



# Clwydian Range and Dee Valley AONB

## Visitor Impacts Appraisal Final Report



**Bryniau Clwyd a Dyffryn Dyfrdwy**  
Clwydian Range and Dee Valley

**Ardal o Harddwch Naturiol Eithriadol**  
Area of Outstanding Natural Beauty

## Clwydian Range and Dee Valley AONB – Visitor Impacts Appraisal

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## 2. Introduction

The AONB *Sustainable Tourism Strategy and Action Plan 2015–2020*<sup>3</sup> envisages forms of tourism that ‘take full account of its current and future economic, social and environmental impacts, addressing the needs of visitors, the industry, the environment and host communities’. One of the strategy’s four functional objectives (visitor and place management) is to ‘improve, manage and monitor visitor flows for tourism, spreading benefits and addressing local impacts’.

Sustainable destination management by the AONB therefore involves careful balancing of multiple objectives, including:

- Conservation and management of natural sites that may be environmentally fragile.
- Contributing to the social wellbeing of local people and communities.
- Regional local economic development, and the spread of benefits throughout the AONB and to surrounding towns and villages.
- Continuing to create special and memorable visitor experiences.

The AONB attracts significant – and growing – numbers of visitors every year, many on day trips from the region as well as neighbouring parts of England. However, there are questions around how widely beyond the AONB the benefits of this tourism are currently spread, and whether there is potential to increase the spread of benefits to other towns and villages within and around it. Increased visitation also results in environmental and social pressures, as well as conflicts of interest over land use and resources, particularly in the case of ‘honeypot’ sites (see Chapter 3).

The overall goal of our research was therefore to carry out an appraisal of the economic, social wellbeing and environmental impacts of visits to six key visitor sites within the AONB: Loggerheads Country Park; Moel Famau Country Park; The Horseshoe Falls and Llantysilio Green Car Park and Picnic Area; Pontcysyllte Aqueduct and Trevor Basin; Panorama near Llangollen; and Chirk Aqueduct and Viaduct.

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<sup>3</sup> Clwydian Range and Dee Valley AONB (2014) *Sustainable Tourism Strategy and Action Plan 2015–2020*, The Tourism Company. Available at <https://www.clwydianrangeanddeevalleyaonb.org.uk/files/1079945525-Sustainable%20Tourism%20Strategy%202015%20-%202020.pdf>

Denbigh, Mold, Chirk and Prestatyn have an important relationship with the Clwydian Range and Dee Valley.

In the summer of 2018, the AONB commissioned NEF Consulting to carry out a visitor impacts appraisal, to measure and assess the economic and social wellbeing benefits and the environmental impacts of six key visitor sites across the AONB. Sites 1, 5 and 6 are part of the WHS, and site 4 lies in the WHS 'buffer zone' for planning purposes (see Section 3 below):

1. Chirk Aqueduct and Viaduct (CAV)
2. Loggerheads Country Park (LCP)
3. Moel Famau Country Park (MFCP)
4. Panorama (P)
5. Pontcysyllte Aqueduct and Trevor<sup>1</sup> Basin (PATB)
6. Horseshoe Falls and Llantysilio Green (HFLG)

The aim of the study was to inform the AONB and WHS response to increasing visitor numbers at these six key sites and to set out a sustainable approach to management, ensuring that the capacity and resilience of these sites are at the heart of that approach.

This report presents the findings of the visitor impacts appraisal. It is based upon a combination of extensive research into the local context and strategic management of the AONB, a visitor survey conducted in the area during the high and low seasons and online, and interviews with 20 local businesses.

The research findings include visitor profiles based on the survey data, along with an analysis of the economic impact of visitor expenditure in the area. The report provides an analysis of social impacts, including the benefits to the wellbeing of the visitors and both positive and negative impacts on the local communities. An assessment of the environmental impacts of tourism at the six sites completes the analysis.

Based on the deeper understanding of these impacts, the report goes on to make recommendations for reducing the environmental impacts of visitor numbers while maximising and spreading the economic and social benefits to the wider area. The report concludes with an action plan, detailing options and potential timeframes for implementing these recommendations.

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<sup>1</sup> Trevor and Trefor used interchangeably throughout this report.



The study drew on primary research, existing data, the strategic direction of the AONB and examples of best practice from further afield, to produce a series of practical recommendations and action plan designed to:

- Support sustainable growth and visitor management at the key sites, balancing visitor demand with environmental needs and the increased spread of social and economic benefits throughout the AONB and beyond.
- Spread economic benefits generated by visitors to the six sites.
- Promote the social wellbeing of local residents.
- Ensure responsible environmental practice at the six sites in line with their visitation capacity, and reduce negative impacts identified through the study.



# 1. Executive Summary

## Highlights

### **Economic Impacts**

- The six sites combined, accounted for an estimated £24.1m in direct expenditure by visitors in 2018. These sites therefore accounted for an estimated 19% of all tourist expenditure in rural Denbighshire in 2018.
- The estimated total of 449 FTE jobs supported by the expenditure of visitors to the six sites in 2018 was equivalent to 19% of all jobs from tourism in rural Denbighshire in 2018.

### **Social Impacts**

- Across all sites, almost 92% of survey participants agreed or strongly agreed that living in or near to the Clwydian Range and Dee Valley AONB is good for life in their community.
- AONB helped participants to relax, escape stress and find personal peace, so we arrive at a wellbeing value of £8.8m per annum.
- Visits to the AONB could lead to an estimated £733,000 of reduced health expenditure per year, made up of approximately £23,000 from reduced incidence of cardiovascular disease and £708,000 from reduced type-2 diabetes.

### **Environmental Impacts**

- We estimate the total cost of litter (including dog waste) and maintenance of paths to be approximately £34,400 per year for all six sites.
- We have estimated that the total value to the AONB's 1.13 million annual visitors of preserving the natural environment is £35.4 million per annum.

The Clwydian Range and Dee Valley Area of Outstanding Natural Beauty (AONB) forms the dramatic upland frontier of North Wales and includes the Pontcysyllte Aqueduct and Canal UNESCO World Heritage Site (WHS) and parts of the Offa's Dyke National Trail. Covering an area of 150sq miles (390sq km), from Prestatyn Hillside in the north to the North Berwyn and Dee Valley in the south, it is a dramatic combination of windswept hilltops, heather moorland, limestone crags and wooded valleys. The AONB also includes many rural villages and the towns of Llangollen and Corwen. Nearby, the towns of Ruthin,





## Environmental Impacts

- Generally, visitors did not perceive many significant adverse environmental impacts on their visits, and many expressed their appreciation of how well kept the sites were. This was borne out by external visitors' comparisons of the sites to other natural areas they had visited, based on two environmental issues: litter and erosion.
- Across the sites, the percentage of users considering the respective environmental impact to be about the same, somewhat better or much better than other natural areas was 92% for litter and 90% for erosion, with no significant divergence in views between local and other visitors on these issues.

However, local users and site managers observed and managed a number of negative environmental impacts on a daily basis at all six sites, principally:

- Litter, including dog waste. This represents a particular cost in terms of staff and disposal charges. We estimate the total cost for all six sites to be approximately £17,500 per year.
- Erosion and damage to vegetation, particularly at the more fragile sites such as Loggerheads, Panorama and Horseshoe Falls.
- Maintenance of paths at the sites is costly. We estimate the total cost for all six sites to be approximately £16,900 per year.
- Damage to livestock. It is difficult to put a figure on the cost of stock lost or injured to dog attacks, as this may manifest itself in the loss of the stock or unborn lambs, loss of value of the stock through injury, vets' bills and so on. However, records indicate that seven sheep were killed by dogs at Moel Famau in each of the last two years.

It is highly likely that the value of having a clean and non-eroded natural environment in the AONB overlaps with the wellbeing benefit that visitors obtain from that same area; however, it is difficult to say by how much the two sources of value overlap. For the purposes of this study, the two are treated as distinct.

- Drawing on definitions used in welfare economics, the wellbeing benefit that a visitor derives from the AONB is assumed to represent the use value of the area, while the value of keeping the AONB in pristine condition is assumed to represent its non-use value.
- We have estimated the value to the AONB's 1.13 million annual visitors, of preserving the natural environment, to be a total of £35.4 million per annum. This estimated valuation draws on recent research by Fields in Trust,<sup>17</sup> which used a survey of UK residents to determine how much the average person was willing to pay to preserve and maintain all parks and green spaces in their local authority area.



Some key findings of the research are:

## Visitor Profiles

- The six sites in the AONB attracted an estimated 1.1 million visitors in 2018. This total is a sum of the values for the individual sites. Some visitors may be counted two or more times if they visited more than one site.
- The majority of visitors are day-trippers with the exception of those visiting the WHS, where a higher proportion of visitors stayed overnight.
- A clear majority of visitors travel in family groups to most of the sites.
- The vast majority of visitors questioned come to the area to participate in and enjoy independent, non-commercialised activities, and particularly to participate in walks of varying lengths.

## Economic impacts

- The visitor survey found that the average daily expenditure per visitor (excluding accommodation) across the six sites was £13.34. This is broadly in line with visitor spend in comparable areas.
- Non-local visitors spent 54% more per day than locals in our survey.
- The difference in spending between non-local and local visitors differs considerably by season. During the high season, non-locals spent 131% more than locals did, whereas during the low season the difference was 32%.
- Local visitors spent 32% less during the high season than during the low season. On the other hand, non-locals spent 20% more during the high season than during the low season.
- We have estimated that the value of expenditure on rafting excursions at Horseshoe Falls and Llantysilio Green is approximately £2 million per year.
- The six sites combined accounted for an estimated £24.1m in direct expenditure by visitors in 2018. These sites therefore accounted for an estimated 19% of all tourist expenditure in rural Denbighshire in 2018.
- Using economic multipliers, we estimated that this £24.1m of direct expenditure at the six sites supported 365 FTE jobs and led to £7.8m in indirect expenditure by tourist businesses in their local supply chains, supporting a further 84 FTE jobs in 2018 (excluding spending on accommodation and excursions).



- The estimated total of 449 FTE jobs supported by the expenditure of visitors to the six sites in 2018 was equivalent to 19% of all jobs from tourism in rural Denbighshire in 2018.<sup>2</sup>

Table 1.1. Summary of gross economic contribution of visitors to the six sites (2018)

A	B	C	D	E	F	G
<b>Source/calculation:</b>	<b>AONB and Visit Wales data</b>	<b>Visitor survey data (2018)</b>	<b>Visitor survey data (2018)</b>	<b>Column C * Column D</b>	<b>Applying the STEAM multiplier to our estimated direct expenditure</b>	<b>Column E + Column F</b>
<i>All figures are per annum in 2018 prices</i>	Visitors (est.)	Visitor days (est.)	Expenditure per visitor day (our survey)	Estimated total direct expenditure	Estimated total indirect expenditure	Direct and indirect expenditure
Chirk Aqueduct and Viaduct	150,000	261,962	£13.65	£3,574,797	£1,160,234	£4,735,031
Loggerheads Country Park	234,580	409,673	£5.59	£2,290,187	£743,301	£3,033,488
Moel Famau Country Park	263,730	460,581	£10.09	£4,648,031	£1,508,561	£6,156,592
Panorama, near Llangollen	40,520	70,765	£15.94	£1,127,811	£366,041	£1,493,852
Pontcysyllte Aqueduct and Trevor Basin	330,083	576,461	£16.09	£9,273,469	£3,009,790	£12,283,259
The Horseshoe Falls and Llantysilio Green	115,000	200,837	£15.71	£3,156,015	£1,024,314	£4,180,329
<b>Total (six sites of interest)</b>	<b>1,133,913</b>	<b>1,980,279</b>		<b>£24,070,310</b>	<b>£7,812,242</b>	<b>£31,882,552</b>
<b>Total for rural Denbighshire as a whole</b>	<b>2,774,284</b>	<b>4,663,542</b>	<b>£27.23</b>	<b>£126,991,352</b>	<b>£41,216,220</b>	<b>£168,207,572</b>
<b>Estimated contribution of our six sites relative to the rural Denbighshire total</b>	<b>40.9%</b>	<b>42.5%</b>		<b>19.0%</b>	<b>19.0%</b>	<b>19.0%</b>

<sup>2</sup> Based on the total jobs figure reported in 2017 by STEAM, a model of the economic impact of tourism developed by Global Tourism Solutions (UK) Ltd.



## Social Impacts

- Visiting the Clwydian Range and Dee Valley AONB with its various green and blue spaces plays an important role for individual and community health and wellbeing. The cycling and walking paths provide an opportunity for many to increase their physical and social activity.
- There is a direct link between people's perception of wellbeing and measurable health outcomes. Further, there is ample evidence that spending time in nature and being active promotes physical and mental wellbeing, which in turn has implications for healthcare costs.
- Across all sites, almost 92% of survey participants agreed or strongly agreed that living in/ near the Clwydian Range and Dee Valley AONB is good for life in their community.
- Negative social impacts and their severity varied between sites. Traffic congestion and issues relating to parking are common concerns across all the busy sites, as is litter.
- Across the six sites, only 8% of the users surveyed considered the site they were visiting to have worse overcrowding than the other natural areas they had visited (with visitors from outside the area being more likely to hold this view, particularly in high season). This figure rose to 20% in relation to vehicle congestion.
- We were able to estimate that the improvement in life satisfaction that people derive from green spaces and parks equates to a wellbeing value of £8.47 per visit. When this valuation is applied to the estimated total number of annual visitors who stated that spending time in the AONB helped them to relax, escape stress and find personal peace, we arrive at a wellbeing value of £8.8m per annum.
- We can also place a monetary value on the health benefits that visitors derive from visiting the AONB. Our survey found that a large majority of visitors to the AONB went walking during their visit. 86% of respondents (204 people) stated that they had done some walking during their visit to the AONB. Like other forms of exercise, walking has a number of important health benefits, including reducing the risk of cardiovascular disease (CVD) and type-2 diabetes. By estimating the extent to which these two categories of risk are reduced, and using the typical cost of treating such health conditions, it is possible to put an approximate monetary value on the health benefits associated with walking while visiting the AONB.
- Our analysis suggests that during their time in the AONB, most people's physical activity amounts to the equivalent of one week of exercise, according to government guidelines. Therefore, we can estimate that visits to the AONB could lead to £733,000 in reduced health expenditure per year, made up of approximately £23,000 from reduced incidence of CVD and £708,000 from reduced incidence of type-2 diabetes.