Dorset's Environmental Economy

PLACING AN ECONOMIC VALUE ON THE DORSET AONB

December 2015

This report, by Ash Futures in association with Vallance Economics, was produced on behalf of the Dorset Council and the Dorset Area of Outstanding Natural Beauty (AONB) Partnership. It focuses on estimating the economic impact of the Dorset AONB on the wider Dorset area.

It is a stand-alone companion document to the broader report on Valuing Dorset's Environmental Economy. Although this report, in itself, provides a detailed analysis of the economic value of the Dorset AONB, it is better read in the context of the main report.

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INTRODUCTION

The Dorset AONB covers over 40% of Dorset and is the fifth largest in the family of 46 AONBs in UK. The Dorset AONB Partnership is made up of over 20 organisations which have an interest in conserving and enhancing the natural beauty of the AONB landscape. It encompasses high chalk escarpments, including a number of individual landmarks, such as hilltop earthworks. It also supports a wide range of habitats and associated species.

There is a general perception that the Dorset AONB has been beneficial to the wider area but there has been limited evidence. The difficulty of understanding the impact of the AONB status is related to the fact that it is spread over a large area, largely accessible, and is free and open to the public to use. Therefore capturing use and value is difficult. Given this relative lack of evidence, the AONB Partnership wanted to understand the benefits that have been felt by local residents, businesses and visitors.

In support of this report, a number of surveys were developed to understand impact from a primary research perspective. The survey findings form the basis of the subsequent estimates of impact. As with any such approach – especially across a dispersed area – there are significant margins of error in the estimates made. This is also heightened by limitations on the resource available to undertake the study. This report is part of a wider analysis on the importance of the Dorset environment, looking at a number of different factors.

However, given the level of survey responses received, there is some confidence that these estimates do ***robustly illustrate*** that the benefits accruing as a consequence of the Dorset AONB status are highly significant. A conservative and pragmatic approach has been adopted which demonstrates that impact.

Ash Futures
November 2015

EXECUTIVE SUMMARY

The headline result from the work undertaken in this report is that we estimate that the Dorset AONB influences circa £65mn of output in the wider Dorset area on an annual basis.

What cannot be said with certainty is how much of this estimate can be associated with the designation itself i.e. the 'Dorset AONB', or simply due to the existence of the outstanding landscape and natural beauty of the area. Given the positivity expressed in all of the surveys undertaken to support this work, it is highly likely that the existence of the AONB itself has helped to increase the scale of benefits to the area but it is difficult to identify the exact role the designation has played. As a result of the extensive survey work, we have reasonable confidence in assigning a significant proportion of the estimated impact to the AONB itself.

However, due to the Jurassic Coast and the Dorset AONB 'overlapping' in large parts of Dorset, it is equally important to recognise that it has been difficult to separate the impact of the Dorset AONB from the Jurassic Coast (as part of this overall work we have also undertaken a similar exercise for the Jurassic Coast). **Therefore, the estimate of economic impact, or influence, for the two designated areas should not simply be added together.** It is likely that there will be overlap in the estimates. For example, many visitors coming to the area will visit the protected landscape of the AONB, as well as the outstanding coastline of the Jurassic Coast. 'Attributing' visitor expenditure to one or the other designated areas is not possible at an aggregate level given the data which is available. This is a fundamental point to recognise when interpreting the estimates contained in the subsequent analysis.

The surveys highlight the positive view of the impact of the AONB designation held by visitors, businesses and residents. It shows that the quality of the Dorset environment is a key influence for people to visit the area. The business survey showed a demonstrable positive impact of the AONB status on businesses' performance.

The Dorset AONB has played an important role in helping to conserve and protect the landscape so that it continues to attract people to the area. The Dorset AONB team works closely with other organisations and private land owners to extract value from the designation through the leveraging additional funding.

The surveys indicate that the many businesses feel that the Dorset AONB significantly helps with wider branding/marketing of the area, and a large proportion of those businesses adopt the brand for their own purposes. Significant public investment has flowed into the area and, although difficult to quantify, much of this is associated with the protected landscape status.

Finally, the value that residents attach to the Dorset environment – expressed in the surveys as willingness-to-pay and much of it encompassing the Dorset AONB – appears relatively high, certainly greater than the current indirect cost they may currently contribute to its ongoing management. It is clear that residents highly value the contribution the Dorset environment makes to their own well-being. It is also clear that residents continue to value the largely free and open access currently afforded.

GENERAL APPROACH

To estimate the economic activity that relates to the Dorset AONB, it is appropriate to undertake a number of steps. Each step represents a different approach to estimating the economic activity that relates to the Dorset AONB and, importantly, each step progressively narrows that relationship between economic activity and the value of the designation itself. The four steps that form the structure of this section are:

Firstly, we make an estimate of all the economic activity that takes place within the defined Dorset Area of Outstanding Natural Beauty (AONB) area (see later comment on definition)

Secondly, following a similar methodology, and also following on from work done in the 'Definitions and Valuations' section of the main report (Dorset's Environmental Economy), we make an estimate of the economic activity in the Dorset AONB that relates to our definition (in terms of flows) of the environmental economy

Thirdly, we *illustrate* the economic activity (impact) that can be specifically associated with the existence of the assets that sit behind the Dorset AONB i.e. the outstanding countryside and preserved natural landscape

Finally, we focus on *illustrating* the value of the designation itself, understanding whether the AONB status has provided *specific* and *additional* stimulus over and above what would have been expected anyway.

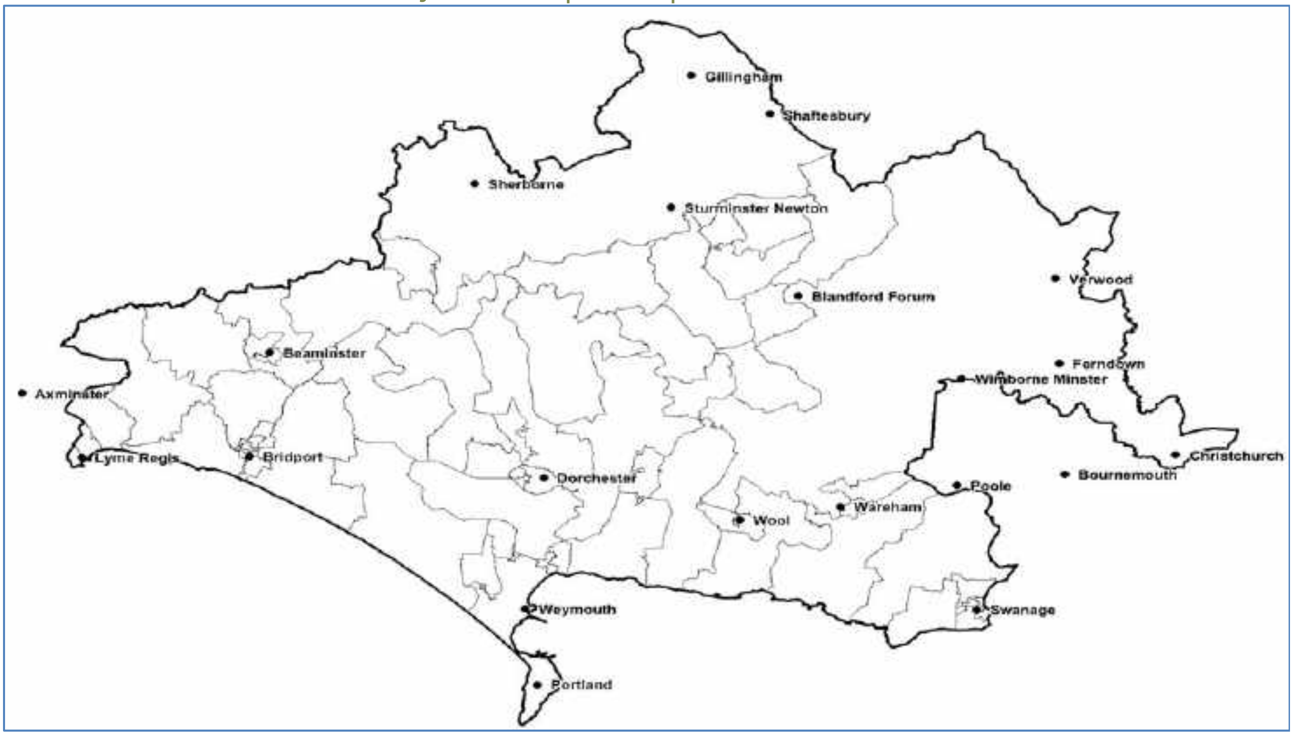
We address each of these steps in turn. Our expectation is that the value of economic activity will decrease with each step; each step effectively representing a sub-set of the previous estimate, although we recognise the influence of the Dorset AONB may extend beyond the its defined boundary.

Valuation of all economic activity that takes place within the Dorset AONB

The first step in our overall approach is to estimate the extent of economic activity that takes place within the Dorset AONB. Whilst we principally focus on the defined AONB area itself, we also recognise that it could 'understate' the true area of influence that the Dorset AONB may have. For example, many visitors who come to enjoy the protected landscape may stay outside of its boundaries. However, this step simply reflects the economic activity that takes place *within* the Dorset AONB.

Our analysis is based on a definition of the Dorset AONB built on Lower Super Output Areas (LSOAs). LSOAs act as a geographical statistical block, and allow us to build a data profile of the area. This defined area is set out in the below map.

The Dorset AONB as defined by Lower Super Output Areas (LSOAs)



In terms of estimating economic activity that takes place within the AONB[1] we use employment share as a proxy. That is, we estimate the number of jobs that are contained within the Dorset AONB and then pro rata this against the wider area for which economic output data is available. For the Dorset AONB this needs to be set against Dorset[2]. We then use that proportional employment share to estimate the proportion of total economic output (Gross Value Added) relating to the Dorset AONB.

There are some important issues that are useful to recognise:

- Effectively this assumes that productivity levels are constant across all of the respective areas i.e. a job is equally productive in the Dorset AONB as it is in the wider area. Given that the AONB area represents a relatively large proportion of the total wider area (i.e. the AONB covering 42% of the County), then it could be argued this is a reasonable assumption. It is probable that productivity levels are higher in the major towns i.e. Dorchester, than in the most rural areas. This will be partly due to sector differences and partly due to scale,

[1] From this point onwards we may occasionally use the general term AONB to refer to the Dorset AONB.

[2] Dorset in this context means the area covered by Dorset Council i.e. excluding the other unitary authorities in Bournemouth & Poole.

connectivity and competition. However, without town-level productivity data being available then assuming that productivity levels are constant across the whole area is a pragmatic position to assume.

- On a related matter, the approach does not account for any sector differences i.e. there may be a higher representation of a highly productive sector that sits outside the Dorset AONB area. The approach effectively assumes that the Dorset AONB has its proportional 'share' of all sectors. Again, the extent of the AONB area partially addresses this but we need to recognise there are some highly productive clusters that exist elsewhere i.e. the aerospace/ advanced engineering cluster around Christchurch and East Dorset. However, making adjustments at a sector-level across small geographical boundaries is a complex exercise – and also introduces further uncertainties – and we again assume a workable approach in the context of the overall report.

  It is likely that the above points relating productivity and sectors (in themselves intertwined) are likely to introduce an element of positive bias in our estimates. In that respect, our estimates in this section should be viewed at the top end of a likely range.

- By making a further adjustment to reflect the proportion of land area of the Lower Super Output Areas (LSOAs) within the Dorset AONB, we are effectively assuming that employment is equally 'shared' on a geographical basis. Clearly that will not be the case. However, by making this adjustment on an aggregated basis i.e. across all the LSOAs, then it is reasonable to expect the impact of this on an individual LSOA basis may even itself out.

We have accessed data from the Office of National Statistics[3] in relation to job numbers. This data can be accessed at an LSOA level and therefore we have been able to build an employment profile for the Dorset AONB area. To address volatility in the data – given that it is survey based and volatility will increase the lower the geographical entity – we have taken a 5-year average (2009-2014).

To corroborate this 'employment-led' approach, we have also retrieved population data for the Dorset AONB and set them in the context of the population of the wider area. They do closely correspond - for the Dorset AONB its population was circa 26% of the Dorset population – compared to 26.5% of jobs. Therefore we have confidence in using employment share as a reasonable proxy for economic activity.

We then make an adjustment for the proportion of land that falls within the defined LSOAs. For the Dorset AONB, 73% of the land areas of the defined LSOAs are within its boundary[4]. This is then placed in the context of the estimated economic output of the wider Dorset area. The latest available data relates to 2013.

Following this approach, we estimate that *total economic activity (output)* within the Dorset AONB equates to circa £1.47bn (2013 prices). Expressed in current prices the equivalent figure is **£1.55bn**[5]. This represents our estimate of the *total* value of economic activity that takes place within the Dorset AONB and should be viewed as the *flow* of economic activity (GVA/output) on an *annual* basis. To reiterate, this does not represent the value of the designation itself (which we address later). It does show, however, that significant levels of economic activity take place within the Dorset AONB and the area has an important economic role to play.

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[3] Business Register and Employment Survey 2014

[4] We recognise that this adjustment effectively assumes that population is evenly distributed across each LSOA. This will not be the case for some LSOAs but feel the assumption is valid across a wide number of LSOAs.

[5] We have adjusted using national GDP deflators, utilising Q1 2015 figures to estimate a forecast figure for 2015.

It is fundamental to note that as part of the overall report we have also undertaken a similar exercise for the Jurassic Coast, using the same approach. The two estimates should not simply be added together, given that the two designated areas overlap through a large part of Dorset. There are also areas where the two designated areas do not overlap - the Dorset AONB estimate will contain economic activity inland from those coastal areas, whilst the Jurassic Coast estimate will include activity to the eastern Dorset coastal corridor as well as into East Devon.

This 'overlap' affects many subsequent estimates in this section of the report. However, we attempt to address this issue by looking at those areas where the designated areas overlap and by taking account of the 'overlapped' areas. By doing so, we can make an estimate of the combined impact of the two designated areas and, where appropriate, we highlight this elsewhere in the document. It should be noted however that this exercise has less 'weight' in our approach than understanding the two areas as separate entities.

In employment terms, we estimate that approximately 30,900 people work within the Dorset AONB. This is significantly lower than found for the Jurassic Coast, reflecting the AONB's rurality and the fact that most of the major coastal towns (centres of employment) along the Jurassic Coast are outside of the AONB area.[6]

In terms of assessing the combined value of economic activity (output) for the Jurassic Coast and Dorset AONB i.e. by excluding those areas where the AONB and Jurassic Coast overlap, we estimate that economic output equates to circa £2.9bn (2013 prices), or £3.0bn in current prices[7]. 63,400 jobs are sustained in the combined area. In effect, this represents the value of economic activity in the Dorset AONB plus those areas of the Jurassic Coast that sit outside the AONB i.e. the eastern Dorset coastal corridor and East Devon This combined figure represents economic activity in both Dorset and East Devon. This estimate is broadly comparable to estimates of the economic output in the South Downs National Park[8].

However, if we separate out those areas of the Jurassic Coast within East Devon (as well as those areas in Dorset where the AONB and Jurassic Coast overlap) we estimate that economic activity equates to £2.4bn (2013 prices), or £2.55bn in current prices. To place this into context, ***this broadly represents one-third (32%) of total economic activity within Dorset*** (excluding Bournemouth & Poole).

In summary, the combined designated areas represent a significant component of the overall Dorset economy. This is an important conclusion. As well as being fundamental in their role as high quality and beautiful landscapes, the businesses they help support are important role for the health of the wider Dorset economy.

[6] This figure will be an underestimate because the BRES dataset used does not contain self-employment. However, our use of BRES has been driven by the availability of data at a LSOA level. Employment data (including self-employment) is available via the ONS' Annual Population Survey but is not available at an LSOA level – therefore difficult to relate to the designations as defined by LSOAs.

[7] Our approach effectively excludes the area of the Jurassic Coast that lies within the Dorset AONB. Therefore a relatively high proportion of our estimate for the economic activity that lies within the Jurassic Coast is 'excluded'.

[8] 'Valuing England's National Parks' – National Parks England - 2013

Valuation of the environmental economy within the Dorset AONB

The Definitions and Valuations section of the main report contains our estimate of the value of the environmental economy within Dorset, Bournemouth and Poole. By using an employment-share approach specific to our definition of the environmental economy, we can also begin to understand whether there is a greater concentration of that environmental economy in the Dorset AONB.

To estimate this we have retrieved the number of jobs in those sectors within our definition of the environmental economy – therefore a narrower exercise than the whole economy approach in step 1. Again, we use a 5-year average to address volatility (which is slightly more marked because we are looking at relatively small sectors in some cases)[9].

What is of interest is that the environmental economy, on a proportional basis, does seem to be more concentrated in the Dorset AONB than seen for the economy as a whole. Whilst employment in the Dorset AONB represented circa 19% of total employment in Dorset, it contains 32% of the jobs in the wider Dorset environmental economy (this does not include Bournemouth & Poole). Perhaps this is not surprising given that some sectors in our definition are intrinsically rural; but also important to recognise that many others are not necessarily rural/land based. The conclusion is that the Dorset AONB plays an important role in the wider environmental economy and any wider policy focus on developing the environmental economy within Dorset (and the wider LEP area) should certainly include supporting its development within the Dorset AONB.

We estimate that between 3,300 & 4,200[10] environmental economy jobs are contained within the Dorset AONB. The range is a representation of our narrow and wide definition as adopted in Definitions and Valuations section of the main report. We estimate that the environmental economy within the Dorset AONB is worth circa £183mn-£189mn in current (2015) prices[11]. It is worth highlighting that this estimate represents the direct impact of the environmental economy, and does not include the subsequent indirect impact (referring to Definitions and Valuations section of the main report about the scale of that indirect element). Again, it is worthwhile reiterating the earlier point. These estimates should not be viewed as separate to a similar estimate we make for the Jurassic Coast, given the geographical overlap between the two areas.

Again, by accounting for the overlap between the two designated areas, we can also estimate the value of environmental economy within the combined area. We estimate that economic activity relating to the environmental economy in the combined area equates to a range of circa £337mn-£371mn in current prices. In terms of jobs, we estimate that between 6,300 jobs and 8,400 jobs are sustained in the environmental economy in the combined area. In broad terms, 40% of the environmental economy (which encapsulates Dorset, Bournemouth and Poole) – as per our definition – is contained within the combined area.

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[9] BRES data can only be accessed as long as the disclosure requirements of the dataset are met. We are able to use BRES data for this work because we aggregate the data in terms of both geography and sector and therefore meet those disclosure requirements.

[10] After adjusting for the proportion of energy generation and the restaurant sector that we have apportioned to the environmental economy.

[11] A 'quirk' of this approach is that the range between the narrow and wider definition of the environmental economy is relatively narrow. The explanation for this is that the employment share of the AONB for the wider definition is lower than the narrow definition (principally due to a smaller restaurant sector), so whilst the wider definition has a higher estimate in terms of economic output this is partially negated by the lower employment share.

Valuation of the economic activity influenced by the quality of the environmental assets of Dorset and specifically the Dorset AONB

The difficulty with understanding the economic value of the wider Dorset environment and, specifically, the Dorset AONB is that they are effectively 'public goods'. That is, they are open and free for anyone to access[12] and understanding the volume and value of use (by residents, visitors and/or businesses) is difficult to capture. Landscape is an archetypal 'public good', delivering services to the public at large through the ecosystems of which it is a constituent part. It is seen as a public good because these services cannot be delivered exclusively to individuals: everybody receives the value, and no-one's enjoyment need reduce someone else's. The absence of any sort of market valuation is a problem for policy formulation (and for economic impact assessments such as this report).

A further complication is that we do not know the 'influence' that those environmental assets have upon people's choices or their economic behaviour. Therefore we have needed to undertake primary research to inform our approach.

To understand the role that the quality of the Dorset environment and the designated areas has on economic activity within the wider area, primary research has been undertaken in the form of surveys. Those surveys have asked respondents to give their views on the importance of the local environment in their decision-making and general well-being. The surveys undertaken were:

- Visitor survey – a visitor survey was undertaken focusing on visitor's views of the Dorset AONB. The survey questioned those who responded on the influence of the environmental assets (protected landscape) on their decision to visit the area, and also interrogated their willingness-to-pay. The surveys were undertaken on a face-to-face basis at a number of sites in each area, the aim being to get a wide profile of visitor types. In total, 49 surveys were completed within the AONB. A further 149 surveys were completed for the same exercise for the Jurassic Coast and, where appropriate, we combine the findings to ensure a greater level of statistical robustness. The confidence interval associated with the visitor survey responses equates to +/-7% at a 95% confidence level[13].
- Resident survey – an online resident survey was undertaken in Dorset focusing on people's views on the importance of the environment on their well-being, decision to live in Dorset and the monetary value they attach to accessing those environmental assets. The survey did not focus specifically on the Dorset AONB but did ask how frequently they accessed/enjoyed the different aspects of Dorset's environment. In total, 480 surveys were completed in Dorset and the survey invitation was done on a randomised basis. Based on an assumption that only one person answered per household[14] then there is a +/-4.7% at a 95% confidence level[15]. We utilise this confidence interval in our analysis regarding range of estimates. A map of the residents responses in Dorset are contained in the appendices, this shows that a good proportion of residents who responded to the survey were located in/near the Dorset AONB area.

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[12] Effectively the attributes of public goods being non-excludability (cannot stop someone from benefiting from that good) and non-rivalry (one person's enjoyment does not preclude another's).

[13] This is based on the circa 8mn trips (domestic, overseas and day visits) that we estimate are made in the defined Jurassic Coast/AONB areas.

[14] Those who responded to the survey were asked their postcode location. We have analysed the responses and there are relatively few duplicates – therefore suggesting that only one person answered per household. If more than one person in a household responded to the survey then the numbers are negligible.

[15] Based on 185,000 households in Dorset (2015 estimate - CLG)

- Business survey – an online business survey was undertaking focusing on business's view on the importance of a high quality environment, and each of the designated areas (AONB and Jurassic Coast), on their development/performance. Questions also looked at whether they utilised the Dorset AONB brand in promoting their business, and whether additional visitor numbers had a positive revenue impact. Businesses were also asked about any negative impacts the Dorset AONB designation may have had on their business. In total, 155 surveys were completed and the survey invitation was done on a randomised basis. Businesses in both Dorset and East Devon were invited to give their views and there was therefore a slightly greater emphasis on the Jurassic Coast. A map of the businesses who responded to the survey is included later in the report.

The key consistent factor in all of the surveys was an understanding of importance of Dorset's environmental quality in decision-making, and an attempt at understanding the value that people/businesses attach to accessing that environment. Implicit in the responses is that this is value over and above its use value. The principal mechanism for this valuation exercise was willingness-to-pay and, whilst we recognise its limitations, we felt that it was the best approach to understanding the intrinsic value that could be attached to the environment in general, and the Dorset AONB specifically.

Intrinsic value of Dorset's environment

As discussed previously in this report, the environment has many functions to society, namely production processes, amenity and ecosystem or natural system services. These functions are therefore valuable to society and can be reflected in monetary terms and in non-monetary terms. These functions provide people with utility and can have value. The economic value of an environmental asset can be thought of as the change in utility if the asset is increased or decreased by a given amount. The total economic value of these changes is the sum of all the values and benefits gained.

Total Economic Value = Use Value + Passive Use Value + Option Values + Indirect Values

Where:

Use Values	= the direct use of a resource, either consumptive or non-consumptive
Passive use values	= existence (the resource exists with no actual or planned use) bequest (the resource is available for future generations) and altruistic values (the resource exists to be used by others in the present)
Option values	= the future demand or supply of the resource
Indirect values	= the functional value of the resource

Therefore the values that people attach to the environment have many different strands and encapsulate value above simple use values. The difficulty is that use values tend to be the easiest to measure – albeit far from easy themselves.

Placing a value on all of the above factors is a difficult exercise and has been attempted in numerous previous research studies. These have tended to use different techniques, particularly focusing on the 'use values'. Estimating the 'use value' of access has been primarily done through the application of two main types of economic valuation techniques:

- Stated preference methods – such as the contingent valuation (CV) and choice experiment (CE) methods which use surveys to ask recreational users directly about their willingness to pay (WTP) for access;

- Revealed preference methods – such as the travel cost method – estimate the WTP for visits to the environment by observing the costs (time and travel costs) of users. The assumption is that the cost that people are willing to pay for accessing that environmental asset broadly equates to the benefit/value they attach to environmental asset.

These methods are used to estimate the 'consumer surplus' derived from those visits – i.e. the value of the benefit to the resident/visitor over and above the cost of making that visit. Stated preference methods directly ask recreational users their willingness to pay to visit, while the travel cost method observes the costs incurred by visitors and use this information to construct a demand curve for environmental access, estimating consumer surplus from this. The travel cost method has the advantage that it is based on actual behaviour rather than hypothetical willingness to pay questions. On the other hand, stated preference techniques, because of their hypothetical nature, can be used to capture non-use values (e.g. benefits derived from existence of biodiversity) as well as use values, though care may be needed in interpreting the inter-relationships between these different types of value.

Given the relatively limited resource and scope for this study then it has not been possible to undertake a revealed preference estimate in a robust manner. Our approach has primarily been focused on using the above surveys to understand valuation based on a stated preference technique (willingness-to-pay). It is important to note that given the questions in the survey focus on valuing *access*, then the responses primarily reflect a 'use value'. However, it is possible that responses will also implicitly reflect individuals' views on passive use values i.e. the importance of the environment (of the Dorset AONB) just being there for the enjoyment of everyone, even if not directly enjoyed by the individual themselves. Analysis of responses from the survey certainly indicates that many people view the Dorset AONB as a 'public' asset that should be maintained for the enjoyment of everybody.

Case study: Activate Performing Arts

Set up almost 24 years ago, and covering the whole of Dorset and beyond from its base in Dorchester, **Activate** are a major outdoor performing arts company. As such their link to the Dorset environment is a profound one. **Activate** are a substantial local third sector organisation - employing six permanent and up to 230 freelance staff throughout the year, and operating a turnover of about £500,000 a year.


Alastair Nesbit

The links with the AONB began ten years ago when **Activate** were launching their first large scale outdoor festival. They were supported in presenting a special commission on Hambeldon Hill, which led to a greater awareness of other special landscapes in the AONB area. Soon after, they joined the AONB's landscape partnership - and got involved in developing the South Dorset Ridgeway. With the active help of the AONB, **Activate** has worked closely with farmers, landowners, wildlife organisations and artists to create a new arts trail on the Ridgeway, for the 2014 Inside Out Festival.

The relationship has grown stronger as they now work closely with Dorset AONB in planning new festivals in Dorset and around the country. Their mission to create extraordinary events in extraordinary landscapes works well in the Dorset context.

Kate Wood, the Executive Director, of **Activate** is full of praise for the AONB. "Dorset AONB has a team of exceptional people that has made working in the landscape possible and who have introduced us to specialists who have helped us to understand the archaeology, the history, geography and the wildlife. We have learned how to work with it and know how to invite our audiences into the landscape to experience art work that responds to the Dorset landscape."

Values attached to accessing and enjoying the environment will obviously represent an individual's decision and/or circumstance. Factors that will be reflected in any valuation will include site characteristics (e.g. proximity of the site, available facilities and accessibility), socio-economic circumstances and the availability of substitutes. However, by obtaining extensive responses and a wide profile of responses from the surveys we hope that these differences will 'average' out.

Previous research

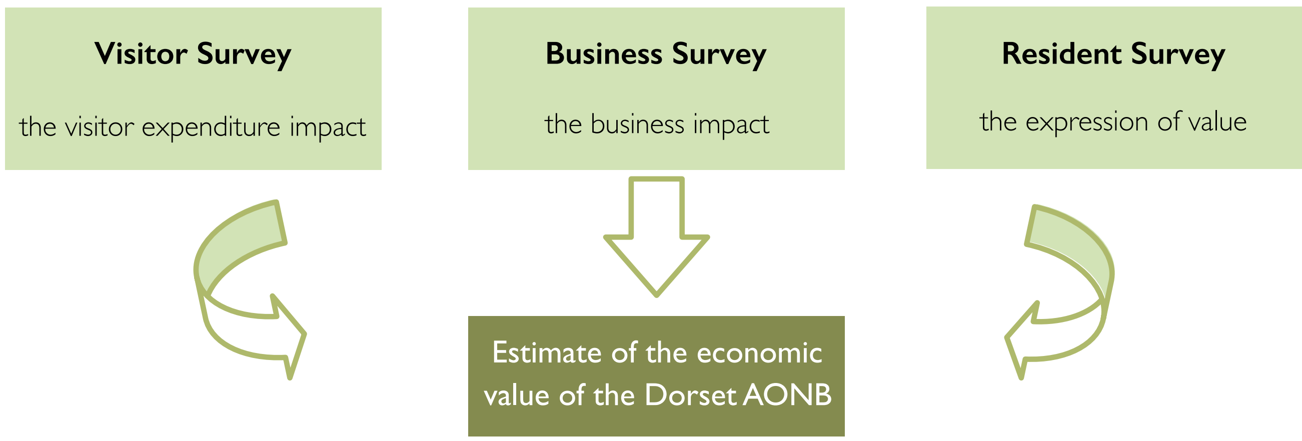
It is worthwhile briefly highlighting previous studies that have estimated use values through stated preference techniques. There is a wide range of literature available on the subject, although these have been usefully summarised in a relatively recent publication by Natural England[16]. Although there is a significant variation in use values for all types of environmental access, it is possible to identify a range of values for certain activities. For instance, there is general consistency in the literature with regard to woodland/forest recreation values, with evidence suggesting that typical values per visit are likely to fall between £1 and £5.50 per visit (2011 prices). The evidence suggests that per visit recreational use values are potentially higher for coastal sites than for more general visits to the countryside. One study identified a conservative range of use values for water-based recreation, including visits to the beach, of £11 to £20 per trip (2011 prices).

The available evidence seems to suggest that visits to the coast tend to involve greater levels of visitor expenditure per trip than visits to the countryside. The vast majority of this spent on food and drink. Therefore it is important to note a fundamental distinction with the primary survey work undertaken for this work. We have asked people the value they attach to accessing the environment, rather than expenditure when they are there. The above figure includes ancillary expenditure (partly explaining the higher figure) and does not solely focus on the use or non-use values.

These estimates can be broadly corroborated against other similar work. For example, a report to UK National Ecosystem Assessment[17] developed and applied a meta-analysis model to estimate the value of visits to a new woodland site in the UK. They estimated a mean WTP of £3.20 per visitor per trip. Therefore our estimate of the WTP through our survey work broadly corresponds to studies undertaken elsewhere (see our WTP analysis of survey responses). A key part of our analysis is to place these (national) estimates in the context of our survey responses focusing on Dorset, and specifically the Dorset AONB.

Approach to estimating value

Our approach to estimating the value attached to the Dorset environment, and specifically to the Dorset AONB, is based on 'triangulating' estimates from the responses we receive though the surveys undertaken. Where appropriate we combine the survey responses with other available data to derive our estimates.



[16] *'Costs and benefits of public access to the countryside – literature review' – Natural England - 2013*

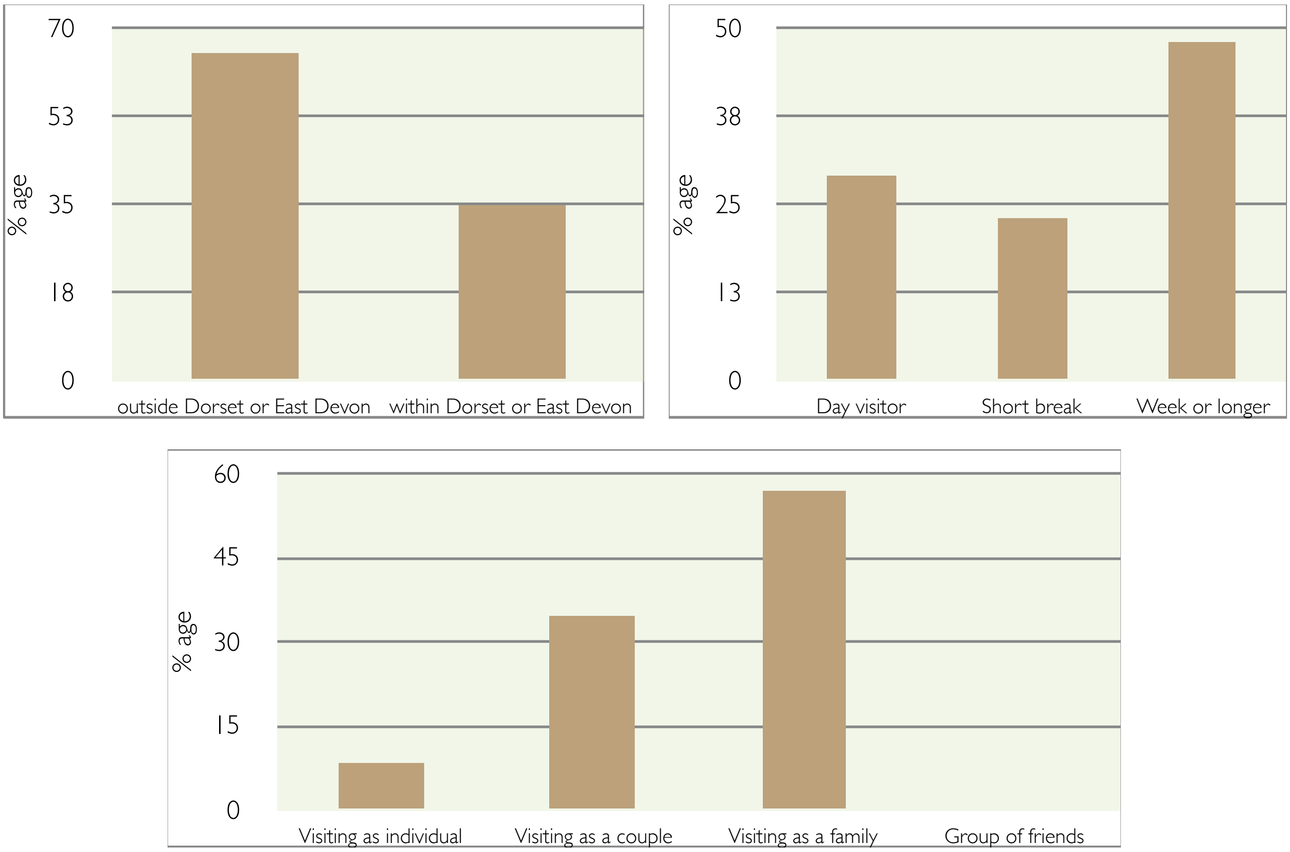
[17] *'Economic analysis for the UK National Ecosystem Assessment: Synthesis and Scenario Valuation of Changes in Ecosystem Services' – Bateman et al - 2013*

The visitor 'expenditure impact':

This work also wanted to understand the impact that the quality of the environmental assets within Dorset (focusing predominantly on its countryside and coast) had upon visitors to the area. To inform this we undertook a visitor survey, as outlined above. As previously stated, we received 49 responses to the survey undertaken in the Dorset AONB[18].

The majority (65%) of those who responded to the Dorset AONB visitor survey were visiting from outside of either Dorset or East Devon, and most (71%) were either on a short break of visiting for a week or longer – the remainder being day visitors. The majority were visiting as either a couple or as a family[19]. The type family unit is an important to note. As discussed below, the survey asked people to place a theoretical value on accessing the Dorset AONB in the absence of free and open entry. It is not clear whether people answered on an individual basis, or in terms of the value of access for the wider family. This has implications for how we view their response.

Charts 1: Dorset AONB visitor survey profile



The three key issues that we wanted to identify in the visitor surveys was:

a) the influence of different aspects of Dorset's environment in attracting people to the area,

b) the influence of the Dorset AONB in their decision to visit the area,

c) how much they would theoretically be willing to pay to access the Dorset AONB in the absence of public support.

[18] *We also received 49 responses specifically looking at the AONB. On occasion these surveys took place in the same location – notably Seatown.*

[19] *The survey gave them the option of 'visiting as family including children', although some people did respond that they were visiting as a family without children.*

a) The influence of different aspects of the Dorset environment in attracting people to the area

In terms of understanding what aspects of the Dorset environment influenced people to visit the area, it is clear from the Dorset AONB visitor survey (and also the survey undertaken for the Jurassic Coast) that the environment is the key factor in attracting people to the area. Visitors were asked to score certain factors on a scale of 0-100 in terms of how important they were in influencing their visit to the area. The chart below shows that the natural environment in general, and the coast and beaches in particular were the primary factors for their visit. The scores on the chart reflect the average response across those who responded to the survey. Immediately we can begin to build a picture of how important the Dorset environment is in attracting people to the area, and that the coast and landscape is also a key determinant in that overall picture.

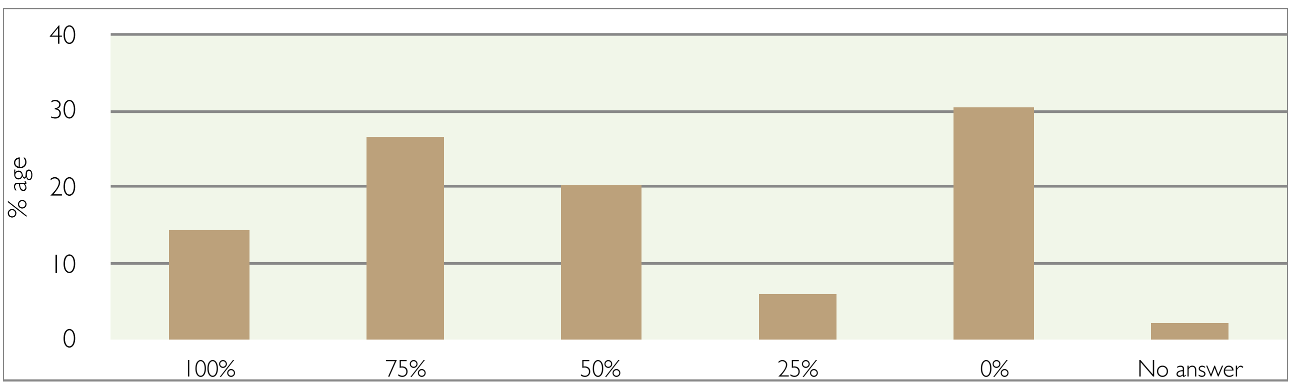
Chart 2: Factors influencing visitors to visit Dorset

b) The influence of the Dorset AONB in their decision to visit the area:

It was also important to understand the specific role that visiting the Dorset AONB may have played in people's decision to visit and holiday in the areas.

Visitors were specifically asked *"How much was the AONB status an influence on your choice to visit the area?"* Respondents were given a choice of options between 'wholly influenced (100%)' to 'did not influence (0%)'.

Chart 3: The extent of the Dorset AONB influence on visiting the wider area



The chart shows that broadly two-thirds (62%) of people stated that visiting the Dorset AONB was partly, greatly, or wholly the reason why they visited the wider area. 31% of people said that it did not play any role in influencing their decision. Over the survey sample, the 'average' response (47% 'influenced') equated to 'partly' playing a role in attracting them to the area. We use this figure in our subsequent analysis.

c) Willingness-to-pay to access the Dorset AONB in the absence of public support.

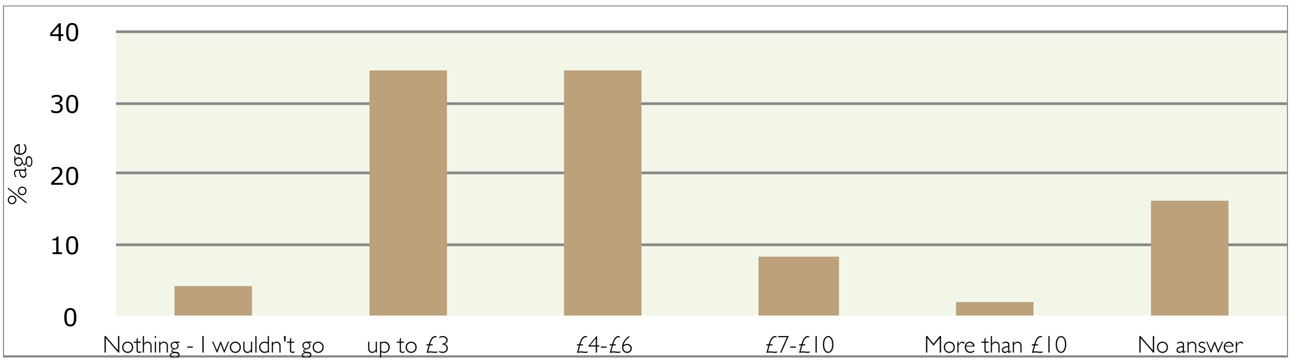
Visitors were also asked to answer the theoretical question about their willingness-to-pay to visit the Dorset AONB in the absence of public support. The specific question was *"How much is the Dorset AONB worth? This is a theoretical question. If you had to pay to be able to use the AONB (to help preserve and manage all its aspects – woodland, paths, monuments, habitats, coastline etc.) what would be a reasonable price to pay per visit? Or for annual access?* They were given a range of banded options.

The most prevalent answer was that they would be willing-to-pay either 'up to £3' or £4-£6. Over half (54%) of people said they would be willing to pay more than £4 per visit. Only two people stated that they would not be prepared to pay anything to access the Dorset AONB if it were not freely accessible. Again, we are able to calculate the 'average' response, equating to £4.51[20]. We have taken confidence that this broadly matches the findings of similar studies taken elsewhere, as previously highlighted.

Given the fact that there were relatively few responses to the Dorset AONB visitor survey then the confidence intervals (at a 95% confidence level) associated with this estimate are relatively wide. However, the typical responses received from both the Jurassic Coast and AONB visitor survey closely matched and therefore our view is that the visitor survey responses should be considered in aggregate. On that basis, the confidence interval associated with our estimates is +/-7% at a 95% confidence level[21].

The WTP findings in terms of annual access need to be treated with some care, not least because those surveyed would have found it difficult to conceptualise how many times they would access the Dorset AONB. Therefore placing an 'annual' value – when they may not visit Dorset again that year – was a difficult exercise and the results do not exactly correspond to the per visit value i.e. whilst 5% people who answered the question said they would not pay anything on a per visit basis, this increased to 12% people for annual access.

Chart 4: Willingness-to-pay for access by visitors to the Dorset AONB



[20] *To calculate the average – and because people were given banded options – we attach values to each band. We attach a zero value to those who stated that they would pay nothing, £3 to the 'up to £3' option, £5 (mid-point) for the £4-£6 option, £8.50 (mid-point) for the £7-£10 option, and £15 for the 'more than £10' option. For the latter, this is a pragmatic figure to apply – given that too high a figure would skew the figures.*

[21] *This is based on a whole population of circa 8.2mn visitors to those districts most closely associated with the Dorset AONB and Jurassic Coast.*

Estimating the visitor expenditure impact of the Dorset AONB

The responses to the visitor survey provide us with an *illustrative* basis in terms of understanding the *volume* of visitors and the *value* of their expenditure that has been *influenced* by the landscape of the Dorset AONB. As with most approaches that utilise survey data, we effectively assume that the responses to the visitor survey are representative of the views of a wider population i.e. the whole visitor population within the defined geographical market.

The key survey response that we utilise in our approach is the *extent of influence* the Dorset AONB has in terms of encouraging people to visit the wider (Dorset) area. Our estimate of the average 'influence' is then combined with data that estimates the volume and value of tourism in the area to provide an estimate of the proportion of tourism expenditure that can be claimed to be influenced by the attraction of the Dorset AONB. This is then converted to GVA to be consistent with our measurements contained elsewhere in the report.

The overriding assumption in our approach is that the average level of influence stated by survey respondents directly links through to the proportion of total visitor expenditure in the area surrounding the Dorset AONB[22]. Clearly, there are limitations in this assumption. Not least, because those who were surveyed were visiting locations within the Dorset AONB at the time. Surveying did not take place in locations further afield. Therefore it is likely there will be some 'selection bias' in the survey responses and care is required in interpretation.

To counter this potential bias we base our estimates on a relatively tight geographical focus – those districts where the Dorset AONB is predominantly located and the specific areas that are within the defined area. We effectively take a proportion of the estimated visitor expenditure in the wider area. By limiting the geographical focus i.e. excluding visitor spend in, say, Weymouth completely (some of which will have been influenced by people visiting the Dorset AONB) partially negates the bias that will be inherent in the survey responses. It may be that this more than compensates for the potential selection bias.

However, we take confidence in the fact that the typical level of influence found in the Dorset AONB visitor survey corresponded to the findings in the Jurassic Coast visitor survey. Over the whole visitor survey exercise (from both the AONB and Jurassic Coast – circa 200 survey responses) broadly the same levels of influence and WTP were found.

We have used a pragmatic and workable approach. We have managed to gain a workable level of statistical robustness by looking at these factors in an aggregate sense.

The visitor expenditure is taken from data produced on behalf of the Dorset Tourism Partnership, and is based on data from statistics produced by VisitBritain[23] including the International Passenger Survey and the Great Britain Tourism Survey. Visitor expenditure is divided into that which is associated with domestic overnight trips, overseas trips and day visits. The data is available at a district level within Dorset. By accounting for the proportion of that visitor expenditure within the designated area i.e. in West Dorset 70% of visitor expenditure is captured; it then forms the context for understanding the potential visitor expenditure that could have been influenced by the Dorset AONB. In summary, we focus mostly on visitor expenditure in Purbeck, West Dorset, Weymouth & Portland and North Dorset.

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[22] We have used visitor expenditure data at a district level as our base data. We then adjust for the proportion of that visitor expenditure that more closely relates to our defined area. To reflect that more visitor activity would be concentrated in more populated areas in each district we have used a hybrid of the proportion of land and population to represent the Dorset AONB influence.

[23] 'The Economic Impact of Dorset's Visitor Economy 2013' – South West Research Company Ltd – November 2014

By using our findings from the visitor survey – in terms of the level of influence that the Dorset AONB had in encouraging those people to visit (and spend) in the wider Dorset area – we are able to estimate the level of total expenditure underpinned by the Dorset AONB.

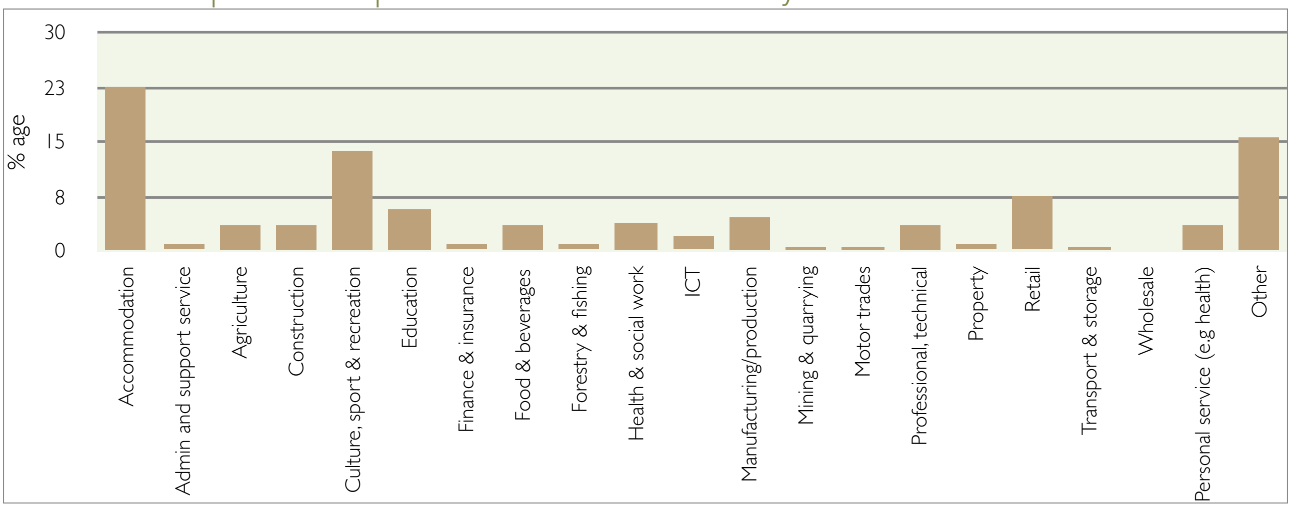
Our estimate is that the Dorset AONB **influences circa £67mn in value added** from visitor expenditure per annum at current prices. This is expressed as Gross Value Added to be consistent with our measurements elsewhere. Because the number of visitor surveys was relatively small compared to the whole population (estimated number of visitors to the defined area) then the confidence intervals are relatively wide. However, as stated previously, because the responses across both the AONB and Jurassic Coast broadly match then considering the visitor survey in aggregate is appropriate and defensible. On that basis there is a confidence interval of +/-7.02% at 95% confidence level. Using this to inform the uncertainty inherent in this approach gives **a range of £62mn to £71mn**[24].

Impact on businesses

As part of the overall approach to understanding the economic impact of the Dorset AONB, it was important to also gain an understanding of businesses' views on the role that the Dorset AONB had on their operations/performance. This was primarily informed by a business survey, as well as a limited set of consultations directly with businesses.

It is an important part of the process of gaining confidence in our overall approach to place our estimates of impact from the business survey against earlier estimates of impact based on visitor expenditure. It is important to note that the impact estimates should not be viewed as separate, many of the businesses who responded to the survey will have benefited from the additional visitor expenditure and, in part, the benefits will already be reflected in the earlier visitor expenditure benefits. The profile of those who responded to the business survey show that the majority (although certainly not all) are in sectors that are heavily dependent upon visitor expenditure (accommodation, recreation and retail). This may reflect that whilst the survey was randomly sent out to a wide population using a business database, the responses may have some 'selection bias' i.e. those with a vested interest may have responded. Again, it is important to bear that in mind when interpreting the subsequent analysis. The chart below shows the sector breakdown of the businesses who responded to the survey.

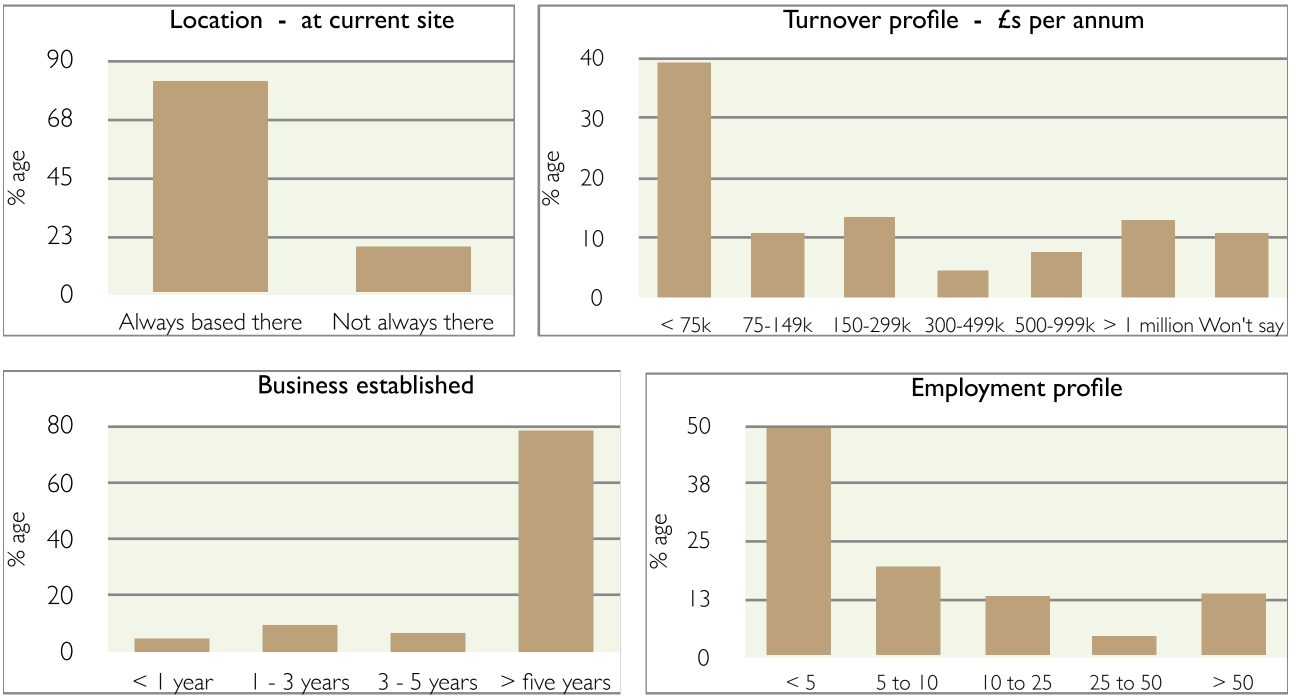
Chart 5: Sector profile of respondents to the business survey



[24] *We recognise that in reality the confidence interval associated with this estimate will be wider due to the fact that the visitor expenditure information that we use is also a survey-based estimate. Therefore it will also have its 'own' margin of error which isn't reflected in our range. However, there is also the counter argument that because the level of influence is the same as found in the Jurassic Coast survey then the survey sample could be viewed as larger and therefore confidence intervals would be lower.*

The majority of those businesses that responded to the survey were small – reflecting the dominance of SMEs in the local economy – but there was also a reasonable number of responses from those larger businesses (turnover >£1mn and/or more than 50 employees). The majority of businesses had been established for more than 5 years and had always been based at their current site.

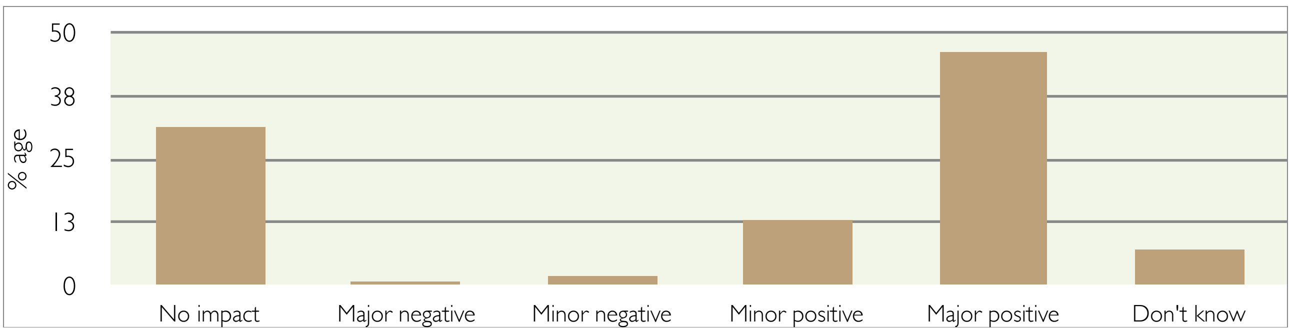
Chart 6: Business survey profile



It is clear that business awareness of the Dorset AONB is extremely high. 97% of the businesses that responded to the survey were aware of the AONB designation, with only 2 businesses not aware (some of the subsequent analysis will also reflect that not all businesses answered all of the questions).

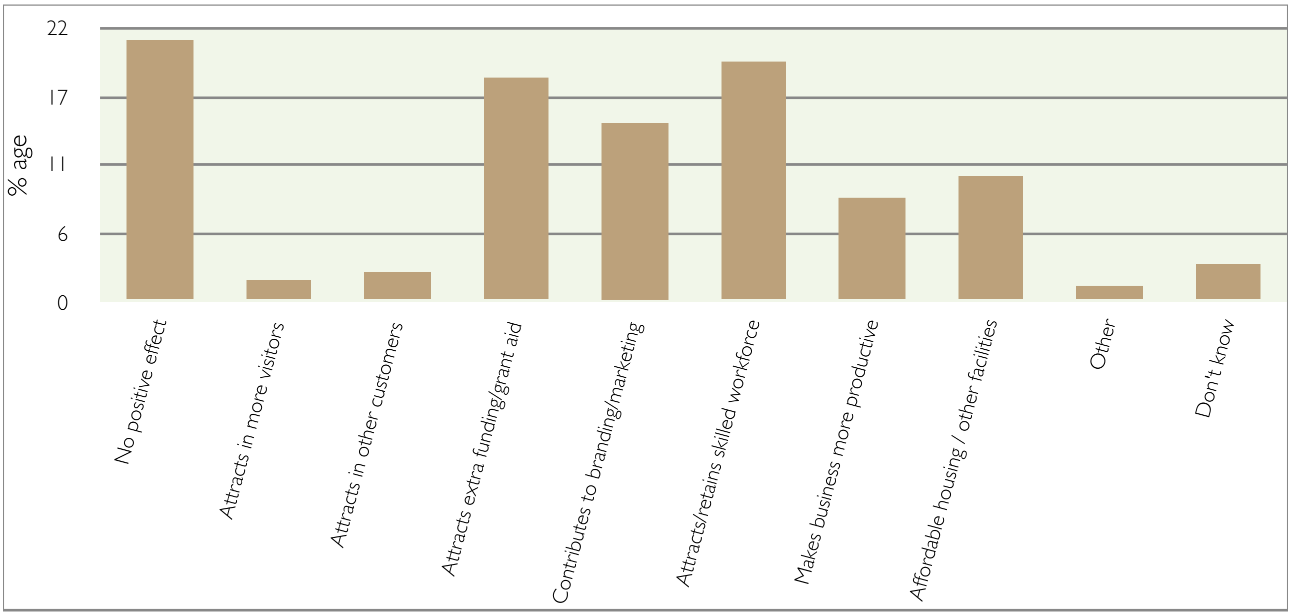
It is also clear that of those that responded to the survey the general view is that the Dorset AONB has/does deliver significant positive benefits to their business. 96 (65%) felt that the Dorset AONB did have an impact (positive or negative) on their business, with 52 stating that no impact had been felt. Businesses were then asked to give an opinion on *"what value does the fact that the landscape is protected and conserved (as an AONB) have on the business?"*. Only 3 businesses who responded stated that it had any kind of negative impact, for 2 of them it was classed as a minor impact. Conversely, 58 businesses (out of 116 businesses who answered this question) felt that there was a major positive. In many respects, the response to this particular question serves to highlight the importance of the Dorset AONB.

Chart 7: The value to businesses of being located in or near the Dorset AONB



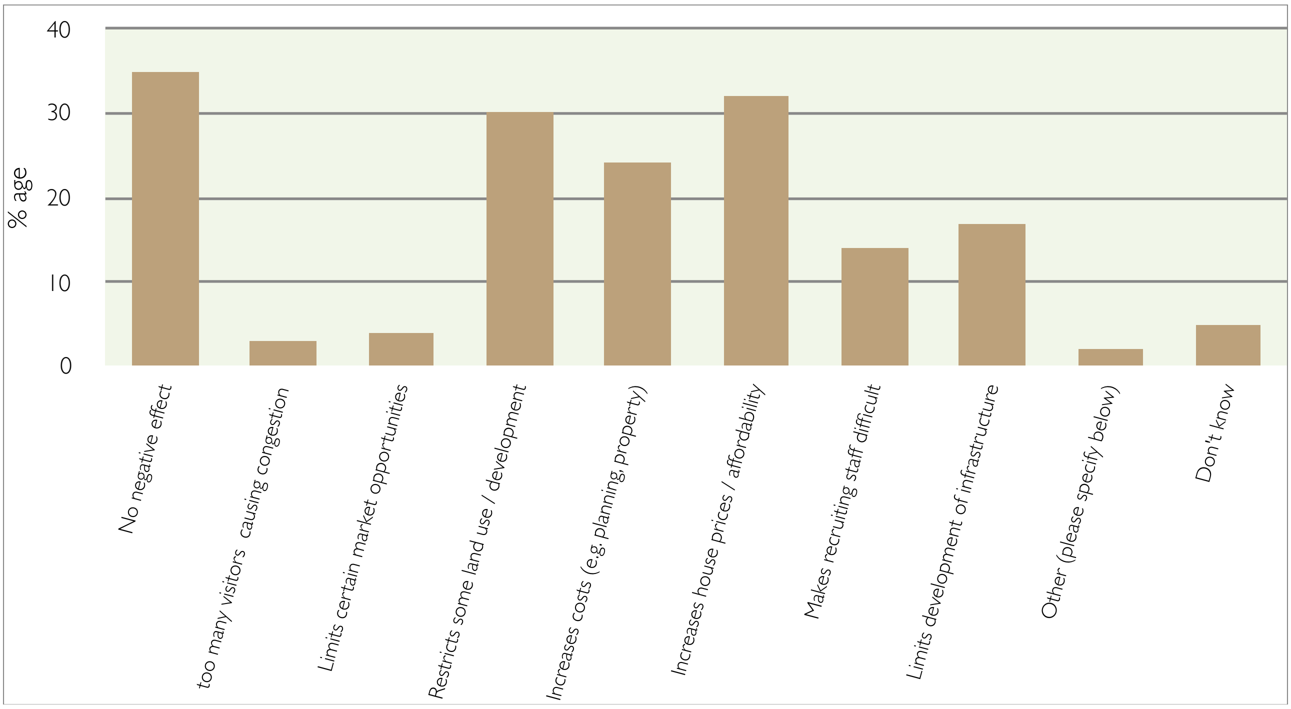
Businesses were then asked to detail the reasons why either a positive or negative impact of the Dorset AONB had been felt. Business could highlight more than one factor. Encouragingly, only 3 responses highlighted that there was 'no positive impact', whilst 35 of those who responded said there was 'no negative impact'. The charts below highlight that many businesses feel that the key role that the Dorset AONB plays in helping their business include attracting in more visitors into the area, generating income and contributing to the image/branding/marketing of the business. Whilst 76 of respondents felt that attracting more visitors was a key benefit, only 3 felt that the Dorset AONB helped attract too many visitors.

Chart 8: Positive effects on business of being located in or near the Dorset AONB



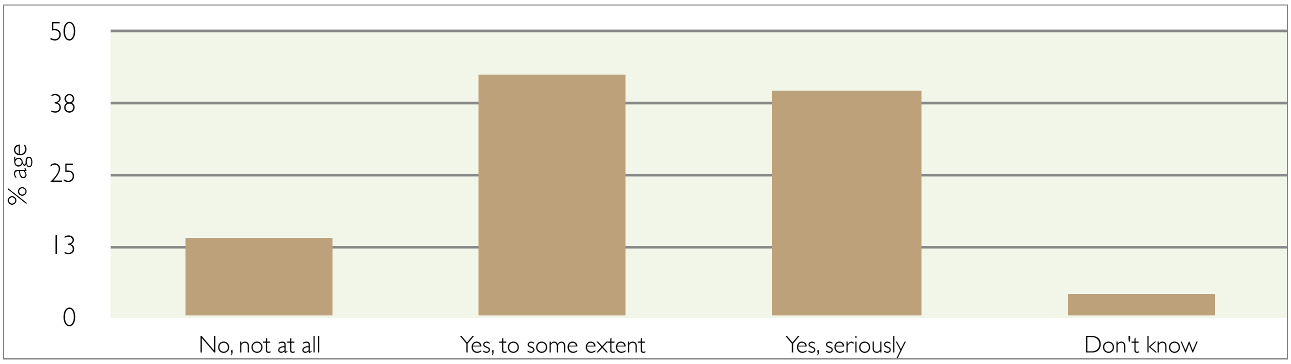
Of the factors that were felt to have a negative impact upon businesses, the most prevalent responses related to increasing house prices which affect affordability, restriction of certain land use and increased costs.

Chart 9: Negative effects on business of being located in or near the Dorset AONB



Following on from the earlier questions, businesses were also asked that *"if the quality of landscape were to deteriorate for any reason, would you expect this to have any impact on the performance of your business?"* Again, the findings are encouraging and highlight the value that many businesses place on the Dorset AONB. Only 14 businesses felt there would be no impact upon their business performance, whilst 43 felt it would impact it to some extent and a further 40 felt it would have a 'serious' impact. Again, in some respects, this simple question demonstrates the significant value attached to the Dorset AONB by the business community.

Chart 10: Impact upon business of deterioration of the quality of the landscape

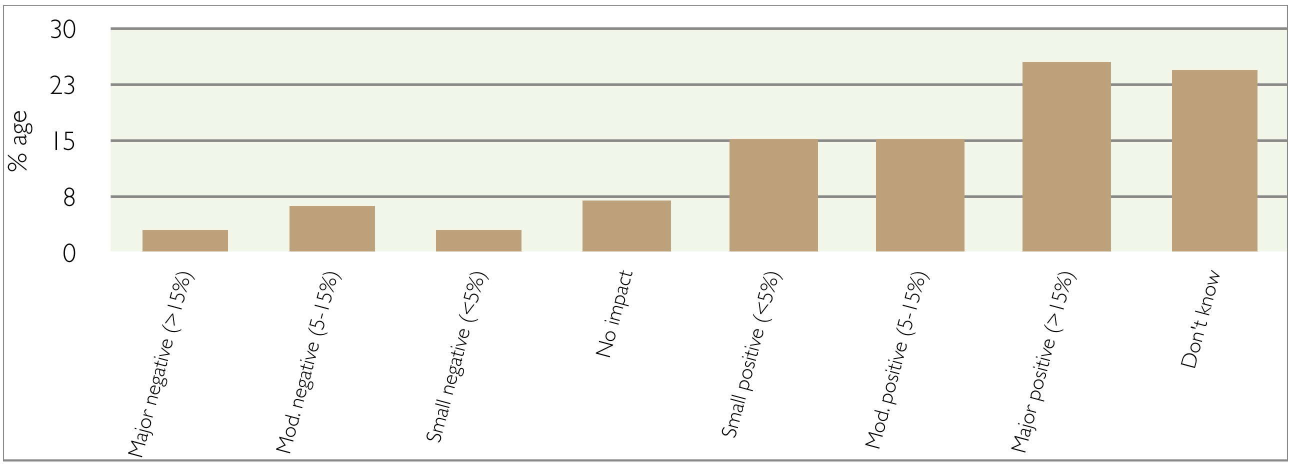


We were also interested to understand whether, and how, those businesses may use the Dorset AONB status and associated branding for their own branding or marketing purposes. This is specifically connected to the value of the designation itself and we discuss this further in the next section

The survey asked businesses about the influence that the Dorset AONB may have had upon their business performance - with a focus on the estimated 'uplift' provided to their annual turnover. The options were provided in turnover bands[25]. It is important to note at the outset that whilst 155 businesses completed the survey across Dorset and East Devon, only 74 businesses quantified the estimated turnover impact of the Dorset AONB. Therefore there are relatively wide confidence intervals associated with these estimates.

Of those that were able to estimate the quantifiable impact, the average uplift for those positively influenced by the Dorset AONB was 7.2% of annual turnover.

Chart 11: Impact upon annual turnover of being located in or near the Dorset AONB



[25] *As stated previously, where there were banded options in any of our survey questions we have taken the mid-point of that band as a proxy for the average response in that particular band. For the biggest option where there is no 'maximum' i.e. £20+, £1mn+, >15% we have applied what we think is a pragmatic figure – ensuring our estimate of the average response is not skewed by too large a figure.*

Case Study: West Milton Cider Company

The West Milton Cider Company (WMCC) is a fairly small enterprise, created by Nick and Dawn Poole in West Dorset, within the Area of Outstanding Natural Beauty (AONB). They have been making cider since 2000 and selling it commercially since 2010. They produce a range of ciders and juices, through a slow natural fermentation process with no added chemicals. (See www.westmiltoncider.co.uk.)

Centred on the Bridport area, WMCC sells its products through a variety of outlets across Dorset, from Lyme Regis to Wareham: a range that is extending all the time. Apart from the owners, it employs one full-time employee and up to half-a-dozen volunteers at apple harvest and pressing time. The firm has grown its output significantly from under 5,000 litres at the start to an estimated 28,000 litres this season.

The company is a member of the Dorset Food & Drink initiative; a project led by the Dorset AONB team. Through this organisation, WMCC welcomes and appreciates the benefits that the AONB offers to relatively small, local firms that are dependent on the flow of services and products that are sustained by a healthy Dorset environment.

Nick and Dawn are sure that, through Dorset Food & Drink, the AONB supports their sales growth, boosting brand awareness and marketing, and building networks with other like-minded businesses. In particular, through its work on a series of well attended shows and festivals, Nick and Dawn say, "Dorset Food & Drink has helped us gain direct access to the public and, as with the Wimborne Food Festival in autumn 2015, has enabled us to get some important leads for developing new outlets for our products."

They believe that Dorset Food & Drink, which WWMC has been a member of since the start two years ago, offers them a strong psychological boost. The AONB team are said to be enthusiastic and well organised, promoting a solid foundation of local value and image and driving efforts to produce and sell a high value range of products with a strong environmental theme. WMCC believes that, because of the AONB team's work through Dorset Food & Drink, Dorset is becoming an important "foodie" county admired and envied by rivals without such support.

The experience of WWMC shows how the mutual promotion and conservation of Dorset's environmental bounty can have positive effects on small local business start-ups and, thereby, the wider economy.

Again, we are looking to utilise the findings of the survey against a wider population and this assumes that the businesses who responded to the survey are broadly representative of the wider business population – both in terms of their views as well as profile i.e. size, sector etc. To reiterate an earlier point, we must recognise that many of those who responded may have a vested interest in the Dorset AONB. There may be an element of 'selection bias' in the responses. In terms of profile, we take some reassurance that there is a reasonable spread of businesses in terms of size, but do recognise that there may be a higher proportion of businesses in those sectors most closely associated with the visitor economy. We make no adjustment for any of these factors but highlight them in terms of care needing to be used when interpreting our analysis.

The next methodological step was to determine what turnover represents a 'typical' Dorset business. This data isn't directly published although the number of enterprises in turnover bands is made available. From this we can broadly derive an average turnover figure[26] across the business population. Using this data we estimate that the average turnover equates to circa £595,000 per annum. It is important to note that this estimate is significantly positively skewed i.e. a few businesses of significant turnover size affects this average[27]. If we only look at those

[26] *Although this isn't exact because we do not have exact turnover figures for the businesses in each turnover band – therefore we assume that the mid-point is the typical turnover of a business in each respective band.*

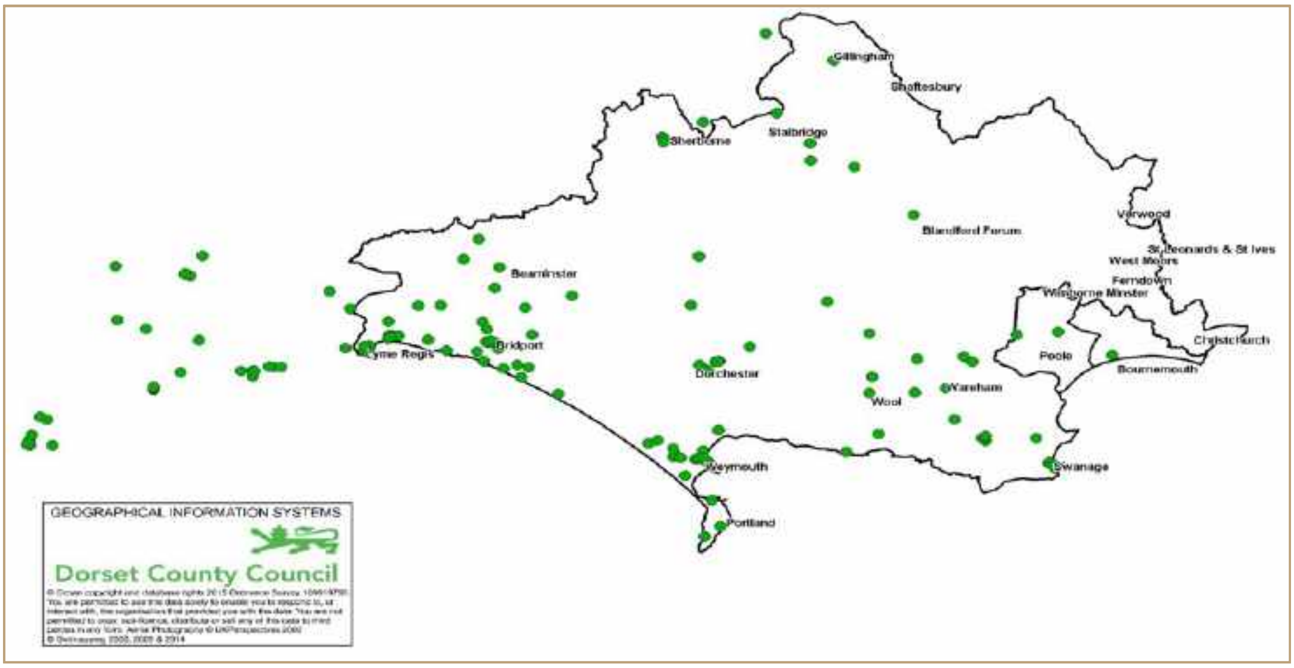
[27] *The median average of Dorset businesses would be turnover between £100,000 and £249,000.*

districts where the two designated areas (Dorset AONB and Jurassic Coast) principally lie within (Purbeck, West Dorset, Weymouth & Portland and North Dorset) then the average turnover falls to £486,000 per annum. One approach would be to assume that the estimated average turnover uplift as found in the business survey is applied to a wider population that has a typical turnover of either of the above figures.

However, that would probably overstate the potential impact of the designations, not least because analysis of the business survey respondents shows that they typically have smaller turnover than indicated above. 138 of the 155 respondents were prepared to indicate their current turnover levels – as shown in the below chart. Only 25% of respondents stated they had turnover in excess of £500,000, with 45% having turnover below £75,000 (broadly the VAT threshold). We estimate that the average turnover of respondents to the business survey was circa £367,000. Therefore using this lower average turnover figure as a representative proxy for businesses in the wider population is a pragmatic and appropriately conservative assumption.

The next conservative assumption that we make is that we focus only on those areas that correspond most closely to the Dorset AONB. The reason for this is that analysis of the location of businesses that responded the survey is heavily focused, unsurprisingly, in those local authority districts where the designated areas are found (as shown in the map below)[28].

Map of respondents to the business survey



We do not have sufficient confidence in the survey findings to apply them against a business population in a wider area – for example, assuming the same influence is felt for businesses in Bournemouth. Whilst we recognise that this may understate the overall impact this approach has been driven by the available data and having more confidence in our estimates of impact.

Again, to be consistent with the approach taken elsewhere in the report, we adopt a relatively tight geographical focus based on the definitions provided. Again, we accept that the area of influence will extend beyond these defined areas in many cases. However, this is countered by the overall assumption that we apply here that all businesses will be affected to the same extent

[28] Of the 141 businesses that provided a postcode in their response (out of a total of 155) – 138 of these were located in either North Dorset, Purbeck, West Dorset, Weymouth & Portland or East Devon. Only 3 were located in either Bournemouth or Poole.

as indicated by the relatively few businesses that responded to the survey i.e. the issue of 'selection bias' that we highlight above. By applying a relatively tight geographical focus we negate some of this potential 'bias'.

Finally, to be consistent with our other measurements of economic activity/impact contained elsewhere in this report, we adjust the turnover uplift to Gross Value Added using a turnover: GVA ratio[29].

Based on this approach, we estimate that the Dorset AONB *influences* business output by circa £62mn (current prices). It is important to note that this represents an annual flow of benefit and should be repeated year-on-year (dependent upon how effectively the Dorset AONB is managed for the benefit of businesses). Recognising that this estimate is dependent upon survey data, using the estimated confidence interval provides a range of £55mn - £69mn[30].

The outcome of this exercise broadly corresponds closely to the estimates relating to the benefits generated through visitor expenditure influenced by the Dorset AONB. Firstly, by looking at the estimated economic impact through two routes this provides a level of confidence in our estimates. We recognise that there is significant uncertainty in any method, but the adoption of two pragmatic approaches has led to broadly the same conclusion. Secondly, we reiterate ***that the two estimates should not be viewed separately***; in some respects they are measuring the same thing in different ways. The additional visitor expenditure associated with the Dorset AONB is captured as higher turnover/income by local businesses.

Whilst the business survey has captured benefits from some businesses that may not be reliant on the visitor economy – suggesting that benefits extend beyond the attraction of tourists – the majority of respondents to the business survey were in those sectors most reliant. As well as this, the primary benefit of the Dorset AONB status cited by businesses was the attraction of more visitors to the area and the associated additional income.

Therefore, in conclusion, we estimate that the *influence* of the Dorset AONB generates circa £65mn (the mid-point of our estimate using the visitor expenditure and the business turnover approaches) in additional output to the area (Dorset) on an annual basis.

However, due to the Jurassic Coast and the Dorset AONB 'overlapping' in large parts of Dorset, it is equally important to recognise that it has been difficult to separate the impact of the Dorset AONB from the Jurassic Coast (as part of this overall work we have also undertaken a similar exercise for the Jurassic Coast). ***Therefore, the estimate of economic impact, or influence, for the two designated areas should not simply be added together.*** It is likely that there will be overlap in the estimates. For example, many visitors coming to the area will visit the protected landscape of the AONB, as well as the outstanding coastline of the Jurassic Coast. 'Attributing' visitor expenditure to one or the other designated areas is not possible at an aggregate level given the data which is available.

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[29] This can be derived from the Annual Business Survey provided by the ONS. This shows that typically GVA equates to circa 40% of turnover across the whole business population. Therefore the ratio we apply is 0.4.

[30] The confidence interval has been estimated by using the number of businesses responding to the turnover questions for the respective designated areas and setting this against the number of enterprises in the districts that cover the designated area i.e. whole business population. This wider figure is used in combination with the average turnover uplift to estimate the aggregated uplift figure. For the AONB the confidence interval at 95% confidence is +/-11.36%, whilst for the Jurassic Coast it is +/-10.48%.

Valuation of economic activity associated with the AONB status

The final step in considering the economic value that can be associated with the Dorset AONB is to outline the added value that has been delivered as a consequence of the designation itself.

What we cannot say with any certainty is how much of the above estimate of economic benefit can be associated with the designation itself i.e. the 'Dorset AONB', or simply due to the existence of the outstanding natural beauty within the AONB. Through the protection and preservation of that landscape, **it is highly likely that the existence of the AONB status itself has helped to significantly increase the scale of benefits to the area.** However, the fact that the AONB designation is over 50 years old means that it is hard to disentangle the designation and management from the landscape it has helped to conserve.

To look at the added value that can be more closely associated with the AONB status itself we look at a number of elements:

A. The benefits delivered as part of creating a Dorset AONB 'brand'. Some of the focus of the Dorset AONB team has been to strengthen the brand, increase awareness and market the area on the basis of that branding. Certainly, as seen from the results of the visitor and business surveys, awareness of the Dorset AONB is high and it could therefore be argued that the brand activity delivers worthwhile added value in attracting visitors to the area.

B. The additional funding that has been leveraged as a consequence of the designation and the work of the Dorset AONB team. A further key activity associated with the designation is focused around leveraging additional funding into the area. A focus in our work has been to understand how the AONB status has helped leverage in those additional funds, and the role that the Dorset AONB team plays in promoting and coordinating schemes.

C. The direct benefits delivered as a consequence of the Dorset AONB team being in place. We also consider this, although recognise that these expenditure-based impacts will be relatively limited and arguably could be classified as a cost. However, it is a fundamental point to recognise that the benefits in i) and ii) above would not have been delivered without the AONB team being in place and the real significant benefits are represented by its activities rather than associated expenditure.

   We look at the WTP expressed in the visitor survey to comment on how much people value accessing the Dorset AONB - different than our estimate of value expressed above associated visitor expenditure. We highlight the findings of the WTP question contained in the visitor survey and provide additional commentary on the results in terms of helping us inform our view on the value that people attached to having the designation in place (as a consequence of the protection and conservation that it helps deliver).

The Dorset AONB Brand

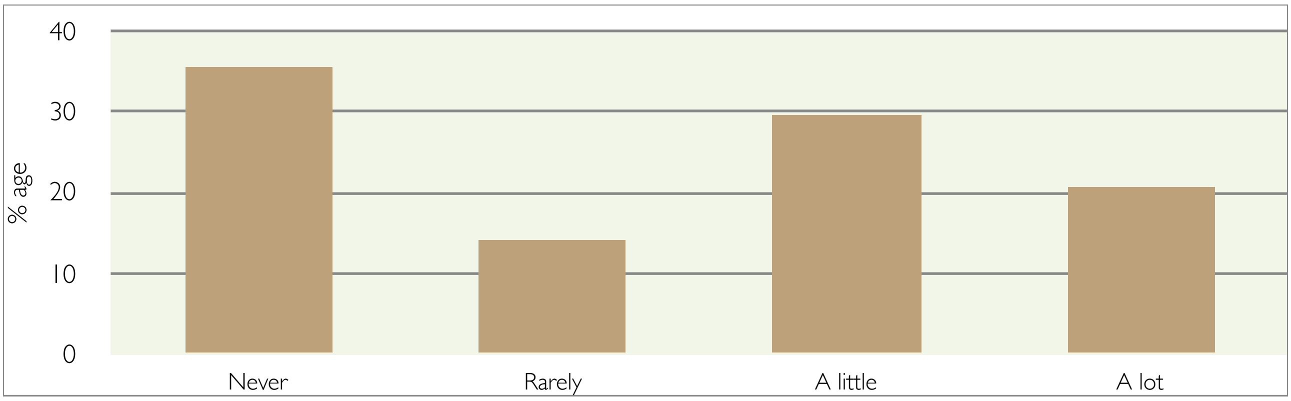
Creating a brand has been one of the activities for the Dorset AONB. Whilst the purpose of creating a brand has many different elements, a key focus has been to raise awareness and attract people to the area. The creation of a brand is one key area where the value of the designation can be *illustrated.* Without the time and resources devoted to building a brand then it could be argued that any branding approach would have been done in a piecemeal manner, if at all.

The Dorset AONB brand is effectively a 'public good' which anybody – principally businesses – can use for their own purposes in stimulating additional activity. The AONB brand is not protected. An interesting observation is that there will be recognition of the AONB brand at a national level. Perceptions of what AONB status brings to the protected area may be related to their view of what AONB's do at a national level. In this report we are less interested in the value of the overall AONB brand, and more interested in the specific Dorset AONB. However, we recognise that it is difficult to separate the potential benefits of the Dorset AONB 'brand' from the generic AONB brand. It is not unique in that sense. However, the wording in our surveys does specifically refer to the Dorset AONB and therefore we assume that the majority of responses do relate to that particular status.

Through the business survey we also wanted to understand whether the 'brand' has been adopted by businesses and, if so, whether it had had a subsequent positive impact. There is a difference between the benefits identified above, which relate more to benefiting from the general branding/marketing of the wider area, and those where the business has directly adopted the 'brand' in its own specific marketing activity.

Businesses were asked whether they refer to the Dorset AONB when promoting/marketing their goods and services to customers. The results from the survey are encouraging in revealing the extent to which the brand is being adopted and utilised. Approximately 50% of those who responded to the survey said that they refer to the Dorset AONB; 21% using it 'a lot', with a further 29% using it 'a little'. 36% of respondents said that they never refer to the AONB, with 14% 'rarely' using it.

Chart 12: Utilisation of the Dorset AONB brand for business marketing purposes



We assume that the benefits associated with the adoption of the wider brand will, in part, be reflected in businesses consideration of the benefit in terms of impact upon their turnover. Therefore it is impossible to separate out the specific benefits provided by the application of the Dorset AONB brand from any other benefits the businesses felt about the value of the designation (as outlined elsewhere in this analysis). We do know that 25% of those businesses that responded to the survey indicated that the Dorset AONB has positively contributed to the image/brand/marketing of the business. As stated previously, this was seen as the second largest positive benefit to their business (after attracting more visitors to the area). Therefore, the development and *'free'* application is seen by many businesses as an important outcome of the AONB status and the work of the Dorset AONB team in supporting that development.

Leveraged funding

Another activity that highlights the added value of the AONB status – and particularly the supporting management infrastructure – is the leveraging of additional funds beyond those that sustain that support network (as discussed later in the direct expenditure effect). There are a number of issues that are important to highlight regarding the exercise of identifying those leveraged funds that can be attributed to the Dorset AONB designation itself. This affects how we view the 'additionality' in a funding context.

In comparison to the Jurassic Coast team, which tends to support project development and funding applications by other organisations, for the Dorset AONB the relationship is slightly different. Whilst they also play an important role in supporting funding applications by other organisations (see below comment) they have secured some significant funded projects which they have managed and delivered themselves. The Dorset AONB works in partnership with other organisations to help achieve its overall objectives as set out in its Management Plan. Given the relatively limited (and decreasing) resources directly available to it, partnership working is an important activity to achieve those objectives. For example, the Sustainable Development Fund managed by the Dorset AONB works with organisations across the AONB area that help to deliver aspects of the wider Dorset AONB Management Plan.

The discussions also highlighted that the AONB status can have four principle benefits in funding applications.

- Firstly, the actual Dorset AONB team acts as a resource that help organisations develop their funding applications (and wider project development). Of course, those teams would largely not be in place without the designations and the revenue funding support that comes with the AONB status. The level of input and support by the team varies on a case-by-case basis but the Dorset AONB team has assisted a large number of organisations. It is important to note that their role will not be purely reactive i.e. reacting to a request for help. In many cases the team (and their wider supporting partnership) will have played a key role in stimulating the idea/concept and been important in the project as it has been developed (pre-application). They play an important role on the demand-side.

  A good example of this is the role that the Dorset AONB team play in stimulating applications into the agri-environment scheme. Over the past 4 years landowners in the Dorset AONB have secured approximately £19mn in agri-environment payments. The Dorset AONB estimates that approximately £2.4mn of this total has been directly stimulated by the AONB team over this period. The flow of agri-environment payments is increasing year-on-year and the AONB's 'influence' is also growing – meaning that the value of AONB support is also growing on an annual basis.
- Secondly, and more intangible, is that there is a value of the designation in terms of branding within the fund application process. That is, many funding applications will have been successful because they placed the AONB status (or the fact that it is a protected landscape) at the core of their funding argument.
- The third element is how protected landscape status helps organisations leverage in additional funding. This is particularly demonstrable within the AONB and the role that being in a protected landscape plays for landowners applying for agri-environment schemes. Schemes in protected landscape areas are often classified as higher priority, and protected landscape status benefits applicants in terms of scoring. As a consequence, the Dorset AONB has seen relatively high flows of agri-environment investment and a high proportion of successful schemes were stimulated, and/or supported by involvement by the AONB team.
- The fourth element is the additional 'confidence' that funding organisations may get from knowing that projects in the designated areas are being developed in a relatively coordinated manner and that the AONB team (or wider partnership) has played a key role in helping coordinate activity. By having oversight of planned activities in their area, the Dorset AONB team is able to improve coordination between projects and to hopefully improve complementarity between those projects. The consequence is that projects are developed in a less piece-meal fashion.

There is also the additional element that the wider partnership structure of the Dorset AONB brings, showing that a particular project is helping to deliver objectives in the AONB management plan, and demonstrating that there is wider community buy-in to that project. The AONB Management Plan goes through a comprehensive community consultation process and by showing that a particular project is helping to deliver the objectives then demonstrating community support may become 'easier' in funding applications. Again, both effects are relatively intangible, and certainly difficult to quantify, but they do represent another important influence of the designation.

Analysis of the figures contained in the Dorset AONB annual reviews show that this tends to be a significant factor for the Dorset AONB. Over the period 2013-2015, the AONB acted as the delivery body for projects valuing circa £1.3mn. Whilst a proportion of this will be spent on project staff salaries, a larger proportion will be directly spent in/and supporting the local community.

However, capturing the funding that has occurred as a *direct* consequence of the Dorset AONB activity does not fully tell the story. There are often *indirect* consequences of that original leveraged funding. Therefore simply capturing the direct leveraged funding will understate the full extent of added value delivered through AONB activity.

To demonstrate that causal chain we set out the below example of how initial AONB involvement then led to subsequent further investment into the area. This relates to the 'Wild Purbeck' Nature Improvement Area.

AONB team played a key role in securing circa £636k grant funding from NE to establish the 'Wild Purbeck' Nature Improvement Area (NIA); plus £700k commitments from partners. The Dorset AONB co-ordinated the initial bid and project managed the NIA.

A series of projects have been implemented to restore wildlife habitats, enhance ecological networks, provide land management advice and facilitate greater community engagement. This was aided by a further £300,000 grant from NE, benefiting from the fact that the NIA had a good project plan in place and pipeline projects.

As a consequence, wildlife habitats have improved,;heathlands have been restored through protection; low-level grazing and wetlands established [and groundwork for potential business – see heathland arisings project].

Two parcels of land became available for purchase within the NIA including habitats that had been improved through NIA initiatives.

Due to the NIA 'designation' and the fact that sensitive management of these parcels was strategic to the aims of the NIA, the parcels of land scored highly in both the RSPB and National Trust criteria.

As a consequence, in December 2014, the RSPB purchased 28ha of disused clay quarry which Wild Purbeck had helped to turn into a saline lagoon with associated heathland and ancient woodland habitat.

Estimated cost £273,000.

As a consequence, in 2014 the National Trust previously privately owned health land and woodland, enabling continued restoration through low-intensity cattle grazing.

Estimated cost £651,000.

Direct expenditure impact:

Although we recognise that the economic benefits delivered as a direct consequence of having the team in place is relatively minor in the context of the significant benefits highlighted elsewhere, this element is included in other comparator studies and we include for consistency purposes. It is useful to reiterate the point previously made – that the benefits generated as a consequence of leveraged funding, brand development etc. would certainly not be at the scale without the AONB team driving much of that activity.

The AONB designation will also have a role to play in terms of the direct economic impact associated with running the management teams itself. Analysis of financial figures contained in the annual reviews shows that the average the core costs (expenditure) for the Dorset AONB team over the past 5 years have been circa £240,000, although decreasing on an annual basis (reflecting the financial pressure that the supporting local authorities have been under). In equivalent Gross Value Added terms (to be consistent with our estimate in earlier sections of the report), this equates to circa £90,000-£100,000 per annum.

Case study: AJAR OF

Tracey Collins moved to Dorset, three and half years ago and set up her preserve making business in Droop, near Sturminster Newton. It s a small, but growing business that employs one member of staff apart from Tracey herself and turns over about £30,000 a year. **Ajar Of** make jams, marmalades, chutneys and sauces of every flavour you can imagine, and some you can't!

Her arrival coincided with the relaunch of Dorset Food & Drink, by Dorset AONB - and Tracey came across DFD at the County Show that year. Being member has helped Tracey become more aware of the other food producers around her and how she can run her business more sustainably. Using local produce is important to **Ajar Of,** so Tracey was delighted to find a local blueberry grower from Puddletown, rather than having to import frozen product. "And the quality is superb" she added.

The Dorset Food & Drink Team have become more and more useful as Tracey realised that she needed to be more proactive with them - sharing her ideas and aims. In return, she has found them to be enthusiastic and supportive, with great social media and great events.

"it's got to be a two-way relationship to work, but they have helped me make all sorts of links and contacts. It's like having a mentor"

The majority of core costs expenditure relates to staff costs – in the range of 80%-90% of total core expenditure. Therefore the supply chain (indirect) impact of the organisations is relatively negligible. There will be a knock-on benefit of wage expenditure (induced impact) from employees in the local economy; available benchmarks[31] show this is approximately 0.2 of the direct impact. This equates approximately to a further £20,000 GVA impact in the local economy.

As highlighted in the previous section regarding leveraged funding, the Dorset AONB has been relatively successful in attracting and managing additional projects to its core role. This component is actually significant in terms of overall delivery. Collective project values have often

[31] *South West Regional Accounts*

exceeded more than £1mn annually and actually constitute a greater proportion of funding than those that support the 'core activity' of the AONB. A smaller proportion of projects costs are devoted to employment costs, instead more is devoted to supporting the wider community. Taking these wider costs into consideration, we estimate that it would equate to circa £650,000-£700,000 direct GVA impact, with a further £140,000 in indirect impact.

In the latest available Dorset AONB annual review (13-14) the core team comprised of 5.3 FTEs, with a further 3.85 FTEs supported by project funding. Through the delivery of these projects further posts are supported in partner organisations[32]. For example, in 2015, these projects supported 5.5 FTEs in partner organisations. Again, the indirect employment impact would be relatively small – supporting 3-4 jobs in the wider economy.

As well as the value of paid-employment, the Dorset AONB also relies on a significant amount of volunteer time to help deliver its stated aims and objectives. Even though there is no direct transaction captured by a market price (i.e. a wage), it is important to account for this impact.

Debates on the most appropriate method for valuing volunteer time focuses upon the relative merits of different techniques for valuing volunteer time as an *input* or, alternatively, the possibilities for valuing activities through measuring *outputs* instead. The difficulty with the latter approach is the definition of what would constitute an output in the context of volunteering within the Dorset AONB area. It would be difficult to consistently define what an 'output' might be.

Therefore, an 'input' based method can be adopted as a simpler and more intuitive approach. Taking these issues into account a preferred approach to valuation would involve the use of shadow pricing techniques. In the Government guidance[33], it is recommended that the use of the minimum wage is appropriate as a proxy for the value of the volunteer time input. This should then be marginally adjusted up to reflect non-wage costs (by circa 20%). The latest minimum wage for those aged over 21 is £6.70 (£8.04 on an adjusted basis), and for those aged 18-20 it is £5.30 (£6.36 adjusted for non-wage costs). These are current prices.

This 'proxy valuation' exercise tends to be undertaken by the Dorset AONB for their annual review. According to the latest estimate, the valuation of time contributed by AONB volunteers equated to £293,500 in 2014/15. The Dorset AONB has estimated the value of volunteer time using guidance from the Heritage Lottery Fund. Volunteer time is broadly valued between £6.60 for non-skilled labour input (therefore broadly commensurate with the above) and £20 for skilled labour input[34].

In terms of the impact of the core expenditure of the Dorset AONB team, what is not known is the 'opportunity cost' of the funding support provided. All the expenditure may not be seen as additional. However, our discussions with the teams and Dorset County Council indicate that support helps to leverage in further funding and so additionality is not a significant argument in the context of the overall scale of benefits we have estimated being delivered by the respective teams.

[32] *A proportion of 3 posts in Dorset Wildlife Trust, 1 post in Dorset Countryside, 1 post in Farming & Wildlife Advisory Group, and a proportion of 2 posts in a local arts organisation.*

[33] *'The Green Book – appraisal and evaluation in Central Government' – HM Treasury – July 2011*

[34] *The HLF guidance is for non-skilled labour to be valued at £50 per day, and £150 per day for skilled input. Per hour figures have been estimated on the basis of a 7.5 hour day.*

Willingness-to-pay

Although fraught with methodological difficulty, willingness-to-pay (see comment on the advantages and disadvantages associated with this methodology in our earlier section) can be used as one of the proxies for estimating the value that people place on accessing an environmental asset. As previously highlighted, the average willingness-to-pay for accessing the Dorset AONB (in the absence of free and open access facilitated by public support) expressed in the visitor survey was £4.51. This shows that visitors value the Dorset AONB over and above what they currently *directly* pay for accessing it (they will *indirectly* pay through parking charges, travel costs etc.).

However, it needs to be stressed that the question contained in the surveys was purely theoretical and does not necessarily translate through to a *'preparedness to pay'.* Indeed, many of the comments contained in the resident's survey highlight the widespread feeling that the Dorset environment should remain an open and freely accessible resource for the benefit of everyone.

Whilst a willingness-to-pay question relating specifically to the Dorset AONB was not included in the Dorset residents survey (where the WTP question focused on the wider definition of the Dorset environment), there was a question regarding the WTP for accessing the Dorset countryside in general (of which the Dorset AONB is a large part). This showed that the average WTP (assuming this represents the view of household contribution) was circa £34 per annum. Given that residents currently tend to indirectly support the Dorset environment through their Council Tax contributions, the WTP expressed as an annual figure seems more relevant. Given the relatively small figure that is currently contributed to the Dorset environment from the typical household Council Tax bill (£3.93 per household) then it could be argued there is considerable consumer surplus. If WTP is a proxy of the benefit that people receive, then the individual benefits of accessing and enjoying the Dorset environment are significantly exceeding the indirect costs of doing so.

The WTP approach is useful as an *illustration* of the considerable value that local residents attach to the Dorset AONB. It should be viewed as an illustration, and *less focus* should be on quantifying that value. We would advocate a more specific, detailed and thorough analysis to draw any firm conclusions about how much people would actually be willing to pay (either directly or indirectly) to support the ongoing maintenance and improvement of the Dorset AONB. Factors such as income constraints, alternative choices and mechanism for support would need to be clear to those who respond to any further investigation. The WTP questions contained in our surveys were one part of a wider set of analysis.

CONCLUSION

This report has utilised evidence from primary research to inform our view on the influence that the Dorset AONB status exerts on the wider economy. The results from the extensive survey work undertaken shows that visitors, businesses and residents all place a high value on the AONB and that the Dorset environment in general. The extent of survey responses received allows us to have some confidence in the findings being broadly representative of the wider population, although we recognise there will be an element of 'selection bias' in the responses.

The visitor survey showed that the Dorset environment and the Dorset AONB in particular was highly influential in attracting people to visit Dorset and businesses who responded to the business survey recognise that the higher visitor numbers have had a beneficial impact upon their turnover. Businesses also recognise the value added by the AONB brand, and many adopt the brand for their own purposes. Whilst this may have less 'visibility' than the Jurassic Coast brand, we have found the results in terms of utilisation encouraging.

The Dorset environment is clearly valued by Dorset residents. The countryside is enjoyed on a frequent basis and the majority state that it is highly significant to their own personal well-being. By asking their 'willingness-to-pay' in the absence of continued public support we can begin to understand that the value they attach appears to be greater than the support currently indirectly provided.

Map of survey responses from Dorset resident survey