



Valuing Environmental Impacts: Practical Guidelines for the Use of Value Transfer in Policy and Project Appraisal

Case Study 6 - Estimating Value for Money of National Park Expenditure

Submitted to

Department for Environment, Food and Rural Affairs

February 2010

eftec
73-75 Mortimer Street
London W1W 7SQ
tel: 44(0)2075805383
fax: 44(0)2075805385
eftec@eftec.co.uk
www.eftec.co.uk



REGISTRATION NUMBER 183887

CASE STUDY 6: ESTIMATING VALUE FOR MONEY OF NATIONAL PARK EXPENDITURE¹

- *This case study provides an assessment of the benefits of visitor services provided by the Peak District National Park Authority.*
- *It is based on readily available information and data and illustrates how value transfer can be applied in the context of assessing potential policy outcomes at an initial 'scoping' level.*

STEP 1: ESTABLISH THE POLICY GOOD DECISION-CONTEXT

This case study applies unit value transfer to estimate the monetary value of benefits in relation to assessing the 'value for money' of expenditure by National Park Authorities (NPAs). It focuses on the provision of visitor amenities in the Peak District National Park. The Appendix to this case study provides a map of the Peak District National Park.

National Parks

National Parks in England are designated under the National Parks and Access to the Countryside Act 1949 in recognition of their natural beauty and recreation opportunities. The two statutory purposes of the National Parks' designation are:

- To conserve and enhance the natural beauty, wildlife and cultural heritage of their areas; and
- To promote opportunities for the public understanding and enjoyment of the special qualities of their areas.

Where there is irreconcilable conflict between the two objectives, conservation takes precedence (Defra, 2005).

NPAs are independent authorities, operating within the local government framework, responsible for the duties associated with the designation and strategic and local planning within their areas. Each of the eight² National Parks in England (Dartmoor, Exmoor, Lake District, Northumberland, North York Moors, Peak District, Yorkshire Dales, The New Forest) plus the Norfolk and Suffolk Broads³, is managed by its own authority. The NPAs set the Local Development Framework which provides the guide for spatial planning, plus grant consents for development with direct control over residential and industrial

¹ Disclaimer: Assistance and comments from Jim Dixon, Sonia Davies and Richard Campen at the Peak District National Park Authority are gratefully acknowledged. The views expressed in this document are those of the authors (eftec) alone and should not be attributed to the Peak District National Park Authority, the Department of Environment Food and Rural Affairs (Defra), or any other individual or organisation.

² A ninth National Park, South Downs, was confirmed in November 2009 and will be created in March 2010. See: <http://www.defra.gov.uk/rural/national-parks/south-downs/index.htm>

³ The Broads Authority was established by Norfolk and Suffolk Broads Act 1988 to manage the Norfolk and Suffolk Broads in recognition of its navigation opportunities as well as conservation and recreation (Defra, 2005).

development, the design of buildings and structures and primary extraction activities (e.g. minerals and aggregates)⁴.

Funding for NPAs is primarily provided by Central Government in the form of Defra's People and Landscape programme, which also contributes funding to other Non Departmental Public Bodies (Natural England, the Forestry Commission, the National Forest, British Waterways and the Environment Agency). For the period 2007 to 2011 total funding across all NPAs from Central Government is between £45 million - £49 million per year, with individual NPAs receiving funding in the region of £4 million - £8.5 million per year. Other sources of funding for NPAs include European grants, Lottery funds and other collaborative projects, for example with Regional Development Agencies, as well as income from trading operations (for example visitor centres, car parks, etc).

Value for money

'Value for money' (VfM) is a key concept in the allocation of public expenditure resources across Government, although what is meant by VfM can be context specific (see **Box 1**).

Box 1: Defining 'value for money'

- HM Treasury *Green Book* guidance (HM Treasury, 2003) places VfM in the realm of appraisal and evaluation of public sector policies, programmes and projects and the goal of ensuring options selected and implemented represent VfM while achieving objectives of Government intervention. A central tenet of *Green Book* guidance is economic analysis and the application of cost-benefit analysis (CBA) to judge whether interventions are worthwhile. Specifically the *Green Book* states, "If a full cost benefit-analysis has been undertaken, the best option is likely to be the one with the highest risk adjusted net present value. To the extent that all costs, benefits and risks have been robustly valued, this guideline can be applied with more certainty" (p37, HM Treasury, 2003).
- In line with the *Green Book*, Department for Transport guidance for the appraisal of spending proposals provides criteria for judging the VfM of transport projects, based on estimated benefit cost ratios. Subject to non-monetised impacts, a project is judged to be: poor value for money if its BCR is less than 1; low value for money if its BCR is between 1 and 1.5; medium value for money if its BCR is between 1.5 and 2; and high value for money if its BCR is over 2. See: <http://www.dft.gov.uk/about/howthedftworks/vfm/guidanceonvalueformoney>
- In the context of appraisal and evaluation of regeneration and regional development initiatives a broader definition of VfM is evident, including not only efficiency (the comparison of costs and benefits) but also effectiveness (the extent to which objectives are met) and economy (achieving objectives at minimum cost) considerations (ODPM, 2004). This is often referred to as the 'three E's'.
- At the cross-Departmental level VfM is integral to two major initiatives stemming from the 2007 Comprehensive Spending Review - the Operational Efficiency Programme and the Public Value Programme - which focus on efficiency savings that can be made by reform of the public sector (HM Government, 2009).

In the context of National Parks, there can be a number of perspectives on the value they generate. For example: (i) the full economic costs and benefits of spend and policies; (ii) how spending on National Parks delivers public expenditure savings elsewhere (e.g. for example health or pollution); and (iii) how spending on National Parks boosts local economies. A key issue in relation to NPAs is assessing the costs and benefits of their expenditure, with the need to provide evidence that justifies Government funding. From this standpoint the issue is not the VfM of the National Park designation *per*

⁴ The majority of land within National Parks is privately owned, although some areas are owned by public bodies (e.g. NPAs, the Forestry Commission and Natural England) and also independent conservation organisations such as the National Trust and the Royal Society for the Protection of Birds (RSPB).

se, but the VfM of expenditure by NPAs⁵. Within this a certain level of funding is required by NPAs with respect to spatial planning guidance and control in National Park areas⁶, hence the focus in this case study is on the ‘additionality’ of non-statutory spending by NPAs. In particular, establishing how much of the benefits derived from National Parks (e.g. recreation and tourism) is dependent on the management actions of NPAs.

In developing the case study the assessment of VfM is limited to the question of whether ‘benefits’ outweigh ‘costs’ (in terms of expenditure by NPAs). Beyond this assessment, there can be further questions as to whether the maximum benefit is being obtained from expenditure, as well as accounting for questions as to the quality, cost, resource use, fitness for purpose and timeliness of activities and distribution of benefits. Hence, this cost-benefit assessment does not address everything that may be considered within the remit of ‘value for money’, but the basic economic efficiency question is recognised as a key consideration therein.

The approach taken in this case study is to assess the implication of a reduction in Central Government funding, estimating the loss of benefit (the ‘cost’) that may result from reduced expenditure. That is, determining what is the loss of benefit if the level of service X is reduced or if the service is withdrawn completely by the NPA. In cases where the prospective loss of benefit is judged to outweigh savings to public funds, then there is evidence of ‘value for money’ from the continued expenditure.

Peak District National Park Authority

The Peak District National Park Authority (PDNPA) employs approximately 450 staff in a mixture of full time, part time, job share, seasonal, temporary and casual posts, that equate to around 240 full time equivalents. A large proportion of staff is engaged in the statutory functions concerning planning, which for the period 2007-08 saw over 1,200 applications. The Authority is also responsible for managing access to the Peak District National Park, 37% of which is open country under the Countryside and Rights of Way Act 2000 (PDNPA, 2008). A profile of the Park is provided in **Table 1**.

⁵ In reality a designation such as a National Park without a dedicated managing authority has little credibility. While it is recognised that there is indeed a link between the benefits of designation and the benefits of the NPA activities this issue is not explored within this case study.

⁶ Although feasibly responsibility for these functions could be assigned to different or new authorities at local government level.

Table 1: Profile of the Peak District National Park

Total area	1,438 sq km (143,800 ha)
Area open for public access (2005)	524 sq km (52,400 ha; 37% of total area)
Area owned/leased by PDNPA (2003)	61 sq km (6,100 ha)
Total resident population (2001)	37,937
No. of households (2001)	15,949
No. of farm holdings	2,255
Average farm holding size	57 ha
Designated areas (2006)	
- Natura 2000	47,022 ha
- SSSI	50,000 ha
- National Nature Reserve	356 ha
- Environmental Sensitive Area	74,788 ha
Cultural heritage (2006)	
- No. Scheduled Ancient Monuments	457
- No. Conservation Areas	105
- No. Listed Buildings (total)	2,899
Grade I / Grade II* / Grade II	49 / 105 / 2,745
Length of public rights of way (2001)	
- Footpaths	2,459 km
- Public bridleways	293 km
- Other	30 km

Source: PDNPA (2008).

For the period 2008-09, PDNPA (2008) details:

- Central Government funding received by PDNPA was approximately £8 million. This is augmented by income from trading operations (approximately £2.5 million) and grants from other funding sources particularly focused around partnership activities (approximately £2.3 million from European and regional development sources).
- Expenditure on actions concerned with ‘conservation of the natural environment’ was approximately £3.8 million. This includes advice to farmers and land owners on management practices, agri-environment scheme applications and monitoring, conservation activities, coordination of Biodiversity Action Plans (BAPs), and remedial work on SSSI sites both owned by the Authority and in other ownerships.
- Expenditure on actions concerned with ‘conservation of cultural heritage’ was approximately £0.8 million. This includes activities such as archaeological surveys and statutory advice, and awareness programmes.
- Expenditure on actions concerned with ‘recreation management and transport’ was approximately £2.5 million. This includes input to transport scheme inquiries and consultations, promotion of ‘sustainable’ transport, provision of information for National Park visitors (e.g. signage), guided walks, improvements to rights of way (e.g. bridges and replacing stiles). Approximately additional £0.8 million expenditure relates to ‘ranger estates and volunteers’.
- Expenditure on actions concerned with ‘understanding the National Park’ was approximately £3 million. This includes work and contact with local schools and youth groups to promote ‘environmental learning’, managing services and upgrading tourist information centres.
- Expenditure on actions concerned with ‘development control and forward planning’ was approximately £0.9 million. This includes assessing planning applications, development of spatial plans, and activities related to response to consultation concerning mineral and monitoring of quarrying activities⁷.

⁷ The PDNPA has a uniquely high workload on minerals amongst NPAs and this is on a par with the busiest minerals authorities at County level.

- Expenditure on actions concerned with corporate management was approximately £0.4 million.

Overall this illustrates a varied range of expenditure - on both statutory and non-statutory functions - and activities arising from funding of the PDNPA. A number of the activities target specific Government objectives, such as reducing carbon emissions (for example by encouraging cycling as a means of transport), health (e.g. encouraging active lifestyles) and wider community engagement in the natural environment (PDNPA has a target of achieving 60% of volunteers from disadvantaged communities). The Park itself is also a major contributor to the regional economy in terms of gross value added from tourism. This contribution is estimated to be in excess of £100 million (SQW, 2008).

STEP 2: DEFINE THE POLICY GOOD AND AFFECTED POPULATION

What is the good to be valued?

Identifying the policy good

Determining the policy good - that is, the good to be valued - is a key issue with respect to estimating the value for money of National Park expenditure. As illustrated above, the PDNPA provides a multiple set of services that benefit both residents and visitors, and more generally the national population. A key distinction to be drawn is between activities that relate to statutory functions of a National Park Authority and those that are non-statutory. Moreover the implications of a reduction in Central Government funding are likely to differ among different types of activity, with much depending on how resources are allocated across the current 3-year funding agreement from Defra (the current period runs 2008/09 to 2010/11). For instance:

- It is reasonable to assume that statutory functions of the PDNPA (e.g. planning) would not be affected by reduced funding.
- In the short term, expenditure on non-statutory services is the likely prime candidate for reductions. This includes most 'visitor facing' services as well as the land and assets owned by the PDNPA.
- Longer term there is scope to reduce expenditure on external funding grants when current commitments are up for renewal. Current PDNPA examples of external funding agreements include the Moors for the Future⁸ and Live and Work Rural⁹ projects.
- In the short term reduction of staff is not typically viable, but over time there is flexibility to make 'efficiency savings' through limited retirements and staff moving on.

In practice where reductions in expenditure would be made will depend upon the decisions of Board of Members of the PDNPA via the Authority's priority setting process. Overall, these can be achieved in a

⁸ See <http://www.moorsforthefuture.org.uk/mftf/main/Home.htm>. The objective of this project is to restore large parts of Peak District moors. Funding partners include: Heritage Lottery Fund, PDNPA, United Utilities, Natural England, National Trust, Severn Trent Water, Sheffield City Council, Moorland Association, Derbyshire County Council and the Environment Agency. See also eftec (2009) for a case study concerned with restoration of upland blanket bog on the Bleaklow plateau in the Peak District National Park, which includes a number of Moors for the Future sites.

⁹ See <http://www.peakdistrict.gov.uk/index/looking-after/grants/liveandworkrural.htm>. The objective of this project is to provide financial support to businesses and communities within the National Park boundary and periphery for activities that benefit the natural environment. Partners include: PDNPA, East Midlands Development Agency and Derby and Derbyshire Economic Partnership.

number of ways, including: withdrawing service; generating greater cost-recovery for serviced; and finding lower cost ways of delivering services (e.g. through strategic commissioning and partnerships with voluntary, statutory or public sector partners). There is also a limited possibility of direct cost-reduction for example by reducing managers within services.

On the basis of the above, candidate policy goods for the case study could be drawn from:

- Visitor services: this includes visitor centres, the ranger service, and cycle network provision in the Park. These services relate to both market (e.g. sale of guide books and maps, souvenirs, local produce, etc.) and non-market goods (recreation amenity and activities) and associated use direct and indirect use values.
- Assets owned by PDNPA: properties and land owned by the Authority can either be sold or subject to lease management by other organisations (e.g. NGOs or private interests). Here change of ownership or asset manager does not necessarily imply a change in services provided; for example shooting may still continue on an estate. Overall outcomes in terms of use values will be context-specific¹⁰.
- Activities supported by external funding agreements: this includes a number of activities that can be linked to aspects such as environmental improvement, for example via the Moors for the Future project. However, the continued viability of such projects is not necessarily dependent upon the PDNPA's support, except for potentially in cases of match funding¹¹.

Provision of visitor services

From the list above the case study focuses on visitor services since estimation the benefits of these are typical of value transfer applications.

The majority of the Park's visitors come for the day by car from surrounding urban areas, with activities undertaken including short walks, picnicking, sightseeing, visiting towns and villages, going to events, etc. More active recreational pursuits include hiking, cycling and mountain biking, horse-riding or water-based activities. The Park is also popular for activities like climbing, caving and hang-gliding (PDNPA, 2009). Overall, regardless of the type of activity it is likely that most visitors to the Park will benefit from PDNPA expenditure. Some will benefit by directly consuming visitor services (e.g. visiting a visitor centre, cycle hire), while for others services may be consumed more passively with less realisation that a service is being provided (e.g. walking on a maintained footpath). Specific visitor services provided PDNPA as presented in Table 2. The majority of these services are provided year round.

¹⁰ Although largely beyond the scope of this case study and the Value Transfer Guidelines, cost savings to PDNPA are likely to be evident (which is the rationale for leasing or selling) hence this represents the 'value for money' element of leasing or selling.

¹¹ Again, largely beyond the scope of this case study but a key issue in relation to external funding agreements is the benefits of coordination of expenditure and cooperation between organisations, particularly at the regional economy level. With respect to regional economic development, a key concept is that of 'strategic added value' which arises from the coordination of public expenditure (often between multiple organisations) to identify priority issues (for example disadvantaged areas and groups).

Table 2: Visitor services provided by the Peak District National Park Authority

<i>Service</i>	<i>Locations</i>	<i>Details</i>
Visitor centres ¹	Four centres: Bakewell, Castleton, Upper Derwent and The Moorland Centre, Edale	Centres provide information on the National Park, local and national tourist attractions, accommodation, public transport, local events, exhibitions promoting understanding of the Park, and retail areas
Cycle hire	Three sites: Ashbourne, Derwent and Parsley Hay	Cycle hire is available for half days and full days
Footpaths, cycle paths, bridleways and trails ²	National and local trails for walking, cycling and horse riding including the Pennine Way, Pennine Bridleway, Trans Pennine Trail, Limestone Way and Derwent Valley Heritage Way Approximately 60 miles of dedicated cycle trails including High Peak and Tissington	Maintenance of access and routes; e.g. signage, path surfaces, gates, stiles, bridges, as well as drystone walling, fencing and managing woodland
Ranger service	Across the entire Park area	Provision of information and advice to visitors as well as a rescue service and undertaking conservation activities
Ranger guided walks	Across the entire Park area	Approximately 250 free guided walks accessible to all visitors
Volunteer activities	Across the entire Park area	Approximately 10,000 volunteer days via the Ranger service and conservation volunteers
Education activities	Across the entire Park area	Various: contact with local schools, environmental learning activities for young people, youth ranger programme
Car parks, toilet facilities, litter removal, information/interpretation boards	Across the entire Park area	49 car parks in total, pay and display charges in 19 car parks for most vehicle types

Notes: ¹ Not all centres are 100% operated by PDNPA; ² Trails are managed by wardens and rangers employed by PDNPA, Derbyshire County Council, Staffordshire County Council and Severn Trent Water.

The service described in Table 1 cover a mix of market (e.g. cycle hire), non-market and public goods (e.g. recreation and education), and give rise to be consumptive and non-consumptive direct use value benefits. A number of services are provided in conjunction with other organisations (e.g. visitor centres, trails) hence the continuation of these services may not necessarily be reliant on continued funding by PDNPA (but see further discussion below).

Who is the affected population?

The affected population for the policy good in general is the visitor population to the Park who ‘consume’ the services of the PDNPA. While the resident population within the Park is approximately 38,000 people (Table 1), 20 million people live within an hour’s drive of its boundaries. In 1996 the estimated number of visitor days for the Peak District was approximately 20 million (PDNPA, 2008).

As noted above there is a subset of the visitor population who can be identified as directly consuming services provided by PDNPA. These are visitors who visit visitor centres, use the cycle hire services, walk on footpaths, attend ranger guided walks etc. Data on the number of visitors using these services are relatively limited, although estimates of numbers of visitors to visitor centres (approximately 450,000 per year), using cycle hire and guided walks (approximately 35,000 combined in 2008) are available, and are discussed further in Step 3.

Outside of this subset of the visitor population, the experience of all visitors is likely to some extent benefit from the activities of PDNPA. However, establishing the extent of this benefit is difficult given available data. Aside from direct management of areas of the Park (including trails etc.) these benefits also include: long-term conservation and enhancement of the public realm, such as Bakewell Town Centre; community and voluntary sector activities which enhance the visitor experience; and leadership of area-based partnerships such as in the Goyt, Longdendale valley and Upper Derwent where several major service providers (such as Local Authorities, the National Trust and water companies) work together to provide unified visitor management services.

STEP 3: DEFINE AND QUANTIFY THE CHANGE IN THE PROVISION OF THE POLICY GOOD

As detailed in Step 1, the approach of this case study is to assess the implications of a reduction in funding to the PDNPA, which is assumed to result in a reduction in expenditure on visitor services. Such an assessment is dependent on a sufficiency of data and supporting assumptions. It is also recognised that an assessment of this kind is ‘narrow’ in focus, since it sets aside questions as to how resources may be redeployed or how the management of service delivery may be changed to provide the same outcomes more efficiently.

Qualitative assessment

Establishing the change in the provision of visitor services requires a number of assumptions to be made. The basic premise of the case study is that a reduction in Government funding to PDNPA will necessitate a reduction in visitor services, and perhaps the complete withdrawal of some services. On this basis provision changes will likely be a mix of reduction in quality, quantity and/or access and consequential effects on visitors’ experiences; i.e. a reduction in consumer welfare. Following from Table 2, **Table 3** sets out an assessment of the potential effects.

Table 3: Potential implications of reduced expenditure for visitor services provided by the Peak District National Park Authority

<i>Service</i>	<i>Potential implications of reduction in expenditure on service</i>	<i>Potential implications of withdrawal of service</i>
Visitor Centres	Likely to be a quality change: reduced information and awareness exhibitions, reduced opening or availability of services. PDNPA operates centres in partnership	Potential for total loss of service. Other authorities do provide visitor information in the National Park. Other private sector or voluntary organisations focus on their own specific purposes
Cycle hire	As a market good the costs of cycle hire facilities are likely to be met by revenues from the service (and hence unlikely to be subject to a cut in provision). In the case of reduced operation this is likely to be a quality and quantity change: e.g. fewer and older cycles available for hire which may translate to a reduction in the number of 'cycle visits' to the Park. An alternative is to raise prices if expenditure is cut although 'competitors' may benefit from this action. A further option is to change the management arrangement, for example more private sector engagement and investment including links to associated services.	Substitute private hire sites are available so hire facilities will be available within the Park; however if there is a reduced availability of hire facilities this may translate to a reduction in the number of 'cycle visits' to the Park.
Footpaths, cycle paths, bridleways and trails	Likely to be a quality change: reduced expenditure on the management of trails could lead to a lower standard of maintenance. PDNPA is not the only authority that manages trails etc. Also public rights of way are the responsibility of highways authorities.	Access likely to remain but a quality change is probable: potential for trails to deteriorate (e.g. paths, surfaces and associated structures such as bridges). PDNPA is not the only authority that manages trails etc. Also public rights of way are the responsibility of highways authorities.
Ranger service	Likely to be a quality change: reduced availability of rangers to support visitors, reduced conservation activities with consequential effects on recreation, biodiversity, landscape quality and community engagement.	Potential for total loss of service.
Ranger guided walks	Likely to be a quantity change: fewer individuals taking part in guided walks. Quality of service could also be affected; e.g. by 'crowding' of remaining walks which may have an adverse impact on those participants from under-represented groups.	Total loss of service - no guided walk visits.
Volunteer activities	Likely to be a quantity change: fewer individuals taking part in activities - reduction in number of volunteer days. This may impact on other objectives (such as participation in volunteer activities by disadvantaged groups)	Total loss of service - no volunteer days.

Table 3: Potential implications of reduced expenditure for visitor services provided by the Peak District National Park Authority

<i>Service</i>	<i>Potential implications of reduction in expenditure on service</i>	<i>Potential implications of withdrawal of service</i>
Education activities	Likely to be a quantity change: reduced contact with local schools and a reduction in environmental learning activities. Other service providers in the National Park are also involved in education activities (e.g. National Trust, RSPB, water companies, Local Authorities) but in collaboration with PDNPA	Total loss of service - no education activities.
Car parks, toilet facilities, litter removal, information boards	Likely to be a quality change: reduced expenditure on the management of trails could lead to a lower standard of maintenance over time.	Potential for total loss of basic facilities (e.g. information boards, toilets). Parking likely to still be available if access is not restricted.

Overall Table 3 suggests a range potential marginal changes in visitor services, some which are very tangible (e.g. no ranger guided walks), others that are less tangible, particularly in the short term (e.g. the effect of reduced expenditure trails and paths), and others which can be viewed as debatable. For the latter much depends on the alternatives and substitutes that are available. For example, for cycle hire Derbyshire County Council operates a site at Middleton and private companies operate two sites at Waterhouses.

A number of services in the Peak District are jointly provided such as maintenance of footpaths and trails and visitors centres (the Bakewell centre is jointly operated with Derbyshire Dales District Council). This implies that it is not necessarily straightforward to determine what may happen in the event of reduced expenditure or a complete withdrawal of the service by PDNPA. However NPAs are established specifically to provide leadership in such partnerships and without this it is reasonable to assume that service provision would be of lower quantity and/or quality.

Quantitative assessment

Comprehensive data linking estimates of visitor numbers to visitor services is not available, and generally no evidence is available to assess how the service quality and quantity changes indicated in Table 3 may affect visitor numbers. However various sources of information are available that provide a partial indication of likely visitor numbers.

Peak District Visitor Survey

The most recent visitor survey available for the Peak District National Park dates from 2005 (PDNPA, 2005). The survey interviewed approximately 30,000 respondents at more than 20 sites across the Park during 2004-05 and provides a basic profile of visitors (**Box 2**).

Box 2: Profile of visitors to the Peak District National Park (2005 visitor survey)

Results from the 2005 visitor survey include:

- The age of visitors is apportioned fairly equal across the age groups 0-15 years, 25-34 years, 35-44 years, 45-54 years and 55-64 years (around 17% for each). Fewer respondents were in the age groups 16-24 years (6%) and 65+ years (11%).
- The ratio of male to female visitors was approximately 50:50.
- Just over half of visitors to the Park were in employed (56%). The two next largest proportions of visitors were retired (19%) and students (15%).
- 94% of all visitors to the Park classified themselves as White British. The largest proportion of non white British visitors were white Irish/other (3%) followed by Asian or Asian British.
- Around 95% of all visitors were residents of England (based on home postcode) with 2% coming from overseas. Over half of the sample of respondents had visited the Park before (54%) and just over a quarter classified themselves as living locally (29%).
- The largest proportion of day visitors came from postcode areas within the Park (Sheffield, Stockport and Derby) and close by (Nottingham and Oldham). In general the closer to the park the larger the observed proportion of day visitors, although it was found that there was a slight skew towards the East Midlands with more visitors originating from the South East of the Park than other directions. The typical length of day visit was 1 - 2 hours (approximately 40% of day visit respondents). Around 30% of day visitors spent 3-4 hours in the Park. Less than 5% of day visitors spent longer than 7 hours in the Park.
- Visitors staying more than one day were found to come from all over England, Wales and Scotland (the typical length of stay was 2 - 3 nights).
- The purpose for virtually all visits (96%) was leisure and recreation. The most commonly cited reason for visiting was the scenery of the park (85%) and tranquillity (55%).
- Approximately 30% of visitors visited more than one location during the day.
- Approximately 10% of visitors stated they used tourist information centres as a planning aid for their visit. The most common planning aids were previous knowledge of the area (68%), a map (47%) and guide books/leaflets (30%).
- The average spend per visitor was £9.65. Approximately one third of visitors did not spend anything (the average spend per visitor who had spent money was £13.73). The average spend for day visitors only was £3.30 (and £5.21 excluding those who spent nothing). The average spend for staying visitors was £25.72 (and £29.37 excluding those who spent nothing).

No data are available of the number of visits (e.g. repeat visits per year) made by visitors.

Details of activities undertaken by respondents to the 2005 visitor survey are shown in Table 4. A breakdown is provided by visitors to Dark Peak and White Peak, which are the two principal areas in the Park¹², and the Park overall.

¹² Dark Peak is the higher and wilder northern part of the Peak District. It is primarily moorland plateau. White Peak is the lower, southern part of the Peak District.

Table 4: Activities undertaken by visitors to Peak District National Park (2005 visitor survey)

Activity	Total	Dark Peak	White Peak
Stroll / walk less than 2 miles	28%	22%	27%
Walk 2 - 10 miles	53%	51%	54%
Walk more than 10 miles	9%	11%	6%
Climbing / bouldering	4%	6%	5%
Picnic	20%	18%	20%
Sightseeing	29%	25%	36%
Draw / paint / photography	7%	7%	8%
Birdwatching	9%	8%	10%
Cycling / mountain biking	7%	9%	3%
Visit an attraction / place of interest / event	24%	33%	17%
Dog walking	11%	10%	12%
Other	10%	9%	12%

Source: PDNPA (2005).

Use of PDNPA visitor services

Details of the use of PDNPA services are primarily provided by PDNPA (2008) (Table 5). This collates data on a number of indicators related to the Authority's annual performance. For some performance indicators, data is available for 2005/06, 2006/07, and 2007/08. For others only the most recent year is available as these are new indicators.

Table 5: Estimates of PDNPA visitor services users (PDNPA, 2008)

Service	Indicator	Visitor estimate
Visitor Centres	Number of visitors to visitor centres for which PDNPA contributes 50% or more of operating costs ^a	2005/06: 455,389 (no. of visitors) 2006/07: 425,000 (no. of visitors) 2007/08: 465,746 (no. of visitors)
Cycle hire	Number of users of PDNPA recreational facilities ^a	2007/08: 34,830 (no. of visitors) (combined cycle hire, guided walks, campsites)
Footpaths, cycle paths, trails, etc.	No data	No data
Ranger service	No data	No data
Ranger guided walks	Number of guided walks and events Number of participants	2007/08: 288 (no. of walks and events) 2007/08: 2,587 (no. of visitors)
Volunteer activities	Number of users of volunteer opportunities provided by PDNPA through: a) Peak Park Conservation Volunteers b) Part-time rangers	2007/08: 2,555 (a) (no. of days) 2007/08: 7,662 (b) (no. of days)
Education activities	Number of users of PDNPA provided learning opportunities through: a) information b) face to face c) participation and engagement	2007/08: 498,039 (a) (no. of visitors) 2007/08: 13,929 (b) (no. of visitors) 2007/08: 2,555 (c) (no. of visitors)
Car parks, toilet facilities, litter removal, information boards	No data	No data

Notes: ^a Reported by PDNPA (2008) as 'visitors' (no information is available on whether there are multiple visits by a visitor).

Given the available data and information, it is not possible to predict how visitor estimates in Table 3 might change with reduced expenditure on services that result in marginal changes in the quantity, quality or access to services. With the data available the case that is more readily assessable is that of

complete withdrawal of a service (e.g. no ranger guided walks implies no visitors using this service). However, as noted above in some cases complete withdrawal may not necessarily imply that the visitors to the park may not be able to undertake the activity (e.g. cycle hire).

There are also significant gaps in the currently available data. For example the 2005 visitor survey indicates that a substantial proportion of visitors undertake a walking activity (almost 30% reported walking 2 miles or less, approximately 50% reported walking between 2 - 10 miles). On this basis it is reasonable to assume that a significant number of visitors use footpath and trails that are maintained by PDNPA but a documented estimate of numbers is not available. Similarly the majority of visits to the Park are car-based and hence likely to at some point use basic facilities such as car parks, toilets, etc.

STEP 4: IDENTIFY AND SELECT MONETARY VALUATION EVIDENCE

Existing valuation studies

There are no studies available that explicitly estimate the value or ‘added value’ of visitor-based services provided by National Park Authorities or similar. Available evidence is largely drawn from economic valuation literature focussing on the non-market benefits of recreation activities, a substantial amount of which relates to forest recreation. Available studies do however permit for value transfer to be applied in the context of an initial scoping level assessment for estimating the benefits of visitor services provided by PDNPA.

A summary of valuation evidence that provides a broad match to the outcomes associate with visitor services is provided in **Table 6**. Matching of valuation evidence to visitor services is considered in Step 5.

Service	Study	Valuation evidence
Visitor Centres	Christie et al (2000): improvements to recreational facilities in the Grampian region (resident population) Kavel (2006; 2007): recreation benefits of US Parks. A meta-analysis covering over 1,200 value estimates for 25 types of recreation activity	User facilities (toilets, picnic areas, visitor centres): £2 per household per year Visiting and environmental education centre: ~ \$6 per person per day (2006 US \$) (approx. £4 per person per day)
Cycle hire	Christie et al. (2006): improvements to forest recreation facilities for specific user types (recreation visitors)	Cyclists: £15 per visitor per trip
Footpaths, cycle paths, trails, etc.	Christie et al (2000): improvements to recreational facilities in the Grampian region (resident population)	Path maintenance: £5 Upgrading paths: £3 New short paths: £3 New long paths: £2 (all per household per year)
Ranger service	Some studies estimate values for visits to National Parks and upland areas, which in part are made due to recreation, biodiversity and landscape quality which is contributed to by activities of rangers. For example:	

Table 6: Evidence potentially relevant to valuing benefits of PDNPA visitor services users

<i>Service</i>	<i>Study</i>	<i>Valuation evidence</i>
	Euromontana (2005): enjoyment of public benefits associated with uplands Liston-Heyes and Heyes (1999): value of visit to Dartmoor National Park Bateman et al. (1993): preservation of the Yorkshire Dales landscape Benson and Willis (1991): value of visits to the New Forest	UK households: £53 per household per year Day visitors: £13 - 17 per visitor per day Overnight visitors: £4 - 30 per visitor per day Visitors: £25 per household per year Residents (North Yorkshire): £23 per household per year Visitors: £2-4 per visit
Ranger guided walks	Christie et al. (2006): improvements to forest recreation facilities for specific user types (recreation visitors) Zanderson and Tol (2009): Generic recreation benefit from forest recreation visits. A meta-analysis of travel cost studies	Walkers: £15 per visitor per trip Nature watchers: £8 per visitor per trip Visitors: £1 - 98 per trip (mean: £15 per trip)
Volunteer activities	No valuation studies available	-
Education activities	Kavel (2006; 2007): recreation benefits of US Parks. A meta-analysis covering over 1,200 value estimates for 25 types of recreation activity Christie et al. (2006): provision of specific forest recreation facilities (recreation visitors)	Visiting and environmental education centre: ~ \$6 per person per day (2006 US \$) (approx. £4 per person per day) New wildlife centre: £3 per person per trip
Car parks, toilet facilities, litter removal, information boards	Christie et al (2000): improvements to recreational facilities in the Grampian region (resident population) Christie et al. (2006): improvements to forest recreation facilities for general visitor types (recreation visitors) Philip and Macmillan (2006): willingness to pay for car parking in the Cairngorms	Basic facilities (car parks, bins, information boards, signposts): £5 per household per year User facilities (toilets, picnic areas, visitor centres): £2 per household per year Car parking, toilets, picnic area: £9 per person per trip Car parking: £3 - 4 (if hypothecated)

STEP 5: TRANSFER EVIDENCE AND ESTIMATE MONETARY VALUE OF POLICY GOOD

Matching evidence reported in Table 6 to the potential changes in visitors services - resulting from reduced expenditure by PDNPA - set out in Table 3 is not straightforward, with available economic value estimates corresponding to a variety of marginal changes (mostly related to the quality of facilities), the value of specific facilities in situ, and more general values per visits to sites:

- Visitor centres: available studies indicate that relatively low values per visit are associated with facilities such as visitor centres (around £2-4 per visit). Christie et al. (2000) strictly focus on

improvements to largely basic facilities but do include within this a formal visitor centre. Broadly evidence of this type can be applied to assess the implications of a withdrawal of this service.

- Cycle hire: Christie et al. (2006) report values for cycling in the context of forest recreation, which provides a proxy for the benefits of cycling activities in the Peak District National Park. This suggests around £15 per visitor per trip. Market data is also available in relation to the costs of cycle hire with prices ranging between £8 - 30 for a full day depending on the specification¹³. In the absence of valuation estimates (e.g. consumer surplus estimates), prices for hire provide an estimate of the minimum value by visitors on the basis that the benefit from the activity is at least equal to the cost of participating in the activity.
- Footpaths, cycle paths, trails etc.: Available evidence indicates that local resident populations value improvements and maintenance of paths etc. Based on Christie et al. 2000 these values are in the range £2 - 5 per household per year (for improvements in the Grampian region, based on a sample of households in that area). No studies are available in relation to visitors to outdoor recreation sites.
- Ranger service: No studies directly assess the value of benefits provided by ranger services, although some inferences can be made from studies that focus on the conservation of recreation, biodiversity and landscape benefits of National Park and/or upland areas. Most of these studies are from the 1990s, and values vary depending on the sample population (i.e. visitors versus households in general).
- Ranger guided walks: No studies directly assess the value of guided walks in National Parks, although more generally studies suggest that values in the range £8 - 15 per visitor per trip are likely to be appropriate based on walking and nature walking activities (e.g. Christie et al., 2006).
- Volunteer activities: No studies directly assess the value of volunteer activities in National Parks, but some inferences can be made based on a broad assessment of the opportunity cost of volunteer time. For example the opportunity cost of leisure time is often equated to the marginal wage rate. The average weekly wage in the UK is in the region of £450, with the average weekly working hours around 31. This suggests an average hourly wage rate of £15. Assuming 1 volunteer day comprises of 8 hours in total this provides an estimate of £120 per volunteer day¹⁴.
- Education activities: there is limited evidence in relation to the value of education activities. Values reported in Table 4 are similar to those for visitor centres (£2 - 4 per visit).
- Car parks etc.: Reported values for basic visitor facilities are similar to those for visitor centres, footpaths and trails etc. and education visits as detailed above (£2 - 9 per visit). Market data is also available in relation to parking fees charged by PDNPA with a cost of up to £3.50 for a full day parking for cars and minibuses¹⁵.

Taking the above, available evidence suggests that fairly modest, but still positive, unit values are associated with visitor services provided by PDNPA. The available evidence however is indicative of a scoping level assessment providing a broad indication of potential values, rather than precise estimates.

¹³ See for example: <http://www.peakdistrict.gov.uk/index/visiting/cycle/cycle-prices.htm> (for PDNPA hire facilities) and <http://www.visitpeakdistrict.com/activities/cycling.aspx> (for other operators).

¹⁴ Note that these calculations are largely illustrative. Data is sourced from Office of National Statistics (ONS) labour market statistics: <http://www.statistics.gov.uk>. The opportunity cost of volunteering will differ according to factors such as age, employment status, education, skills and experience, etc. Calculations based on the UK average wage may also be inappropriate if activities undertaken by volunteers are better reflected by wage rates in specific sectors (e.g. agriculture, forestry and general land management).

¹⁵ See: <http://www.peakdistrict.gov.uk/index/visiting/parking.htm>

STEP 6: AGGREGATE VALUE OF POLICY GOOD

Estimating the aggregate value of the visitor services provided by PDNPA is limited by the available data and valuation evidence. It is possible, however to aggregate benefits in the context of the implications of withdrawal of service (in contrast to the implications of reduction in expenditure on service). Table 7 sets out the basic calculations.

Table 7: Aggregate estimates of value of loss of visitor services

<i>Service</i>	<i>Loss of service - indicator and visitor estimate</i>	<i>Unit value for loss of service</i>	<i>Estimated loss of annual value</i>	<i>Notes</i>
Visitor centres	Number of visitors to visitor centres: Approx. 450,000 per year	£2 - 4 per visit (assume 1 visitor equals 1 visit)	£0.9m - 1.8m	Visitor estimate based on Table 3 - assume centres that PDNPA contributes 50% or more of funding are closed.
Cycle hire	Number of users cycle hire: Approx. 30,000 per year	£15 per visit (willingness to pay estimate) -£10 - 15 per visit (hire cost) Suggests a small consumer surplus in region of £0 - 5 per visit	No loss - market good with available substitutes	Alternative cycle hire facilities are available that charge a similar price, implying that it is likely that visitors will be able hire cycles from alternative operators with minimal impact on consumer surplus.
Footpaths, cycle paths, trails, etc.	No data (Require estimate of number of users of footpaths etc. per year)	£2 - 5 per household per year	Not estimated	Valuation evidence relates to resident population, not visitors. Estimated loss of annual value is addressed via sensitivity analysis - see Step 7.
Ranger service	No data (Require indicator that links visitor experience to actions of ranger service)	-	Not estimated	Insufficient information and data to estimate loss of value, but potential value of service is addressed via sensitivity analysis - see Step 7.
Ranger guided walks	Number of participants (visitors) in guided walks Approx. 2,500 per year	£8 - 15 per visit (assume 1 visitor equals 1 visit)	£0.02m - £0.04m	Visitor estimate based on Table 3.
Volunteer activities	Number of volunteer days (conservation volunteers and part-time rangers) Approx. 10,000 days per year	£120 per volunteer day	£1.2m	Based on Table 3 and estimate of opportunity cost of volunteer days.

Table 7: Aggregate estimates of value of loss of visitor services

<i>Service</i>	<i>Loss of service - indicator and visitor estimate</i>	<i>Unit value for loss of service</i>	<i>Estimated loss of annual value</i>	<i>Notes</i>
Education activities	Number of learning opportunities provided for visitors Approx. 500,000 per year	£2 - 4 per visit (assume 1 visitor equals 1 visit)	£1.0m - £2.0m	Based on Table 3. There is potential for overlap with the estimate of visits to visitor centres if data is recorded such that this equates to a 'learning opportunity'.
Car parks, toilet facilities, litter removal, information boards	No data	£2 - 4 per visit (willingness to pay estimate) ~£3 -4 per visit (cost of parking where charged) Suggests minimal consumer surplus	Not estimated	Loss of facilities likely to result in loss of consumer surplus (since not all car parks have charges) but available evidence suggests this could be marginal in unit terms. Lack of visitor count data precludes aggregate estimate. Potential value of service is addressed via sensitivity analysis - see Step 7.

A series of assumptions underpin the calculations in Table 7, both in terms of value and visit estimates and also in terms of how withdrawal of a service may result in a loss of consumer surplus. The latter simplify the analysis and are open to debate:

- Visitor centres: PDNPA provides the principal source of free visitor information in the Park, particularly in terms of the opportunities to access the Park and undertake recreation activities. Information in relation to uniqueness of Park, its history, geological features, biodiversity, landscape and cultural heritage potentially overlaps with education services. While alternative sources of visitor information are available, it is assumed that they are not as comprehensive in coverage as provided by PDNPA (nor necessarily free; e.g. guide books) hence withdrawal of this service will potentially result in a loss of visitor consumer surplus.
- Cycle hire: this is a market good with alternative operators providing a substitute service to visitors, although not necessarily at the same location. Prices appear to be reasonably similar across operators hence there is unlikely to be a significant change in consumer surplus resulting from withdrawal of this service by PDNPA and switching of visitors to other operators.
- Footpaths, cycle paths, trails etc.: overall withdrawal of maintenance by PDNPA will have a gradual impact on the 'quality' of trails over time. In the short term the impact is likely to be negligible; longer term there may be a significant impact on access if other organisations do not continue maintenance activities (plus also health and safety considerations), however data is required as to footpath user numbers to estimate the potential loss of consumer surplus (see Step 7).
- Ranger service: to the extent that this service contributes to the overall visitor experience (e.g. maintenance of biodiversity, landscape, cultural heritage, etc.) withdrawal of this service will likely result in loss of visitor consumer surplus. Given available information it is however not possible to estimate this in aggregate, although this could be a substantial value given the estimated number of annual visitors to the Park (in the region of 20 million visits per year, some of which will likely benefit from this service).

- Ranger guided walks: withdrawal of this service by PDNPA will result in a loss of visitor consumer surplus (in terms of a reduction in the number of visitors taking part) assuming that there are no substitutes available.
- Volunteer service: withdrawal of this service by PDNPA will result in a loss of consumer surplus (in terms of a reduction in the number of volunteer days). This is estimated in terms of an assumed opportunity cost of a volunteer day based on details of average wage and hours worked in the UK (see Step 5). Note that substitutes for volunteer activities may be available but they are not considered here.
- Education activities: this likely covers a broad range of learning opportunities but withdrawal of this service is likely to lead to a loss of consumer surplus (assuming no substitutes are available - as detailed in Table 3 other organisation in the area collaborate with PDNPA). It is possible that this visitor estimates for this service overlap with aspects such as visits to visit centres, volunteer activities, and ranger guided walks, and here it is assumed that education benefits to visitors are in addition to benefits derived from these services.
- Car parks etc.: withdrawal of these services are likely to lead to a loss of consumer surplus (e.g. from litter, no maintenance of information boards and signposting). It is assumed that car parks will still be accessible (in this case there could be a gain in surplus with the removal of charges but this would be offset by deterioration of other facilities).

Overall the reported aggregate estimates of loss of annual benefits to visitors from withdrawal of services amounts to approximately £3 - 5 million in total. That is, where data is available, it is estimated that the visitor services provided by PDNPA generate benefits to visitors in the region of £3 - 5 million per year. This estimated range is subject to the caveats detailed throughout Steps 2 - 6 and significantly represents only a partial assessment of the value of visitor services. Within this there is no account for benefits derived from the provision of basic visitor facilities, activities such as maintenance of footpaths and trails and the ranger service. The numbers of visitors per year that are likely to benefit from these excluded aspects from the aggregate calculation could be substantial, implying that even relatively small unit values could result in substantial aggregate benefits; hence therefore the range £3 - 5 million should be interpreted as a conservative estimate.

STEP 7: CONDUCT SENSITIVITY ANALYSIS

Sensitivity analysis provides an opportunity to provide an account for the value of visitor services that are not calculated in Table 6. Here a number of supporting assumptions are required to provide an indication of the likely magnitude of benefits:

- Footpaths, cycle paths, trails etc.: the 2005 visitor survey indicates that a substantial proportion of visitors undertake a walking activity in the Park. Taking this as being representative of all visitors then a ballpark estimate would be that around 50% of visitor days include a recreational walk of some kind (either up to 2 miles or 2 - 10 miles - as described in the 2005 visitor survey). Although somewhat dated, as reported above the number of visitor days to the park is around 20 million day per year. Valuation evidence (Step 4) suggests that households are willing to pay in the region £2 - 5 per year to maintain footpaths. From this basis and taking a conservative estimate (for example, assuming only 5% of visitor walking days are on maintained footpaths) (and crudely equating households to visitors and accounting for average household size) it is possible to estimate benefits

to visitors from maintaining footpaths etc in the region of £1 million per year¹⁶. Although the assumptions are relatively arbitrary this calculation demonstrates that the level of benefit derived from this service is likely to be at least in the same order of magnitude as most of the others estimated in Table 6, and potentially higher.

- Ranger service: to some extent benefits from this service may overlap with other service aspects; for example providing information for visitors and work to maintain footpaths etc. In addition though this service contributes to PDNPA's conservation work in the Park and, in general, much of the public have a preference for preservation for Natural Parks, biodiversity, landscape and cultural heritage, as evidenced by relevant if somewhat dated studies reported in Table 6. On this basis it is reasonable to assume that the conservation activities of PDNPA (which also include advice to farmers, including participation in environmental stewardship schemes) will generate some value to households across the country. As emphasised elsewhere in the Value Transfer Guidelines this value will not be uniform across households, depending on factors such as location and distance from the Peak District, use or expected use of the Park, the availability of substitutes and socio-economic characteristics. However a modest set of assumptions, for example focussing on the 'regional' population (approximately 20 million people live within an hour's drive of the Park¹⁷) and taking a 'low' per unit value for the conservation of the Park (for example £1 per household per year) implies an aggregate benefit of £20 million. A proportion of this value can be attributed to the activities undertaken by PDNPA.
- Car parks etc.: basic facilities provided by PDNPA typically support much of the recreation activities undertaken by visitors to the Park, particularly given that most visits to the Park are car-based (85% of all visits based on 2005 visitor survey). Illustrative calculations similar to those for footpaths etc. set out above could be undertaken. For example 85% of estimated visitor days gives 17 million day visits per year by car. Average group size from the 2005 survey was 3.25, which on a rough approximation gives approximately 5.2 million car visits per year. Assuming 1 car visit equals one household and willingness to pay per visiting household of £2 per visit for basic facilities gives an annual benefit value of £10.4 million per year. Again the assumptions are somewhat subjective but the point is to highlight the potential order of magnitude.

STEP 8: REPORTING

The purpose of this case study is to provide an assessment of the benefits generated by visitor services provided by PDNPA, with a view to determining the 'value for money' of expenditure by the Authority. The analysis is presented at an initial scoping level which attempts to draw together available relevant

¹⁶ For example: 50% of visitor days including a walking activity gives 10 million visitor days. Five per cent of 10 million is 500,000 visitor days using maintained footpaths. Equating a visitor day to a visitor and dividing willingness to pay per household by an approximate average household size of 2 people, gives willingness to pay of £1 - 3.50 per visitor for maintaining footpaths. Aggregating by estimated visitors (500,000) gives a range of £0.5 - 1.3 million per year.

¹⁷ A key point here is the availability of substitutes. Results from the 2005 visitor survey offer some insight where a 'skew' was found with respect to day visitor originating from the East Midlands. Potentially this could be explained by substitute availability. Residents to the north west of the Peak District also have the Lake District relatively close, for residents to the north east there is also the Yorkshire Dales and Moors, whilst for those to the south west there are also northern parts of Wales, for those from the south east (the East Midlands region) there are no substitutes comparable to Peak District.

evidence. In addition it focuses on a subset of services provided by PDNPA that are more commonly subject to value transfer type analysis.

Assessing value for money

Currently Central Government funding received by PDNPA is approximately £8 million per year. Available budget details are not perfectly aligned to the visitor services considered in Steps 2 - 7 but they are funded from 'conservation of the natural environment' (£3.8 million), 'recreation management and transport' (£2.5 million, within which £0.8 million is stated to relate to 'ranger estates and volunteers') and 'understanding the National Park' (approximately £3 million). This totals expenditure of £9.3 million, relying not only on Central Government funding, but also income from trading operations (approximately £2.5 million) and other sources. This figure also covers both statutory and non-statutory functions within these expenditure areas.

Turning to the question for 'value for money', the criteria specified in this case study is that benefits generated by visitor services exceed expenditure by PDNPA on their provision. From Step 6 it is estimated that the visitor services provided by PDNPA generate benefits to visitors of at least £3 - 5 million per year. Taking into account the assessment of services not covered in this estimate - as addressed in Step 7 - it is likely that 'total benefits' are in excess of not only level of funding received by Central Government but the total annual expenditure of PDNPA on all activities (statutory and non-statutory). For example summing estimated annual benefits for different visitor services reported in Steps 6 and 7 can give a value of up to approximately £36 million per year. Compared to Central Government funding, this gives a ratio of benefits to costs of 4:1. While subject to significant caveats, this 'result' indicates that expenditure by PDNPA on visitor services does represent 'value for money', based on a basic cost-benefit and economic efficiency definition of VfM.

Concluding remarks

This case study draws on a variety of data and inevitably highlights gaps and uncertainties in applying valuation to the complex set of visitor services provided by PDNPA. Presenting the analysis as a 'scoping' level implies that, if required for the purposes of policy decision-making, a fuller and more detailed assessment of the VfM of NPA expenditure should be carried out. For this to be possible the data requirements are likely to be significant. In particular this example focuses on more tangible visitor and largely recreation based services, where robust visitor counts and profiles are needed; ensuring sufficiency of data in this regard in a full assessment is paramount. Added to this available valuation evidence relates to recreation in general and corresponds to the context of NPA expenditures in a limited manner. Here there is an opportunity for primary valuation to focus on the outcomes that arise from NPAs activities, this would represent both a substantial step forward in assessing the value for money of NPAs expenditure and would assist also in prioritisation and strategic planning by NPAs in identifying service areas that generate the greatest value to visitors.

Finally, VfM can be interpreted as a broader concept than simply comparing costs and benefits and this should not be overlooked. Beyond economic efficiency, services provided by NPAs such as PDNPA also target other public policy goals such as those related to health (e.g. encouraging active lifestyles) and equity. With regards to the latter PDNPA has a number of initiatives that target disadvantaged and minority groups with the intention of broadening the visitor base of the Park. When assessing the worth of NPA's expenditure outcomes associated with initiatives such as these should also be considered, even if they are not formally quantified in a 'value for money' or cost-benefit calculation.

REFERENCES

- Bateman, I., Willis, K.W. and Garrod, G. (1993) 'Consistency Between Contingent Valuation Estimates: A Comparison of Two Studies of UK National Parks', *Regional Studies* 28, no. 5, 457-474.
- Benson, J.F. and Willis, K.W. (1991) 'The Demand for Forests for Recreation. Forestry Expansion: A Study of the Technical, Economic and Environmental Factors', Occasional Paper No. 39. Forestry Commission, Edinburgh.
- Christie, M., Hanley, N., Garrod, B., Hyde, T. and Lyons, N., Bergman, A. and Hynes, S. (2006) *Valuing Forest Recreation Activities*, Phase 2 Final Report, Report to Forestry Commission.
- Christie, M., Crabtree, B. and Slee, B. (2000) 'An economic assessment of informal recreation policy in the Scottish countryside', *Scottish Geographical Journal*, Vol. 116, Issue 2, 125 - 142.
- Defra (2005) *Duties on relevant authorities to have regard to the purposes of National Parks, Areas of Outstanding Natural Beauty (AONBs) and the Norfolk and Suffolk Broads*, Guidance Note.
- eftec (2009) *Economic Valuation of Uplands Ecosystem Services*, Report to Natural England.
- Euromontana (2005) *Reaping the benefit of Europe's precious places: Policies releasing the potential of mountain and remoter rural areas*, Euromontana, Brussels.
- HM Government (2009) *2009 Value for Money Update*, HM Treasury.
- HM Treasury (2003) *The Green Book: Appraisal and Evaluation in Central Government*, Treasury Guidance, The Stationary Office.
- Kaval, P. (2007) 'Recreation Benefits of U.S. Parks', Working Paper in Economics 12/07, Department of Economics, University of Waikato.
- Kaval, P. (2006) 'US Park Recreation Values (1968-2003): A Review of the Literature', Working Paper in Economics 6/11, Department of Economics, University of Waikato.
- Liston-Heyes, C. and Heyes, A. (1999) 'Recreational benefits from the Dartmoor National Park', *Journal of Environmental Management*, 55, 69-80.
- ODPM (2004) *Assessing the Impacts of Spatial Interventions Regeneration, Renewal and Regional Development: 'The 3Rs guidance'*, Office of the Deputy Prime Minister.
- Philip, S. and MacMillan, D. (2006) 'Car park charging in the Cairngorms National Park', *Scottish Geographical Journal*, Vol. 122:, Issue 3, 204 – 222.
- PDNPA (2008) *Performance and Business Plan 2008/09*, Peak District National Park Authority.
- PDNPA (2007) *2006-11 Management Plan*, Peak District National Park Authority.

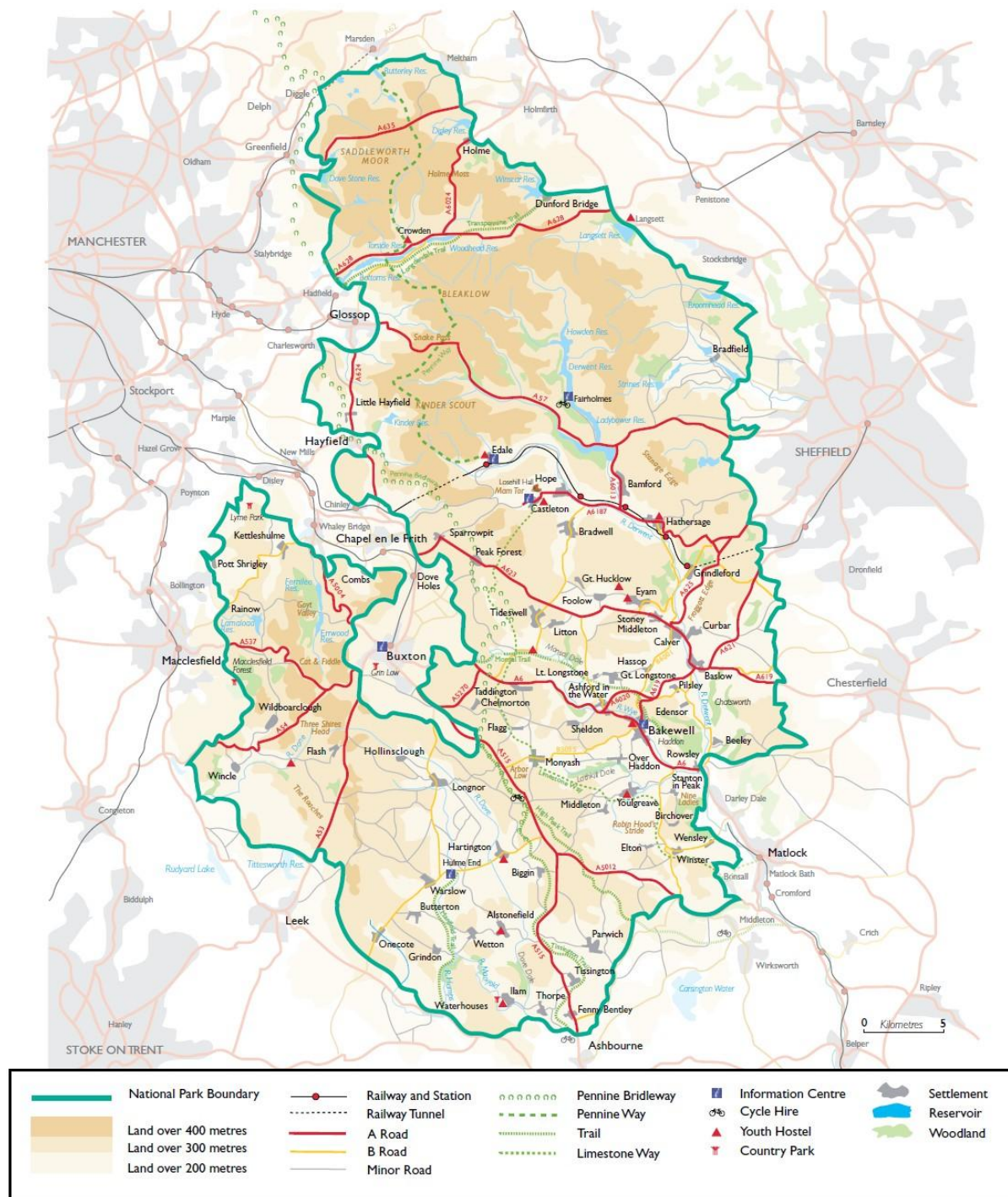
PDNPA (2005) *Peak District National Park Visitor Survey*, Performance Review Research Service, Peak District National Park Authority.

PDNPA (2009) *Active in the Outdoors: A Recreation Strategy for the Peak District National Park 2010 - 2020*, Peak District National Park Authority.

SQW (2008) *Contribution of the Peak District National Park to the Economy of the East Midlands*, Report to East Midlands Development Agency.

Zanderson, M. and Tol, R.S.J. (2009) 'A meta-analysis of forest recreation values in Europe', *Journal of Forest Economics*, Volume 15, Issues 1-2, 109 - 130.

APPENDIX: MAP OF PEAK DISTRICT NATIONAL PARK



Source: PDNPA (2007)