

# Theme 5:

## Building and Maintaining Sustainable Communities Towns and Villages

Overall:

GOOD

The indicators representing this theme are:

- **Indicator I3:** Flood risk, river levels and climate change
- **Indicator I4:** Health and wellbeing
- **Indicator I5:** Communities with a village plan and open space assessment

Very few areas of the Park are currently threatened by flooding and the majority of the Park is at relatively low risk from flooding. This indicator is in relatively good condition.

The indicator 'health and wellbeing of Park residents' is also in good condition, which has been demonstrated in the introduction to this report by comparing census data to the rest of Wales. The indicators used here identify the most popular and most frequent activities which Park residents undertake.

Village plans are a relatively new concept. While there is no legislative requirement for authorities to prepare these in Wales, work has commenced between the National Park Authority and Hay Town Council on a pilot project which will form the template for developing this with other community councils across the park. It is difficult to assess how this indicator is performing but by the next State of the Park Report, it is hoped that at least 2 village plans will have been prepared. Steps are also underway to prepare an open space assessment, using Brecon as the pilot area.

Using these three indicators to assess overall condition (Poor, Fair, Good or Excellent), the state of the park in the context of Management Plan Theme 5 is GOOD.



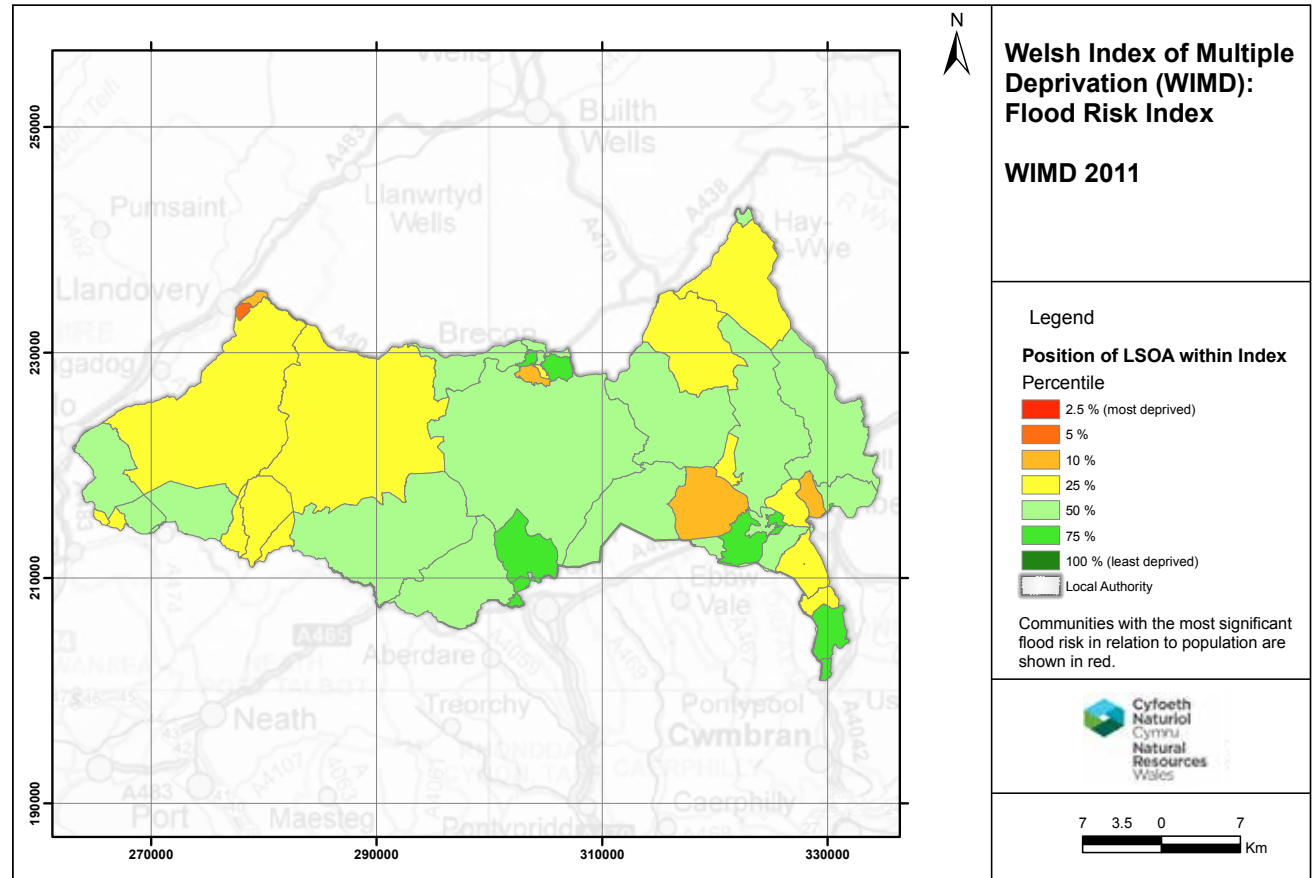
# Indicator 13:

## Flood risk, river levels and climate change

### Flood Risk

Map Flood I is taken from the Natural Resource Wales Evidence Pack for the Brecon Beacons National Park. It shows how the lowest geographical level at which census estimates are provided (output areas) in the National Park are ranked using the Welsh Index of Multiple Deprivation for Flood Risk.

Low ranking corresponds to a relatively high risk. The map shows that the majority of land within the National Park falls within the 50% percentile and is therefore at a relatively low risk from flooding. Significant areas of land fall within the 25% percentile and smaller areas fall within both the 10% and 75% percentiles. There is one very small area to the north west of the park near Llandovery which falls within the 2.5% percentile and is therefore one of the most likely places in Wales to suffer from flooding.



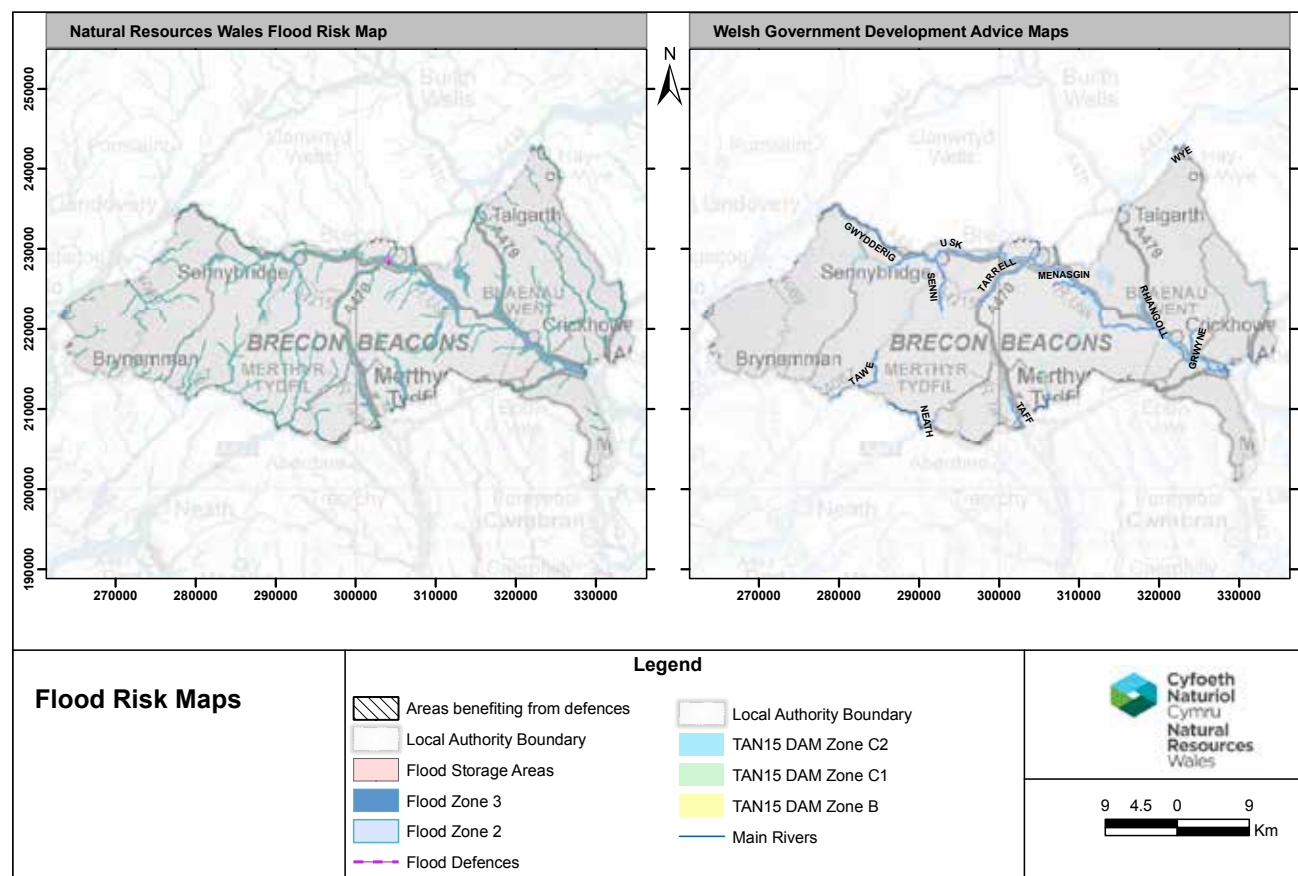
Map Flood I: Flood Risk Index (WIMD 2011)



Map Flood 2 is a more detailed flood map that shows the potential risk of flooding. Flood Zone 2 provides a best estimate of the areas of land with a 1000 to 1 chance of flooding in any year. It includes those areas defined in Flood Zone 3, which provides a best estimate of the areas of land with a 100 to 1 chance (or greater) of flooding each year from rivers.

Monitoring over time will require knowledge of flood defence systems. The map shows that flood defence systems are located at Brecon and Crickhowell, with some other flood defences just outside the Park Boundary (for example Llandovery, Three Cocks and various ones to the south of the Park). Zone C2 identifies areas of the floodplain without significant flood defence infrastructure.

These maps provide a baseline figure which future iterations of the State of the Park Report will compare against new data.



Map Flood 2: Flood Risk Maps

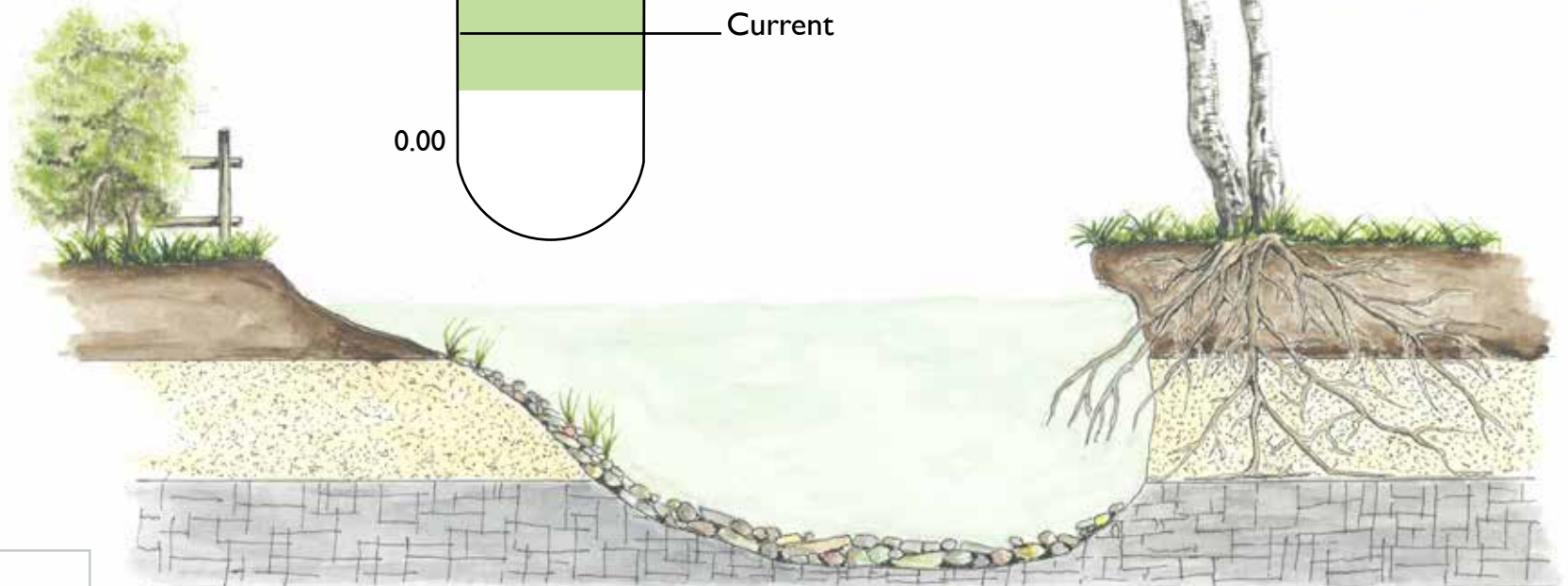
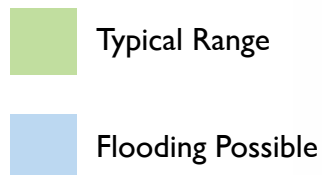
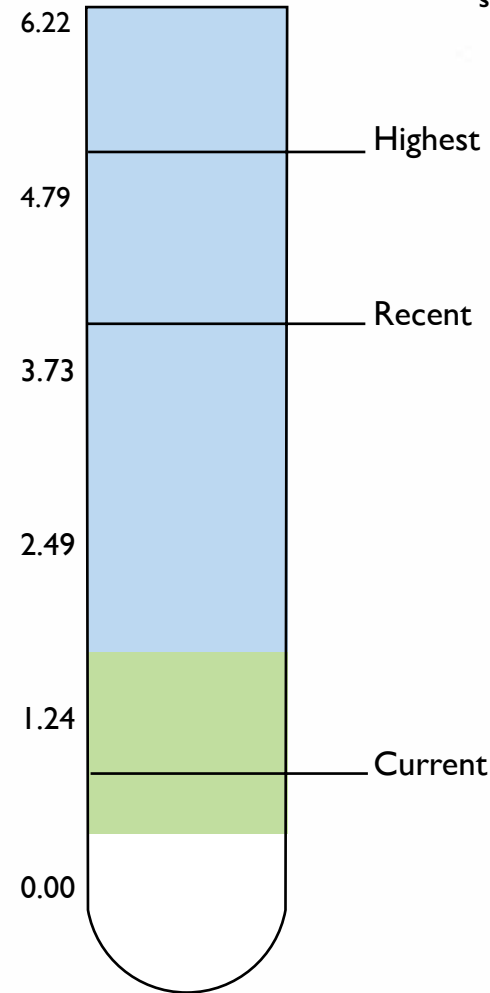
## River Levels

The Environment Agency (which has now been incorporated into Natural Resource Wales) measures river levels across England and Wales by collecting data from monitoring stations along the rivers.

One such monitoring station is located on the river Usk at Llandetty (see Graph Riv I). The typical river level range for this location is between 0.46m and 1.68m. The highest river level recorded at this location is 5.18m, recorded in October 1998 (having recorded information since October 1965). The highest recent river level reached 4.04m on 23 December 2013. On the 15 May 2014, the river level was 0.84m.<sup>20</sup>

Monitoring river level change is important because of the potential impacts it has on park management, biodiversity and directing the location of homes and buildings. It could be one of the concrete indicators of how global warming is affecting the Brecon Beacons National Park.

Graph RIV I:  
Data from the river Usk monitoring  
station at Llandetty



## Climate Change

Climatic conditions have always changed on both local and global scales. In the past, change was predominantly a result of natural causes. The most recent changes, however, are proving to be the result of human impact, mainly from the emission of carbon dioxide (CO<sub>2</sub>), methane and other greenhouse gases. There are now major concerns about future changes in the climate that will ultimately have significant effects on people's daily lives. There is no doubt that climate change will continue. However, the degree of change will be influenced by the level of global carbon emissions that continue to be discharged into the atmosphere. Various scenarios have been developed by the UK Climate Impacts Programme to examine regional effects. Climate change will provide a serious challenge in the future and have wide ranging implications for most aspects of life, from wildlife to planning decisions such as building development in flood plain areas. This change in climate will have serious implications for all sectors of the Park. Biodiversity could

be affected with some habitats becoming extinct and others altered, at best this could result in some species moving to more suitable areas. The risk of flooding caused by an increase in rainfall will have an adverse effect on areas built on the flood plains, with flooding becoming a bigger issue. Farmers may also be affected as they see a change in the crops they can grow, where they can grow them and the efficiency of grazing land. Archaeological resources and other components of the historic environment may be affected significantly by changes in climate, too.

The exact changes in climate are difficult to assess, especially for individual sites such as the Brecon Beacons National Park. However, scientists are predicting an overall increase in temperature in the UK, primarily in the summer when high temperatures are expected to become more frequent. South Wales is expected to have amongst the highest increases in summer temperatures for the UK.

The pattern of rainfall is also expected to change, with summers becoming drier and winters becoming wetter. Winter rainfall is also predicted to fall in more intense storms than at present.

As well as reacting to these challenges the communities of residents and visitors who come to the National Park can adopt proactive approaches to reducing the local "carbon footprint". Sustainable travel by public transport can reduce vehicle CO<sub>2</sub> emissions whilst encouraging enjoyment of the Park by visitors.

The Green Valleys hydroelectric scheme demonstrates how using renewable resources need not adversely affect the special qualities of the National Park, for example by designing, getting permission for and installing hydro turbines. By undertaking renewable resource schemes the Park will be in a stronger position to adapt to the predicted climate changes.





# Indicator 14:

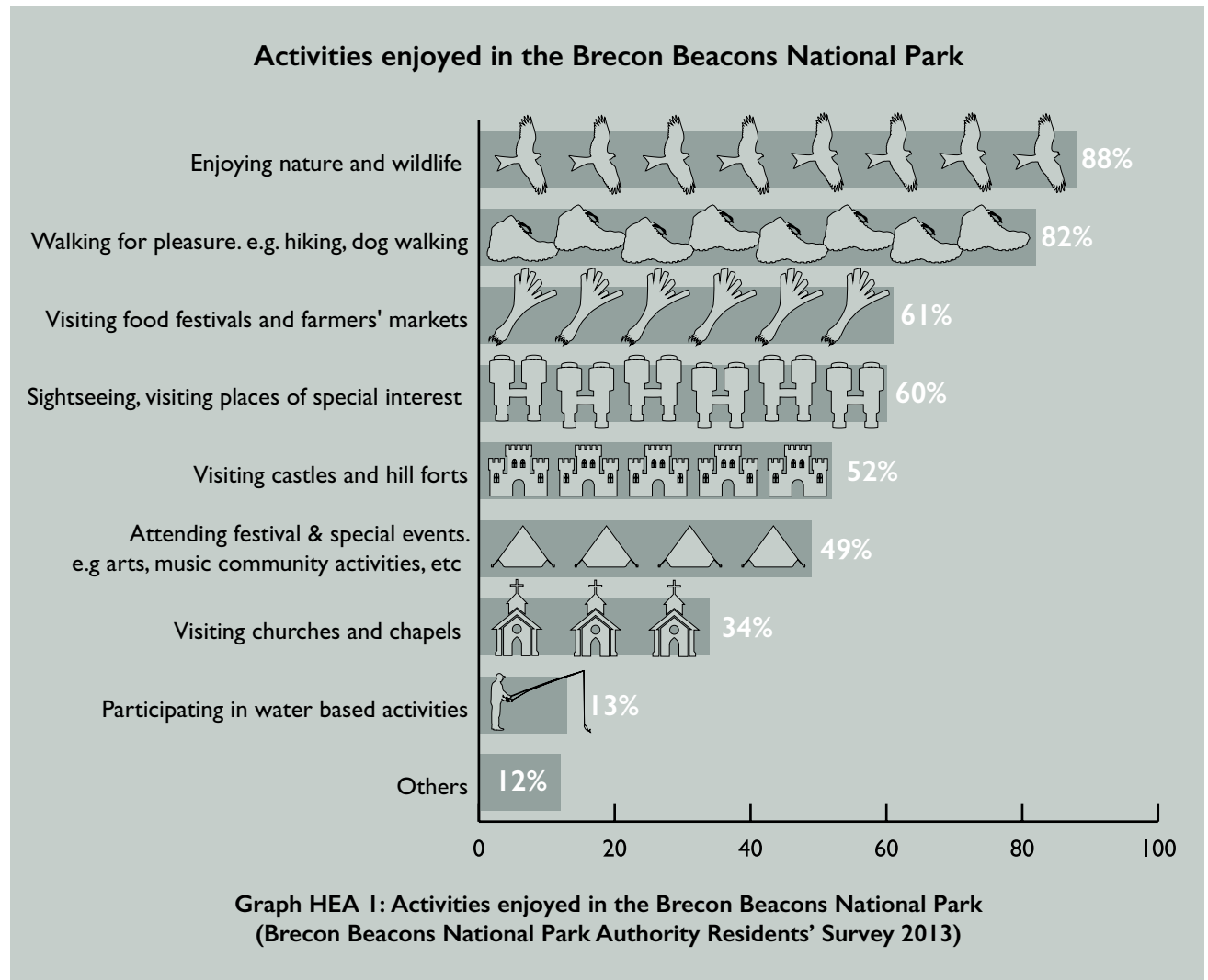
## Health and Wellbeing

National Parks have special qualities found in their unique environments. The Brecon Beacons National Park is rich in natural and historic heritage and is a unique health and wellbeing resource for both residents and visitors alike. It has already been established in the introduction to this report that the majority of national park residents, 82%, described themselves as being in good, or very good health. This percentage is slightly higher than for England and Wales overall. Given that the national parks have an older age structure than nationally, and that generally, health deteriorates with age, this indicates that people residing in national parks perceive themselves as in better health than do those living in the rest of the country.<sup>21</sup>

The Welsh Government makes clear links between the social and economic wellbeing of the nation with social inclusion and good health. We can understand more about the health and wellbeing of park residents through the residents' survey. The residents' survey was undertaken in 2013 and delivers data that is useful in terms of setting a baseline and for future improvements, thereby supporting state of the park reporting. A number of questions were asked under 8 broad themes. This report focuses on the following 2 questions, which are most directly related to health and wellbeing:

- What activities residents in the park enjoyed doing most?
- What activities residents undertook in the Park and how often they did them?

Residents were asked which activities they enjoyed doing in the Brecon Beacons National Park. Graph HEA1 shows the results.

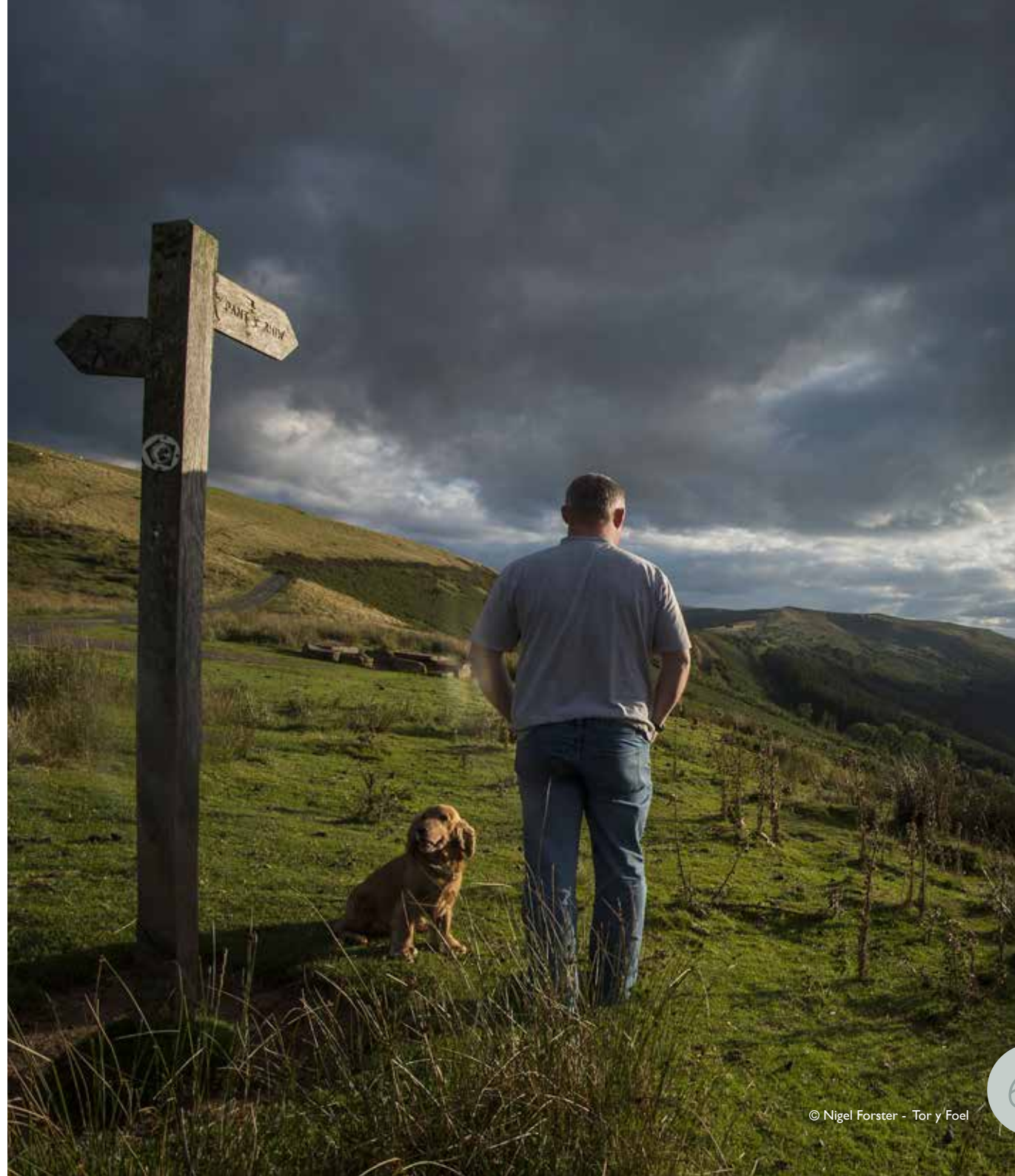


The most popular activity is 'enjoying nature and wildlife' with over four fifths (88%) of residents indicating they participate in this activity within the National Park. This is followed by 'walking for pleasure', with some eight in ten residents (82%) indicating this.

Between five and six in ten residents also enjoy sightseeing and visiting places of special interest, including food festivals and farmers markets and visiting castles and hill forts. Attending festivals and special events (e.g. arts, music, community activities, etc) appeals to almost one half of residents, while almost two-fifths enjoy visiting the area's churches and chapels.

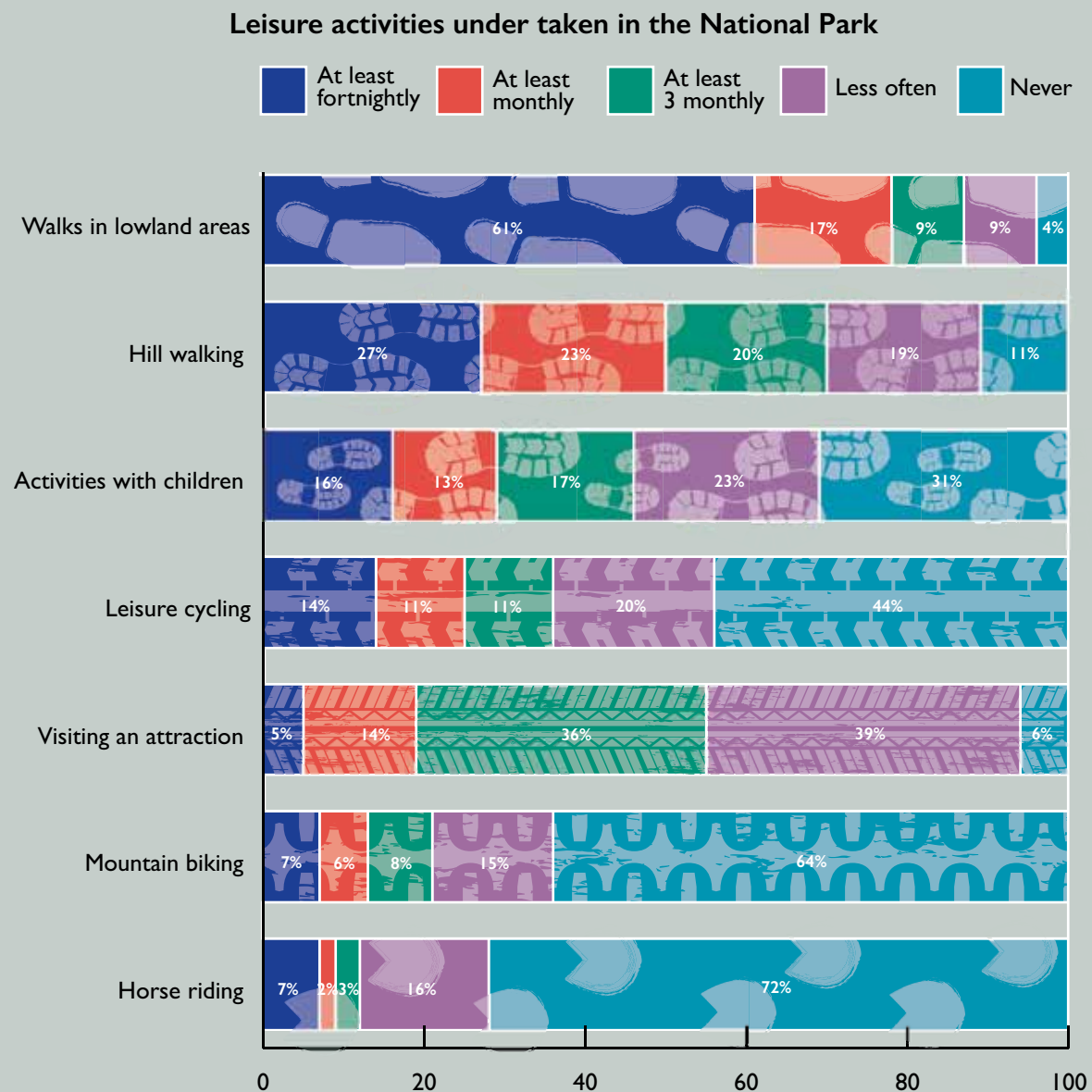
Fewer residents said they were interested in 'participating in water based activities'; with over one in ten residents indicating they do this. Perhaps unsurprisingly, this type of activity holds greatest appeal to younger residents and those with children in their household; 21% of those aged 44 and under indicate they participate in water based activities, as do 19% of those with children in their households.

- 'Walking for pleasure', 'Enjoying nature and wildlife' and 'Food festivals and food markets' are all activities that are enjoyed by a significantly greater proportion of those aged 16-44.
- Visiting churches and chapels' is enjoyed more by those in the older age group of 65+ than those aged 16 to 44; 45% vs. 24%, respectively.
- Linked to age, households with children are also more likely to enjoy 'visiting food festivals and farmers' markets'. By comparison, a greater proportion of those without children enjoy 'visiting churches and chapels'.





Residents were asked which activities they undertook in the Brecon Beacons Park and how often they did them. Graph HEA 2 shows the results.



Graph HEA 2: Leisure Activities Undertaken in the Park



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‘Walking in the lowlands’ is by far the most popular past-time with over three-fifths (61%) of residents participating in this activity at least fortnightly. ‘Hill walking’ is the next most popular activity with over one-quarter (27%) of residents doing this at least fortnightly and over a fifth (23%) doing this at least monthly.

The least frequently undertaken activities for residents are ‘horse riding’ and ‘mountain biking’, with over six in ten residents indicating they have never undertaken these activities within the National Park.

There are a small number of differences in the activities undertaken, at least once a month, depending on the profile of residents.

- Proportionally fewer of those aged 65 and over participate, at least monthly, in hill walking compared to younger residents.
- Leisure cycling, mountain biking and horse riding on a monthly basis attracts a greater proportion of those with children in their household and those under 44, compared to others.
- Visiting an attraction, such as a castle or museum, appeals to proportionally more of those that have lived in the area for ten years or less.
- Undertaking monthly activities in the National Park with children is highest amongst those aged 16 to 44.

Some 13% of residents (418 residents) indicate a range of additional activities they participate in within the Brecon Beacons National Park, including; fishing, golf, swimming, canoeing/kayaking, sailing, other sport activities, photography, bird watching and various other leisure based activities (e.g. pubs, restaurants, etc). Around one-half (51%) suggest that they participate in the activity they have indicated at least once per month.



# Indicator 15:

## Communities with a village plan and open space assessment

### Community Plan

Community Plans are a means of a community coming together to decide on what they want to improve or achieve in their areas. The end result of a Community Plan is usually an action plan that sets out how the community intend to make improvements to the local area. The actions may be for the community to do or with a partner. The number of communities with an adopted Community Plan will be a good indicator of which communities have made a commitment to social resilience in the National Park.

A Community Plan pilot project is currently being taken forward with Hay Town Council. If successful, it is proposed that the Brecon Beacons National Park Authority will assist with setting up at least one Community Plan per year and an update on the outcomes from this will be provided in future iterations of the State of the Park Report.

### Open Space Assessment

An Open Space Assessment will assist in the protection and provision of open space within communities.

Recreational open space is defined as an open area, whether in public or private ownership, which is available for sport, informal recreation or children's play. Recreational open space includes equipped children's play areas, informal play spaces and formal recreation areas, such as pitches, greens, athletic tracks, courts and educational land where it is laid out to accommodate formal recreation. An appropriate open space assessment will allow the National Park Authority to consider how any development proposals received would affect the provision of recreational open space in the local area and also the wider implications of it would cause a deficiency of open space.

An open space assessment is currently being prepared and results will be documented in future iterations of the State of the Park Report. Monitoring over time will provide an indication of the levels of different types of open space within communities. It is proposed that Supplementary Planning Guidance will be prepared using the assessment and this will be used to provide detailed guidance on the way in which the Brecon Beacons National Park Authority will assess development proposals which would involve the loss of open space or impact on it in some way.

Map OSI shows a screen shot of the draft Open Space assessment which is currently being prepared. The red polygons represent informal open space, pink polygons represent children's play areas, green polygons represent amenity open space (this is an area which does not have a defined recreational value but has particular value to the amenity of the surrounding area) and blue polygons represent education open space. A figure indicating the amount of all types of open space will be provided on completion of the assessment. This will be compared to the Fields in Trust requirement (the six acre standard) and the required amount of open space to be provided in hectares per 1,000 population.





