefits and increases the region's competitiveness as a business location, supporting its economic development whilst helping the region to address climate change.

In the United States, Portland Oregon is delivering its sustainability goals by comprehensively changing its patterns of energy use – combining energy efficiency measures such as replacing their streetlights to LEDs with switching to clean renewable energy sources, generating solar power and disinvesting from fossil fuels.

Swansea is developing proposals for a city deal programme around the themes of connectivity, renewable energy and health and well-being.

These examples show that it is possible to get a virtuous spiral of impacts across economic, environmental, social and cultural domains if the approach is driven by a bigger and better vision than simply increasing economic activity or GVA. We would maintain that the Cardiff Capital Region deserves nothing less than a similar visionary approach fit for our future generations.