

North York Moors National Park Authority

Measuring Health and Well-being Impact



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Executive Summary

This report calculates the Social Return on Investment (SROI) for the North York Moors National Park Authority (NYMNPA) in respect of its health and well-being impact. SROI measures the social value created when organisations engage in activities and projects that make a difference to individuals and society. In terms of health and well-being, it is increasingly recognised that National Parks such as NYMNPA have a crucial role in connecting people with nature, raising activity levels, facilitating outdoor recreation, and providing space for tranquillity.

The report specifically measures the health and well-being impact on visitors and volunteers, and in respect of DEFRA-funded NYMNPA activity. Therefore, the report does not measure SROI for all possible stakeholder groups and nor does it measure the health and well-being impact associated with activities funded by grants awarded by other bodies such as the Heritage Lottery Fund. Given the short turnaround time for the completion of the report and limits to available data, discrete initiatives - such as those with schools, community champions, explorer clubs, and guided walks - are not measured. This means that, while the SROI stated here is considerable, it is almost certainly an under-estimate.

The report estimates that every £1 invested by DEFRA generates approximately £7 of health and well-being benefits. Future work will be required to evaluate the impact of discrete projects and wider activities to produce an aggregated figure for the overall health and well-being contribution of NYMNPA. This progression from an initial 'conservative baseline SROI figure' to a more comprehensive accounting for impact over time is normal for any SROI process.

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1. Introduction

Academics from The York Management School, University of York, were commissioned to provide an annual figure of the Return on Investment (ROI) of the work of the North York Moors National Park Authority (NYMNPA) in respect of its health and well-being impact. The figure was to be calculated via a desk-based study, employing data already collected and available within the authority. The result is an estimate quantifying the health and well-being impact of the authority.

What follows describes: how that baseline was calculated, the resulting ROI figure, caveats, and recommendations for improving the reliability of future estimates. The baseline figure provided in this report is a conservative estimate based on the available data. Where data was not available or estimated, we have erred on the side of caution and adopted a prudent approach to calculate the ROI.

The report opens by describing the background and policy context for the calculation, before discussing what might be understood by concepts such as 'well-being'. The Social Return on Investment (SROI) methodology used to develop the calculation is then described, before a detailed account of the calculation is provided. We conclude with a consideration of 'next steps'.

1.1 Background to the report

Social Return on Investment (SROI) measures the social value created when organisations engage in activities and projects that make a difference to individuals and society. SROI analyses do not just seek to place a value on the changes that activities and projects bring about, but also provide a contextual narrative to describe the changes and outcomes experienced by stakeholders connected to the organisation. Measuring social value presents some challenges as it requires monetary values to be attributed to outcomes associated with social change where market values do not exist.

North York Moors National Park Authority (NYMNPA) is commencing a process of understanding the social value generated by its activities by reference to the impacts it has upon health and well-being. The benefits of natural environments to health and well-being are now widely acknowledged and National Parks are central to government agendas in this respect (see section 1.2).

NYMNPA has not previously undertaken an SROI analysis. It is common for organisations undertaking a 'first-time' SROI to place boundaries around the analysis and, as a complex organisation undertaking multiple activities, NYMNPA has not sought to evaluate the SROI for all stakeholders and activities. Therefore, whilst an initial quantification of SROI for NYMNPA is provided in this report, it is essential to recognise this is a preliminary SROI estimate. The scope of the SROI analysis is discussed later in the report (see section 2).



The intention is NYMNPA will build on this foundational SROI analysis to embed processes that will facilitate more comprehensive SROI analyses in future years. NYMNPA also anticipates this preliminary SROI analysis will initiate conversations with other National Park Authorities (NPA) to assess the feasibility of developing best practice guidance for SROI analysis in the context of NPAs.

Our natural environment is our most precious inheritance. The United Kingdom is blessed with a wonderful variety of natural landscapes and habitats ... Connecting more people with the environment will promote greater well-being.

Spending time in the natural environment – as a resident or a visitor – improves our mental health and feelings of wellbeing. It can reduce stress, fatigue, anxiety and depression. It can help boost immune systems, encourage physical activity and may reduce the risk of chronic diseases such as asthma. It can combat loneliness and bind communities together.

HM Government, A green future – our 25 year plan to improve the environment (2018, p.4 & p.71).

1.2 Policy context

Improving health and well-being is increasingly recognised as important both for individuals and society. This recognition is reflected in its centrality to government policy; for example, HM Treasury's *Green Book* (last updated 2018) directs government departments how to evaluate policies using cost-benefit analyses "based on the principles of welfare economics – that is, how the government can improve social welfare or wellbeing, referred to in the Green Book as social value" (p. 5). In 2010 the National Wellbeing Initiative was established and the Office for National Statistics (ONS) now measures personal well-being in the UK. The government 'Remit Letter to Public Health England (PHE)' for 2017-18 underscores that one of PHE's priorities is to "secure the greatest gains in health and wellbeing" (PHE Remit Letter 2017-18, p.4). Further, there is recognition that health and well-being impact on one another and the relationship is two-way (see, for example, Department of Health, 2014).

In terms of health and well-being and National Parks, such as NYMNPA, it has been increasingly recognised they have a crucial role in connecting people with nature, raising activity levels, facilitating outdoor recreation, providing space for tranquillity, and encouraging a more diverse visitor mix, while also supporting local economies and national tourism (DEFRA, 2010, 2016; NPE & PHE, 2017).

Human well-being is intimately connected with our natural environment. Evidence ... supports what many feel instinctively: regular opportunities to experience nature have positive impacts on mental and physical health, learning and relationships between neighbours. Nature can benefit us at all stages in our lives.

DEFRA, The natural choice – securing the value of nature (2011, p. 12).

The sheer breadth of National Park Authority (NPA) activity has been summarised thus:

“NPAs also help to enhance the delivery of ecosystem services that are valued by society and contribute to wider well-being. A variety of provisioning, regulating, cultural and supporting services are supported by the high quality ecosystems of National Parks. These services are harder to value but nonetheless provide economic benefits in a number of different ways including: underpinning economic activities such as farming, forestry, extractive industries, tourism and recreation; reducing costs to society by improving our health, sequestering carbon, and purifying our water; enhancing the well-being of people and communities by providing recreational experiences, tranquillity and fine views; and maintaining a liveable environment by regulating climate, air quality, soils and water cycles. NPAs are active in improving water quality, reducing the impacts and costs of floods, and reducing Greenhouse Gas emissions, amongst other initiatives. These help to maintain a healthy environment in which people can live, work and do business” (Silcock et al. 2013, p.iv).

There is also a growing conviction that our National Parks should play a central role in social cohesion whilst improving health and well-being. Evidence for such potential is to be found in a 2014 Health Equity review which posits there is “significant and growing evidence on the physical and mental health benefits of green spaces” (Balfour & Allen, 2014, p.4) such as those provided by National Parks. Benefits include better self-rated health, lower body mass index scores, reductions in overweight and obesity levels, improved mental health and well-being, and increased longevity in older people (see also, HMG/DH, 2011). The report concludes people from all social groups will benefit from increased access to green space, while encouraging group activities has the potential to improve community cohesion and lessen social isolation. The report also notes that those living in areas of highest deprivation (and thus, arguably, in greatest need) have least access to such spaces.



Building on this knowledge, the 'DEFRA National Parks: 8-point plan for England 2016 to 2020' sets a range of targets for National Parks with those requirements most closely associated with health and well-being including (DEFRA, 2016):

- Double the number of young people to experience a National Park as part of National Citizen Service by 2020.
- Produce new materials for schools to connect learning with the National Parks in conjunction with the Department of Education.
- Ensure National Park Authorities engage directly with over 60,000 young people per year through school visits by 2017/18 (just 10% of school children have access to outdoor learning).
- Encourage more diverse visitors to National Parks (see below).
- Promote volunteering in National Parks.
- Promote innovative schemes for National Parks to serve national health.
- Realise the immense potential for outdoor recreation in National Parks (while only a small percentage of the populace reside in National Parks approximately 50% of the population live within 1 hour's travel of a park).

While many of the targets listed in the 8-Point plan go beyond a concern with health and well-being per se, they often overlap or connect to individual, community or societal well-being. An example of the overlap is to be found in the requirement to drive up tourism in a manner that is sustainable, but also benefits the health and well-being of local communities within parks (DEFRA, 2010; 2016). This reflects the acknowledged role of communities in securing Park purposes such as “conserving and enhancing natural beauty, wildlife and cultural heritage and supporting vibrant, healthy and productive living” in respect of which there is a requirement to “foster the economic and social well-being of local communities within the National Park” (DEFRA, 2010, p.18). In similar vein, work with schools traverses a concern with educational attainment, environmental awareness, physical activity, discipline, social mobility and health-oriented lifestyle choices.

While there is discretion in how NPAs work toward the targets, Fenton & Hamblin (2016) note that NPA initiatives to improve well-being tend to focus on:

- Walking programmes.
- Efforts to gradually increase exercise.
- Outreach programmes to those with accessibility issues.
- Working with GPs and other health care organisations.
- Working with schools.
- Investment in capital projects such as paths and cycle ways.
- Economic development.
- Volunteering opportunities that encourage physical activity, social interaction, confidence and a sense of purpose.

Whilst examples of work in all of the above areas can be found in the North York Moors National Park there has, to date, been little systematic attempt to measure or quantify the contribution such initiatives make to improving health and well-being in this or any other National Park (Silcock et al., 2013). This gap in knowledge is understandable given the scale, depth and breadth of the work undertaken by organisations such as NYMNPA – one of the largest NPAs covering 143,000 hectares with a population of approximately 24,000 and attracting 7.93 million visitors annually to an area dominated by agriculture, forestry and fishing (44% of businesses according to Silcock et al., 2013). More pragmatically, no single figure or calculation can hope to capture (let alone explain) the social return on investment afforded by such authorities. With this in mind, the following report seeks to initiate a process of measuring and explaining the health and well-being impact of NYMNPA focusing on two key areas of activity within the park: visitors and volunteering.

DEFRA National Parks: 8-point plan for England 2016 to 2020

8. Health and wellbeing in National Parks

Promote innovative schemes for National Parks to serve national health.

Realise the immense potential for outdoor recreation in National Parks.

DEFRA (2016, p. 4.)

1.3 What is Social Return on Investment (SROI)?

It is increasingly acknowledged there are benefits to recognising and measuring the changes brought about in people's lives as an outcome of the different activities organisations engage in. The Social Return on Investment (SROI) framework has been developed to calculate this social value created by organisations.

SROI analyses are based on a set of seven principles (see figure 1). The principles ensure the focus is on: understanding how stakeholders have experienced change, adopting a consistent approach to the analysis, and ensuring it is fully evident how the analysis has been performed and what assumptions have been made (certain assumptions are inevitable where we attempt to ascribe a monetary value to that which is largely intangible).

The principles also seek to ensure that a prudent approach to calculating SROI is adopted and it is useful to emphasise that throughout this report this principle has been adhered to.

Figure 1: The seven principles of SROI

1. Involve stakeholders
2. Understand what changes
3. Value the things that matter
4. Only include what is material
5. Do not over-claim
6. Be transparent
7. Verify the result

Social Value International, The seven principles of SROI (p. 3).

Adoption of these seven principles also ensures SROI is not undertaken solely to establish a financial value. The intention is the SROI report for any organisation will provide an account of the "story of change" their activities have brought about and, accordingly, the narrative sections of the report are as important as the SROI calculations.



To achieve this the stages in an SROI analysis comprise:

- Identifying which stakeholder groups have experienced change because of the organisation's activity(ies).
- Identifying and measuring the changes resulting from the activity(ies).
- Placing a value on the most important changes.
- Verifying the changes are a result of the organisation's activity(ies).
- Calculating the SROI by comparing the costs incurred to make the activity(ies) happen to the value created by the activity(ies).
- Reporting on the SROI analysis and embedding SROI processes for future years.

An account of social value is a story about the changes experienced by people. It includes qualitative, quantitative and comparative information, and also includes environmental changes in relation to how they affect people's lives.

Social Value International, The seven principles of social value (p. 2).

2. Scope of the report

2.1 Scope

The report evaluates NYMNPA SROI for the one-year period 2017-2018 with the caveat that some data has had to be incorporated that relates to earlier periods. The introduction to the report notes that this is a 'first-time' SROI for NYMNPA; additionally, it has been undertaken within a limited timeframe. Consequently, boundaries have necessarily been placed around the analysis as follows:

- It does not examine all NYMNPA activities (see 2.2).
- It evaluates health and well-being outcomes only for a very limited number of stakeholder groups (see 2.3).
- It utilises existing NYMNPA data sources (a desk-based review, with no new data collection).

Therefore, as noted in the tender document, the SROI framework is being used in modified form. However, whilst these boundaries limit the degree to which the SROI principles can be fully implemented, the report has been prepared following the SROI methodology as closely as possible and fully embraces the ethos that should underpin any SROI analysis.

NYMNPA may build on this foundational SROI to embed processes that will facilitate more comprehensive analyses in future years. Consequently, the current SROI analysis has been valuable for identifying future outcomes data collection requirements and for initiating conversations regarding how best NYMNPA staff might conduct SROI analyses in future years. Further, it will position NYMNPA such that, if desired, it can engage with other National Park Authorities and/or DEFRA to develop best practice guidance for SROI analysis in the context of NPAs. In this way NYMNPA can play a lead role in SROI analysis for National Parks in the UK and, potentially, in other countries.

Later sections of the report set out the different parts of the SROI calculations. It is worth reiterating that, by limiting the analysis to a proportion of NYMNPA's activities and stakeholder groups, this suggests the SROI report is likely to be under-estimating the social value NYMNPA has created over the period. This conservative approach is necessitated by the need not to over-estimate the impact of the Authority's activities (over-estimation could lead to charges of misleading members, policy-makers and other key stakeholders to the detriment of NYMNPA).

2.2 Activity identification

NYMNPA engages in a wide array of activities and projects (see table 1 for examples) which have the potential to positively impact on health and well-being impact for stakeholders. It was not feasible to undertake SROI analyses for all activities and projects given data (un)availability and the short timeframe for compiling the report. In consultation with NYMNPA, the decision was to limit the scope of the report in respect of activity analysed.

The government, through DEFRA, provide NYMNPA with a National Park Grant (£4,235,000 in 2017-18) which is to enable National Parks such as NYMNPA to meet two statutory purposes as established in The Environment Act 1995:

1. Conserve and enhance the natural beauty, wildlife and cultural heritage.
2. Promote opportunities for the understanding and enjoyment of the special qualities of national parks by the public.

These statutory purposes are fundamental in determining national park activities and require NYMNPA to balance “conservation and public enjoyment” in accordance with the Sandford Principle. It was agreed that the focus of the report would be on the “public enjoyment” (recreation) aspect of NYMNPA activities. The NYMNPA Management Plan recognises this as a ‘core’ activity with the special qualities of the North York Moors attracting significant numbers of visitors “seeking recreation and spiritual refreshment” (NYMNPA Management Plan, 2016, p. 12). The centrality of visitors-recreation to NYMNPA is also signified by there being greater amounts of data available for this aspect of the park’s work than for other activities.

Accordingly, it was decided that activities funded by grants awarded by bodies other than DEFRA should not be included in the analysis; therefore, for example, the Heritage Lottery Funded ‘Land of Iron’ project falls outside the scope of the report. This has the implication that the social return calculated in the report is the social return generated solely in respect of the DEFRA National Park Grant investment (see section 4). With regard to this, it is useful to note the DEFRA National Park Grant represents the major part of NYMNPA income; for example, the 2016-17 DEFRA National Park Grant represents c.83% of total grant income (NYMNPA, Annual Report 2016-17, p. 46). SROI calculations for ‘non-DEFRA’ activities may form part of future NYMPA SROI analyses.



It is important to recognise government obligations for National Parks (for example, as set out in DEFRA's, 2016, National Parks: 8-point plan for England) go significantly beyond the two statutory purposes. These broader requirements are reflected in the NYMNPA Management Plan and NYMNPA activities such as schools outreach, increasing accessibility and traditional skills development are, at least in part, a product of these broader requirements. These (and many other) activities are of great importance in the work of NYMNPA and restricting the scope of the report to the recreation aspect of NYMNPA is simply to facilitate undertaking this first-time SROI. As an undetermined portion of the DEFRA National Park Grant is used to fund these activities this has a significant implication for the SROI as calculated in this report. Namely, omitting to calculate an SROI for these activities implies the social return it is estimated NYMNPA is generating on the DEFRA National Park Grant funding is very likely to be an underestimate.

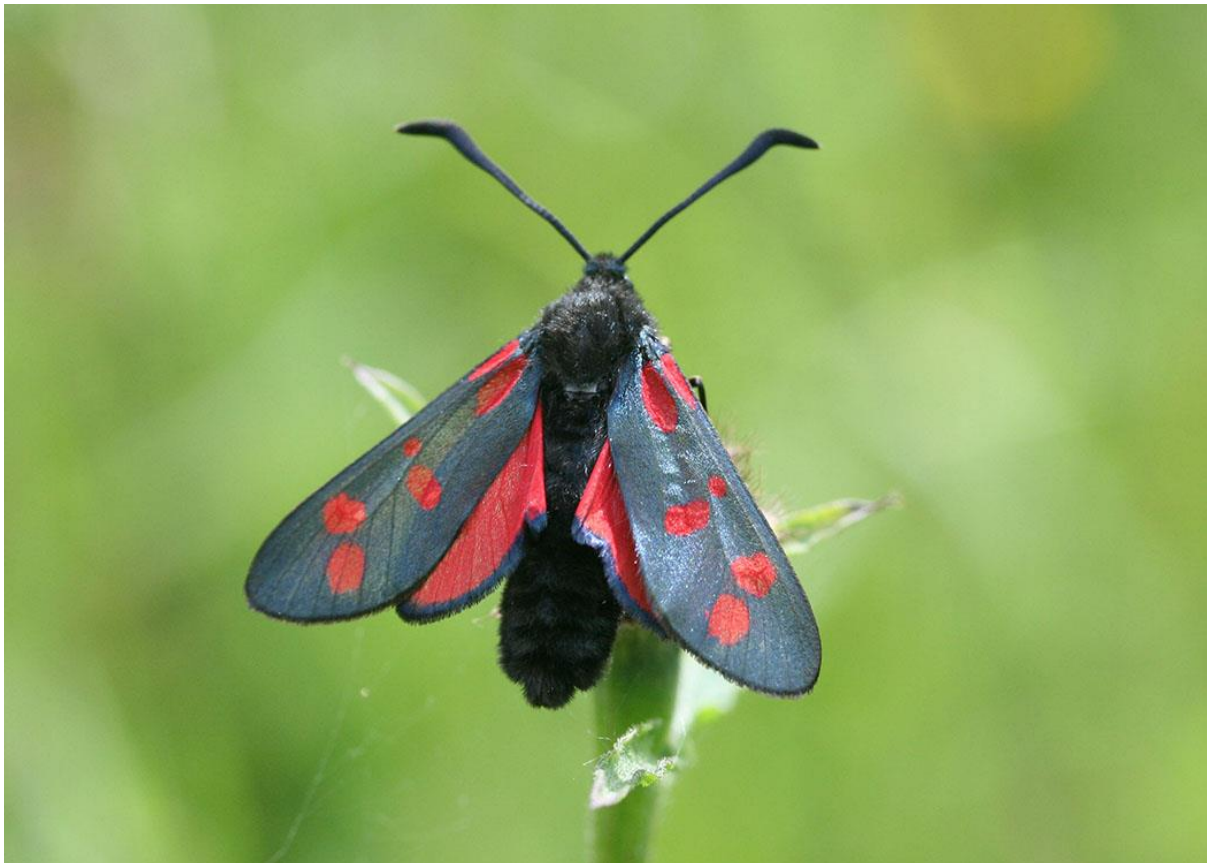
Table 1: Examples of NYMNPA projects and activities (for potential future SROI inclusion)

- Enabling Community Champions in least advantaged communities in the Tees Valley to bring groups to NYMNP.
- Supporting family groups to become Explorer Club members.
- An extensive and inclusive range of volunteer programmes including conservation, walk leaders, Rangers and Young Rangers.
- Providing 'A Breath of Fresh Air' guided walks.
- Schools outreach and education.
- Land of Iron project.

2.3 Stakeholder selection

Key to any SROI analysis is identifying who might experience change as a result of the organisation's activities. There are a wide range of stakeholders who might experience a change in health and well-being as a consequence of NYMNPA activities and table 2 provides examples of some stakeholder categories potentially applicable to NYMNPA. In the previous section it is noted it is not feasible to undertake SROI analyses for all activities, and the scope of the report is necessarily restricted to the recreation aspect of NYMNPA. For the same reasons set out in section 2.2, it is also not practicable to assess the health and well-being impacts for all categories of NYMNPA stakeholders.

Consequently, and in consultation with NYMNPA, the decision was taken to focus only on two stakeholder groups: volunteers and visitors.



Two factors influenced the selection of these two stakeholder groups for the SROI analysis. First, they are significant in the context of the work and mission of NYMNPA. Self-evidently, visitors are fundamental when analysing the “public enjoyment” (recreation) aspect of NYMNPA activities whilst volunteers make an immense contribution to a wide range of facets of the work of NYMNPA. Indeed, it is notable that, of all UK National Parks, NYMNPA has the largest contribution of volunteers (NYMNPA Volunteering Strategy, 2015) with 9,066 volunteer days recorded in the period 2017-18. Hence, it was decided visitors and volunteers should be selected, with it being judged the health and well-being impacts in relation to the two groups were likely to be material to the SROI calculation.

The second factor influencing the stakeholder group selection concerns the remit for this SROI analysis was that it should be desk-based, utilising existing data already collected by NYMNPA. Greater amounts of data were available for assessing the potential health and well-being impacts for these two stakeholder groups in comparison to other stakeholders.

Table 2: Examples of NYMNPA stakeholders

- School children
- Teachers
- Members of least advantaged communities
- Community champions
- Families
- Local community-based organisations
- Local businesses
- Volunteers
- Visitors
- NHS

It is important to emphasise there is no intention to suggest that other stakeholder groups are of less importance to NYMNPA. Other stakeholders were not included in this first-time analysis solely because of the constraints related to data availability and the short timeframe. The non-inclusion of other stakeholder groups has an important implication for the SROI calculation; namely, limiting the analysis to just two stakeholder groups implies an under-estimation of the SROI. This under-estimation is in addition to the under-estimation caused by restricting the SROI analysis to one activity as noted in section 2.2 above.



One of the principles of SROI analysis is that stakeholders should be involved (see figure 1). This is beneficial in ensuring stakeholders can contribute directly to the process and can have the opportunity to articulate what matters to them when ‘engaging’ with the organisation. The methods for involving stakeholders can vary according to the type of stakeholder group although the SROI Network *Guide to Social Return on Investment* (2012) acknowledges that “lack of time or resources may mean that some information has to come from existing research with ... stakeholders” (p. 25). We noted in section 2.1 that for this SROI analysis the SROI framework is being used in modified form and, therefore, not directly involving stakeholders is a key boundary in the analysis. It is important to highlight two matters in this respect. First, the intention is future NYMNP SROI analyses will follow this principle of involving stakeholders. Second, in preparing the report the authors sought to meet with the two stakeholder groups but due to time constraints were unable to do so.

3. NYMNPA health and well-being impacts: what changes for visitors and volunteers?

This section of the report describes the health and well-being impacts for visitors and volunteers that result from their interactions with NYMNPA. More specifically, it explains the principal changes in health and well-being that have arisen for the visitors and volunteers because of NYMNPA recreation activity.

Commonly, SROI practitioners would refer to this as the ‘theory of change’ for visitors and volunteers. The adoption of the term ‘theory of change’ can be unhelpful, or potentially misleading, as SROI analyses are identifying the *actual* changes that are brought about by the organisation and experienced by its stakeholders; they are not concerned with identifying *theoretical* changes. Therefore, the stakeholders need to self-identify these *actual* changes according to their experience of the organisation. The SROI Network explains how the ‘theory of change’ sits within the broader SROI framework in the following way:

“Organisations ... use certain resources (*inputs*) to deliver activities (measured as *outputs*) which result in *outcomes* for stakeholders ... this relationship between inputs, outputs and outcomes is called a theory of change.” (The SROI Network, A guide to social return on investment, p. 29).

Sections 3.2 and 3.3 (below) discuss health and well-being changes (outcomes) from the perspective of NYMNPA volunteers and visitors respectively. To provide context for these discussions of the stakeholders’ outcomes the report initially outlines the concept of well-being in section 3.1.



3.1 The concept of well-being

The 1948 declaration of the World Health Organisation (WHO) that “(h)ealth is a state of complete physical, mental and social well-being” (WHO, 1948, p.1) is considered ground-breaking in widening understanding that health should be understood by reference to well-being. Significantly, this declaration is seen as the beginning of the move away from health being thought of as “absence of disease” (ibid).

Well-being is a subjective concept and connected to the extent a person is satisfied with their life. It is usually conceptualised from two angles: (1) how happy does someone feel? (referred to as the hedonic perspective) and (2) how meaningful does their life feel? (referred to as the eudaimonic perspective) (Bowling, 2017). A wide range of questionnaires and scales have been developed to measure well-being. For example, the government commenced a national well-being programme in 2010 and now measures the nation’s well-being by reference to 10 domains. One of these domains is ‘Personal Well-being’ and, on a scale of 1 to 10, people answer four questions:

- Overall, how satisfied are you with your life nowadays?
- Overall, to what extent do you feel the things you do in your life are worthwhile?
- Overall, how happy did you feel yesterday?
- Overall, how anxious did you feel yesterday?

The New Economics Foundation (nef) has proposed that well-being should be “thought of as the dynamic process that gives people a sense of how their lives are going, through the interaction between their circumstances, activities and psychological resources or ‘mental capital’” (nef, 2009, p. 18). This has the implication that we should consider well-being as a broader concept than ‘life satisfaction’. This has resulted in nef creating a framework which encompasses personal well-being and social well-being. Personal well-being and social well-being are, respectively, concerned with the individual’s “sense of positive functioning in the world” and “experiences of supportive relationships and sense of trust and belonging with others” (p. 4).

The recent focus on well-being has led to a wide range of organisations providing advice on how individuals can improve their well-being. For example, the NHS recommends *Five steps to mental wellbeing*:

- *Connect* – connect with the people around you: your family, friends, colleagues and neighbours.
- *Be active* – you don't have to go to the gym. Take a walk, go cycling or play a game of football. Find an activity that you enjoy and make it a part of your life.
- *Keep learning* – learning new skills can give you a sense of achievement and a new confidence.
- *Give to others* – even the smallest act can count, whether it's a smile, a thank you or a kind word. Larger acts, such as volunteering at your local community centre, can improve your mental wellbeing and help you build new social networks.
- *Be mindful* – be more aware of the present moment, including your thoughts and feelings, your body and the world around you. Some people call this awareness "mindfulness".



Given the above, it is logical a growing number of studies examine the connections between well-being and volunteering (see, for example, Aked, 2015) and well-being and visiting natural environments (see, for example, White et al., 2017). Studies such as these illustrate the different ways in which volunteering and visiting National Parks can positively impact on self-reported levels of life satisfaction as related to well-being.

3.2 Change from the perspective of volunteers

Why volunteer for NYMNPA?

“Essentially to give something back to the National Park in ‘payment’ for more than 40 years of enjoyment of the wonderful countryside and coast that the area affords. Also, to be able to mix with like-minded people in a wonderful outdoor environment whilst at the same time partaking in often strenuous physical activity which I believe is good for both my mental and physical well-being.”

Quote from NYMNPA volunteer survey 2016-17.

The vision underlying NYMNPA volunteering strategy is that: *People of all abilities and backgrounds and from all walks of life will be able to gain fulfilment through contributing to every aspect of the Authority’s work* (NYMNPA Volunteering Strategy, 2015). To understand the volunteer perspective NYMNPA meet regularly with volunteers and every year a volunteer survey is performed. The most recently available survey results were for 2016-17 and the feedback has been used to identify the principal health and well-being impacts that volunteers have self-identified. The survey was completed by 105 volunteers and, therefore, the sample size appears sufficient given the relatively high degree of commonality in the responses. Ideally, the survey would ask volunteers to identify the extent to which their health and well-being has changed through their involvement with NYMNPA as this would better align with an SROI methodology; however, the survey may be adapted for future years.

The principal health and well-being impacts arising out of volunteering identified in the survey are:

1. Expanding social contacts and friendships through meeting like-minded people.
2. The sense of satisfaction derived from giving back to the community. This is associated with increased self-esteem which results from engaging in volunteering for activities that are valued and worthwhile.
3. Health benefits are derived from walking and working outdoors, and engaging in physical activity.
4. Enhanced engagement that results from developing new skills and acquiring knowledge about the park, the countryside and wildlife.

NYMNPA volunteer quotes

“I enjoy being part of a generally well-respected group and is well thought of by the public. It allows me to spend time outside and meet and inform people about the value and importance of our wonderful natural environment.”

“Enjoyment, keeping fit, learning new skills, making a difference, helping the environment, feeling good, working outside.”

“I also enjoy the variety of tasks we do in my group and volunteering has taken me to areas of the park I wouldn’t normally have visited. It’s also interesting to learn about the wildlife and the plants and I enjoy the conservation aspect of the tasks. Lastly, although I didn’t join for the social aspect I have come to appreciate that too.”



“To give something back. Because I enjoy being out in such a wonderful place. Because I enjoy working with the like-minded people.”

“Everyone who volunteers are equal as no one gets paid and most look at it as payback time. You do as much or as little [as you want] as long as you contribute, and our reward is satisfaction, and the knowledge that you are helping your fellow man [sic] to enjoy and appreciate the countryside at its very best. Money can’t give you that.” *NYMNPA volunteer survey 2016-17.*

3.3 Change from the perspective of visitors

NYMNPA conducts a substantive visitor survey every 5 years and most recently this was conducted in 2016. The survey, conducted by an external organisation across 7 interview sites and with 649 interviews undertaken, has been used to identify the principal health and well-being impacts for visitors. As was also noted in section 3.2 in respect of volunteers, the visitor survey was not undertaken for the purposes of an SROI evaluation and this does place limitations on the analysis. Health and well-being impacts have had to be inferred from the survey responses and two further and important limitations should be noted. First, the visitor stakeholder group is a very broad classification which might usefully be sub-divided in future years to more fully align with an SROI methodology. Second, it is difficult to ascertain the degree of health and well-being change experienced by individual visitors interviewed.

The principal health and well-being impacts identified from the survey in respect of visitors to NYMNP are:

1. Health benefits are derived from physical activity undertaken when visiting the park including walking, cycling and water sports.
2. Well-being benefits are derived from visiting associated with the natural environment of NYMNP and include feeling calmer, happier and that life is more worthwhile.
3. Enhanced engagement results from acquiring knowledge about the special qualities of the park.

In respect of the second health and wellbeing impact for visitors it is useful to note the following. Natural England's *Monitor of Engagement with the Natural Environment* (2017) report finds a significant percentage of people visiting natural environments derive benefits that are associated with well-being such as feeling calmer, refreshed and revitalised. Research, such as White et al. (2017), links visiting natural environments even more specifically to well-being and concludes visiting nature can result in individuals assessing their lives as more worthwhile and that they are happier.



4. Investment in the activity

NYMNPA requires investment to accomplish the recreation activity and to fulfil the statutory purpose of public enjoyment of the park. Therefore, this section identifies the investment made by stakeholders regardless whether this is a monetary or time-based contribution. Further, these inputs are valued to ensure the full cost of the activity is transparent.

The NYMNPA receives a DEFRA Grant to fund its activities which in 2017-18 was £4,235,000. Section 2.2 explains NYMNPA has other sources of income (for example, Heritage Lottery Funding) which fund specific projects and activities. As the scope of the SROI is restricted and only considers the recreation activity of NYMNPA then it is appropriate only the DEFRA Grant is brought into the calculation.



The DEFRA Grant funds activities beyond the recreation activity - for example, schools outreach activities and working with least advantaged communities in the Tees Valley – which are outside the scope of this first-time SROI analysis. Therefore, it would have been valid to have only included that part of the DEFRA Grant relating to recreation activity. However, as it is difficult to ascertain the proportion of the DEFRA Grant attributable to recreation activity then, for the purposes of this report, it was considered appropriate to include the full amount of the DEFRA Grant. *Whilst this overstates the investment it ensures NYMNPA is not over-claiming in respect of its SROI calculation.*

The other significant investment is the time provided by volunteers. This needs to be valued as the recreation activity could not be undertaken to its current extent without this input. The number of volunteer days recorded by NYMNPA in the 2017-18 period is 9,066 days. There are different ways to value these volunteer days with the two most common valuation methods being:

1. Value using the National Living Wage.
2. Value using an equivalent average hourly rate according to the task(s) undertaken by the volunteer.

Method 1 has been adopted for the SROI calculation. The rationale for adopting method 1 is that method 2 is complex given the number of NYMNPA volunteers and the wide range of tasks undertaken by volunteers, and the difference in valuation between the two methods is not likely to be material.

The total invested amounts to £4,735,000 as detailed below:

Stakeholder	Description	Valuation basis	Amount (£)
DEFRA	DEFRA Grant	Actual grant for 2017-18 period	4,235,000
Volunteers	9,066 volunteer days	National Living Wage Rate as at 1 st April 2018 for aged 25 or over £7.83. This equates to £54.81 per day assuming a 7-hour working day. Total valuation = 9,066 days x £54.81 = £496,907 rounded to £500,000	500,000
Total investment for year 2017-2018			£4,735,000

5. Outcomes evidence and valuation

This section details the relationships between inputs, outputs and outcomes for the volunteer and visitor stakeholder groups. The numbers of volunteers and visitors ‘achieving’ the outcomes are calculated and financial proxies are assigned to each outcome. This assignment of financial proxies enables a monetary value for impact to be calculated.

5.1 Inputs, outputs and outcomes

NYMNPA volunteers and visitors contribute (i.e. input) their own time which results in a wide range of activities (outputs) that are identifiable for both stakeholder groups (see table 3). These outputs result in the health and well-being outcomes already identified for volunteers and visitors in sections 3.2 and 3.3 respectively.

Table 3: Stakeholder outputs

Stakeholder	Relevant outputs
Volunteers	<p>The number of volunteers registered with NYMNPA in the period 2016-17 is 642 and the number of volunteer days contributed is 9,066 days.</p> <p>The volunteers contribute to, and support, NYMNPA through undertaking a very wide range of activities. This input from volunteers results in a wide range of outputs and examples include: conservation and maintenance of public rights of way, education of children and families, providing information to visitors at visitor centres and mobile display units, woodland creation through native tree seed collection, and conserving wildlife through seal watching surveys.</p> <p>The input of the volunteers has been valued in section 4.</p>
Visitors	<p>The estimated number of visitors to NYMNP is 7.931m and the estimated number of visitor days 12.308m (2016 STEAM survey).</p> <p>Visitors to the park engage in a broad range of activities and examples include: walking, cycling, visiting beaches, wildlife watching, festivals, events and stargazing.</p>

5.2 Outcome indicators and quantities

The numbers achieving the outcomes (as identified in sections 3.2 and 3.3) need to be determined as this quantifies the numbers who have experienced the different impacts (changes) on their health and well-being.

The number of respondents to the volunteer survey was 105 out of a total number of 642 registered volunteers. To quantify the overall number of volunteers who have experienced the health and well-being impact for each of the four volunteer outcomes it has been assumed that the sample of responses is representative of all volunteers. *The actual number of volunteers experiencing the changes is likely to be higher than the survey responses indicate as the surveys were not undertaken for the purposes of an SROI analysis. Therefore, the impact calculated for the SROI for volunteers is likely to be an under-estimate in this respect.*

The number of respondents to the 2016 visitor survey was 649 and the total number of visitors is estimated at 7,931,000 (STEAM Survey, 2016). To quantify the overall number of visitors who have experienced the health and well-being impact for each of the three visitor outcomes it has been assumed that the sample of responses is representative of all visitors.



Table 4: Outcomes, outcome indicators and quantities

Stakeholder	Outcome	Outcome indicator	Outcome indicator % per volunteer survey/visitor survey	Quantity of volunteers/visitors experiencing change based on % ¹
Volunteers	Volunteers increase their social contacts and make new friendships.	No. reporting they volunteer to meet like-minded people.	33.3%	214
Volunteers	Volunteers gain satisfaction and increase self-esteem from engaging in an activity that is valued and worthwhile.	No. reporting they volunteer to give back to the community, to engage in conserving the park, and to promote the park's benefits.	89.5%	575
Volunteers	Volunteers improve their health by volunteering for NYMNPA.	No. reporting volunteering enables them to walk and work outdoors, and to engage in physical activity.	57.1%	367
Volunteers	Volunteers have enhanced engagement and can become absorbed in tasks they undertake for NYMNPA	No. reporting they volunteer to learn new skills and to acquire knowledge about the park, the countryside and wildlife.	36.2%	232
Visitors	Visitors improve their health through physical activity.	No. reporting they undertake physical activity during their visit.	83.0%	6,582,730
Visitors	Visitors increase their well-being through interacting with the natural environment of NYMNP.	Average rating of visitors with regards to the importance of 'beautiful unspoilt scenery', 'peace and tranquillity' and 'getting close to nature and wildlife' when visiting NYMNPA.	74.0%	5,868,940
Visitors	Visitors have enhanced engagement through learning about the special qualities of NYMNP.	Overall average for visitors able to cite qualities of the North York Moors without prompting.	33.1%	2,625,161

¹For volunteers the percentage is applied to the total number of volunteers (642). For visitors the percentage is applied to the total number of visitors (7,931,000).

5.3 Valuing outcomes using financial proxies

The valuation of the outcomes for volunteers and visitors requires placing a financial value on the changes that activities and projects bring about. Assigning a monetary value to social impacts is challenging as these impacts do not have a market price. What is being calculated is the monetary value that corresponds to the impact of the outcome (of, for example, improved health or improved well-being) for individuals.

There are a range of techniques that can be adopted to estimate a financial value for non-market goods such as well-being. These techniques, all of which have advantages and disadvantages, include stated preference techniques, and revealed preference techniques. Stated preference techniques (broadly) require asking stakeholders how much they would be willing to pay to obtain the outcome. For example, an individual might be asked how much they would be willing to pay to bring their fitness up to a particular level? Revealed preference techniques derive figures from the values of goods that are traded. For example, the differential between house prices in two different locations may reveal how much of a premium individuals are willing to pay to reside in the higher-priced location.

SROI calculations typically look to identify financial proxies to estimate the value of outcomes. The financial proxies employed in this analysis for volunteers are explained in table 5. These proxies are relatively commonly used in SROI analyses and, hence, this suggests they are accepted as appropriate measures. These proxies can be usefully compared to two other possible approaches to valuing the benefits of health and well-being impacts of volunteering which suggest much higher figures could apply. These two approaches are explained in Appendix 1 and, if adopted, would result in significantly higher valuations for volunteering. This suggests that the adoption of the financial proxies for volunteers used here ensures that the SROI is not being over-claimed. Similarly, the financial proxies employed in this analysis for visitors are commonly used in SROI analyses and they were also selected on a prudent basis (see table 6).

Table 5: Financial proxies used for valuing volunteer outcomes

Stakeholder	Outcome	Financial proxy description	Explanation for use of financial proxy	Financial proxy value
Volunteers	Volunteers increase their social contacts and make new friendships.	Cost of attending camaraderie-oriented group as per AgeUK £5.00 per week ¹	Joining a camaraderie-oriented group is an alternative means for making social contacts	£260.00
Volunteers	Volunteers gain satisfaction and increase self-esteem from engaging in an activity that is valued and worthwhile.	Average value of charity donation as per ONS Components of Household Expenditure 2017 ² £3.00 per week	Equating satisfaction gained from charitable monetary giving to satisfaction gained from giving of time to worthwhile causes	£156.00
Volunteers	Volunteers improve their health by volunteering for NYMNPA.	Cost of concession gym membership ³ as per local gym £278.10 p.a.	Gym membership would provide an alternative means of exercising.	£278.10
Volunteers	Volunteers have enhanced engagement and can become absorbed in tasks they undertake for NYMNPA	Cost of attending a course to learn a new skill such as hedge-laying costing £150 for a two day course ⁴	Course attendance would provide an alternative means of acquiring a new skill.	£150.00

¹ <https://www.ageuk.org.uk/northcraven/activities-and-events/>

²

<https://www.ons.gov.uk/peoplepopulationandcommunity/personalandhouseholdfinances/expenditure/datasets/componentsofhouseholdexpenditureuktablea1>

³ <https://www.ampleforth.org.uk/sports/memberships-prices/membership-options>

⁴ <https://www.craftcourses.com/courses/hedge-laying-2-day-course>

Table 6: Financial proxies used for valuing visitor outcomes

Stakeholder	Outcome	Financial proxy description	Explanation for use of financial proxy	Financial proxy value
Visitors	Visitors improve their health through physical activity.	Cost of one-off fitness class ⁵ as per local gym £6.80	Attending a fitness class would provide an alternative means of exercising to improve physical health.	£6.80
Visitors	Visitors increase their well-being through interacting with the natural environment of NYMNP.	Cost of Health and Well-being in Nature session ⁶ £5.00	Engaging in a Well-being in Nature session would provide an equivalent well-being uplift as visiting the park.	£5.00
Visitors	Visitors have enhanced engagement through learning about the special qualities of NYMNP.	Cost of an outdoors educational experience such as a guided walk ⁷ £6.00	An outdoors educational experience would provide an alternative means of learning about nature, wildlife, history, and heritage.	£6.00

⁵ <https://www.ampleforth.org.uk/sports/memberships-prices/pay-visit-price-list>

⁶ <https://ww2.rspb.org.uk/reserves-and-events/events-dates-and-inspiration/events/details.aspx?id=tcm:9-454905>

⁷ <http://www.ywt.org.uk/events/2018/06/09/maltby-commons-guided-walk?instance=0>

6. Deductions to ensure impact is not over-claimed

6.1 Duration and drop-off

SROI calculations recognise that outcomes can continue after an activity has ended. For example, skills acquired by a stakeholder through an activity can be usefully applied after the activity has stopped. Therefore, an estimation of the duration of an outcome is necessary. Durations are usually estimated in terms of years in SROI calculations and this convention is followed in this report.

A drop-off percentage also needs to be estimated for each outcome that lasts greater than one year. This is to recognise that whilst an outcome may continue beyond one year, it may deteriorate as time progresses.

How long (i.e. the duration) changes will last and how they will decline (i.e. the drop-off) can be difficult to assess, not least because it can vary for individuals. In respect of NYMNPAs SROI calculation it is particularly difficult to estimate these figures as the research is desk-based and suitable evidence is not available. Table 7 sets out the estimated durations and drop-off rates for the outcomes identified for volunteers and visitors. The table also provides a rationale for these estimates. The rationale is, inevitably, limited but to provide some degree of credibility we draw on figures within the SROI reports of Edinburgh's Parks (2014) and The Value of Walking Project (2011) in respect of volunteering outcomes. In respect of visitor outcomes a very prudent approach has been adopted in assuming all three outcomes cease if visiting the park ceases.



Table 7: Duration and drop-off estimates for volunteers and visitors

Stakeholder	Outcome	Duration		Drop-off	
		No. of years	Rationale	% p.a.	Rationale
Volunteers	Volunteers increase their social contacts and make new friendships.	3	Friendships will be maintained and endure even should a volunteer stop engaging with NYMNPA.	25%	It is assumed some drop-off in friendships will occur after year one.
Volunteers	Volunteers gain satisfaction and increase self-esteem from engaging in an activity that is valued and worthwhile.	1	The sense of satisfaction will be lost immediately a volunteer ceases engaging with NYMNPA.	0%	N/A. The duration is not beyond one year.
Volunteers	Volunteers improve their health by volunteering for NYMNPA.	1	Health improvement will not continue should a volunteer stop engaging with NYMNPA.	0%	N/A. The duration is not beyond one year.
Volunteers	Volunteers have enhanced engagement and can become absorbed in tasks they undertake for NYMNPA	3	Skills will endure for greater than one year and certificated skills (for example First Aid certificate) commonly require renewal every three years.	25%	It is assumed some drop-off in skill level will occur after year one.
Visitors	Visitors improve their health through physical activity.	1	Health improvement will not continue should visiting NYMNP stop.	0%	N/A. The duration is not beyond one year.
Visitors	Visitors increase their well-being through interacting with the natural environment of NYMNP.	1	Well-being increase does not endure should visiting NYMNP stop.	0%	N/A. The duration is not beyond one year.
Visitors	Visitors have enhanced engagement through learning about the special qualities of NYMNP.	1	Enhanced engagement through learning does not endure should visiting NYMNP stop.	0%	N/A. The duration is not beyond one year.

6.2 Deadweight, attribution and displacement

In addition to estimating duration and drop-off three further estimates are required in respect of deadweight, attribution and displacement. These amounts are deducted from the SROI calculation to avoid over-claiming.

Deadweight measures the percentage amount of the outcome that would have happened even if the activity had not been undertaken. For example, in a period of strong economic growth some of the accomplishments associated with a project to improve employment rates is connected to greater numbers of job opportunities becoming available due to the positive state of the economy. Attribution estimates how much of an outcome is caused by other organisations. This to ensure the SROI for any given organisation is not claiming for parts of outcomes attributable to others. Displacement measures where an outcome has dislodged (displaced) other outcomes outside the activity. The Social Value Network's *Guide to Social Return on Investment* gives the example of a project reducing crime through improved street lighting where an unforeseen consequence is the crime is displaced to an adjacent borough not engaged in the project.

In the context of NYMNPA, volunteer deadweight to deduct from the SROI calculation is assessed at 47%. This is based on research which estimates 47% of adults in England volunteer at least once per month (Keen and Audickas, 2017). That is, the assumption is 47% of NYMNPA volunteers would have sought alternative volunteering opportunities with other organisations had NYMNPA volunteering opportunities not been available and this percentage of the outcomes would therefore have been achieved regardless of NYMNPA offering volunteering opportunities. This approach to estimating volunteer deadweight has been adopted in prior SROI studies.

Estimating attribution and displacement in respect of volunteers is extremely difficult although in the context of NYMNPA it is considered these are likely to be low. As noted above in respect of duration and drop-off, to provide some degree of credibility the report draws on figures within the SROI report of Edinburgh's Parks (2014) with displacement 10% and attribution 5%. The displacement percentage is to recognise that a number of volunteers may have given up another volunteering opportunity to volunteer with NYMNPA. The attribution percentage is to recognise that some volunteers may already achieve these outcomes through volunteering for other organisations.

Visitor deadweight is estimated to be 42%. The Natural England *Monitor of Engagement with the Natural Environment* (2017) report estimates that 42% of people visited the outdoors at least once during the past week and, therefore, the assumption is this percentage of visitors would have sought an alternative outdoor space to visit had the park not existed. *This is likely to over-estimate deadweight as the Natural England report also estimates that of the 3.12bn visits to the outdoors, 1.45bn (c.46%) are visits within towns and cities (for example, visits to parks).* However, it is considered prudent to over-estimate deadweight in this manner. Displacement is the result of one outcome being achieved at the expense of another outcome outside the activity. This may have occurred if a visitor has stopped participating in another activity to use time for visiting the park. Given the popularity of visiting the outdoors, it seems reasonable to assume this will only be applicable to a small number of visitors and an estimate of 10% is used. The outcomes for the visitors are derived directly from interviews undertaken for the 2016 visitor survey and, therefore, we can be reasonably confident the outcomes are attributable to the park visit. However, to reflect that the visitor survey was not oriented to an SROI analysis an estimate of 25% is used to be prudent.



7. SROI calculation

7.1 SROI calculation

The SROI calculated (table 8) is £7.21 for every £1 invested. That is, in respect of DEFRA funding, for every £1 invested there is a positive return (or impact) on health and well-being for visitors and volunteers that is equivalent to approximately 7 times the value of the investment. This is based on the assumptions set out in the report and is subject to the limitations and boundaries also set out in the report.



Table 8: SROI calculation

Stakeholder	Outcome	Number	Financial proxy	Duration (years)	Deductions to avoid over-claiming				SROI calculation of impact		
					Drop-off	Deadweight	Displacement	Attribution	Year 1 (£)	Year 2 (£)	Year 3 (£)
Volunteers	Volunteers increase their social contacts and make new friendships.	214	£260.00	3	25%	47%	10%	5%	25,213	18,910	14,182
Volunteers	Volunteers gain satisfaction and increase self-esteem from engaging in an activity that is valued and worthwhile.	575	£156.00	1	0%	47%	10%	5%	40,648	0	0
Volunteers	Volunteers improve their health by volunteering for NYMNPA.	367	£278.10	1	0%	47%	10%	5%	46,250	0	0
Volunteers	Volunteers have enhanced engagement and can become absorbed in tasks they undertake for NYMNPA.	232	£150.00	3	25%	47%	10%	5%	15,770	11,827	8,870
Visitors	Visitors improve their health through physical activity.	6,582,730	£6.80	1	0%	42%	10%	25%	17,524,544	0	0
Visitors	Visitors increase their well-being through interacting with the natural environment of NYMNP.	5,868,940	£5.00	1	0%	42%	10%	25%	11,488,450	0	0
Visitors	Visitors have enhanced engagement through learning about the special qualities of NYMNP.	2,625,161	£6.00	1	0%	42%	10%	25%	6,166,503	0	0
Totals									35307377	30737	23053
Present value of totals (using Treasury social discount rate 3.5%)									34113408	28693	20792
TOTAL NET PRESENT VALUE									£34,162,894		
TOTAL INVESTMENT									£4,735,000		
SOCIAL RETURN ON INVESTMENT									7.21		

7.2 Sensitivity of SROI calculation to changes in assumptions

Obviously, changes to the assumptions for key variables will impact on the calculated SROI figure of £7.21 and assessments can be made to calculate how sensitive the SROI figure is to any such changes.

The relative number of visitors to volunteers is so great that changes to volunteer assumptions would have only a minimal impact on the SROI for NYMNPA. Changes to key assumptions in respect of the visitor calculations have a greater impact on the SROI. The key assumptions for visitors relate to visitor numbers, financial proxies, and the percentages estimated for deductions of deadweight, displacement and attribution.

For consistency in respect of assessing the sensitivity of these key assumptions for visitors a change of 15% has been applied to the assumed figure for each of these four variables. This would result in the SROI figures altering as follows (table 9):



Table 9: Sensitivity of SROI calculation to changes in assumptions

Assumptions as revised	SROI
Reducing visitor numbers by 15% or reducing financial proxy amounts by 15%	£6.14
Increasing visitor deadweight from 42% to 57%	£5.36
Increasing visitor displacement from 10% to 25%	£6.02
Increasing visitor attribution from 25% to 40%	£5.78

The sensitivity analysis indicates that even if these relatively substantial changes (of 15%) are applied to the assumption for each variable the resultant SROI remains significantly positive. Further, it is important to reiterate that the SROI figure, as reported above, of approximately £7 for every £1 invested has already been calculated on a prudent basis.

8. Conclusions and next steps

8.1 Concluding remarks

Academics from The York Management School (University of York) were tasked with a desk-based calculation of the Social Return on Investment (SROI) for the North York Moors National Park Authority. Given the available time and data, the resulting report focused on health and well-being impacts as they relate to volunteers and visitors. The report estimates that every £1 invested by DEFRA (and taking into account volunteer 'investment') generates approximately £7 of health and well-being benefits.

This SROI report is the start of a process of better understanding the health and well-being impact of the North York Moors National Park Authority. It is challenging to place a monetary value on items which are, in many respects, beyond financial calculation. The result is a figure that is understandably contestable. Indeed, it is desirable that, as the report is disseminated and discussed, the appropriateness of measures and proxies is carefully considered. It is entirely possible and appropriate that the preferred range of proxies, and their subsequent valuation, is modified in future SROI analyses. This may, in turn, increase or decrease the SROI figure (depending on the proxies used, the costs selected, and the range of activities included).

Any such change in no way negates or invalidates the valuation provided in this report. Rather, an altering of the valuation merely reflects the natural process of refinement and negotiation that is part of on-going process of undertaking SROI analyses. Indeed, while it is important that any figure produced is judged meaningful (and we are confident that an SROI of 7:1 is robust and meaningful) the conversation evoked in respect of what the NYMNPA means to individuals, communities and the nation is arguably more significant. It is for this reason that the figure produced by this report should be considered alongside the narrative (qualitative) data describing what it means to be a visitor or volunteer in the park.

8.2 Next steps

We have made clear in the report this is a 'first-time' SROI and the intention is NYMNPA can build on this foundational SROI to embed processes that will facilitate more comprehensive analyses in future years. The next steps in this process are:

- 1) Consideration whether a more fine-grained analysis of individual interventions, initiatives, programmes, activities or funding is desirable.
 - a. The report makes it clear that the return of £7 for every £1 invested is a conservative estimate. The estimate is conservative because: available time and data meant that the full range of benefits attributable to stakeholders could not be identified, only some stakeholders (visitors and volunteers) were included, only the return on DEFRA investment was calculated, and potentially high impact interventions were not specifically examined.
 - b. A more fine-grained approach to future SROIs might suggest moving away from 'whole park' assessments to more in-depth investigation of the return of discrete interventions (for example, Land of Iron project, Community Champions working with disadvantaged communities, school outreach). Examining discrete interventions would, arguably, provide insights into where the health and well-being impact of the NYMPNA is greatest. This, in turn, would better inform discussions with key stakeholders and project funders such as DEFRA and Heritage Lottery Fund, as well as other organisations such as health and social care agencies and Public Health England.

- 2) Determine whether NYMNPA wishes to develop internal capacity to conduct SROI.
 - a. NYMNPA needs to determine whether it wishes to undertake future SROI calculations. It needs to be clear on the purpose of these SROI analyses (for example, accounting to funders, informing funding bids, understanding benefits to users, shaping services, directing resources). It needs to be clear on the cost in financial terms (such SROI reports take time, expertise and money). NYMNPA also needs to be aware that quantifying that which is largely unquantifiable may have unintended outcomes (for example, possible focus on targets, false comparisons, and simplistic assessments of worth where qualitative aspects are ignored).

- b. If further SROI activity is deemed desirable, there is a need to consider whether this capacity should be developed in-house or outsourced. Both have advantages. The former is likely to be cheaper, can be more readily tailored to specific needs, and may develop as a source of expertise to be shared with other parks. Outsourcing may offer more independent assessment, reduce the need for internal training, and may be acquired if and when necessary.
 - c. The authors have undertaken to deliver a workshop in September 2018 to inform the above discussions.
- 3) Prepare for the collection of the data required for the calculation of social return on investment *prior to the start* of any new intervention, initiative, programme, activity or funding.
 - a. If NYMNPA determines that future SROI activity is desirable (whether internally or externally sourced) then attention needs to be given to the routine collection of data to facilitate such work.
 - b. There will be a need for quantitative data (for example, numbers of people, activities, hours spent, investment) and qualitative data (for example, why people are involved, what they get out of it, what they don't like, what they would have done instead). Collecting this data might involve accounts, surveys, interviews, focus groups or workshops.
 - c. Our experience with NYMNPA suggests that this data is best collected as a routine part of the work of the authority or as an integral part of any intervention, initiative, programme, activity or funding. People are less willing or able to provide the necessary data post-hoc.
 - d. Funding for data collection and assessment should be built into any new initiative that is likely to be assessed.
 - e. The authors have undertaken to deliver a workshop in September 2018 to inform the above.

- 4) Disseminate the results of this report to wider stakeholders and encourage a discussion of value, priorities and future steps.
 - a. The authors hope that the report will inform debates on the wider value and benefits of our national parks. This might usefully include Members of the Authority, staff, DEFRA, funders, visitors, residents, interested media and other key stakeholders.

- 5) Collaboration with other national parks and National Parks England in the sharing of best practice in respect of the assessment and calculation of health and well-being impacts (see separate briefing note).
 - a. Discussions with NYMNPA suggest that other national parks may be interested in developing similar assessments of social return. NYMNPA could stand as the lead park in this respect (being the first National Park Authority in England to have had such a return calculated).
 - b. Key to any valuation on a wider National Parks England basis would be availability of broadly comparable data.
 - c. The authors have expressed their great willingness to work with NYMNPA in any such discussions or commissioned work in respect of other authorities.



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Appendices

Appendix 1: Alternative approaches to valuing health and well-being benefits of volunteering

In section 5.3 the financial proxies for valuing the social impacts on health and well-being are set out. Two other methods that have been used in well-being analyses are a QALY-based valuation and a Well-being Valuation (WV) approach.

The first of these is based on the, so-called, quality-adjusted life year (QALY) as developed by health economists. QALYs combine (i) quality of life and (ii) length of life into a single measure and are used to evaluate the benefits of alternative health treatments. Quality of life is measured on a scale of 0 to 1, where 0 = dead and 1 = perfect health. Length of life is measured in years. Therefore, 1 year of life with perfect health = $1 \times 1 = 1$ QALY. QALYs are used by the National Institute for Health and Care Excellence (NICE) to evaluate the cost-effectiveness of treatments, with treatments exceeding c.£30,000 per QALY not being deemed cost-effective.

The Sainsbury Centre for Mental Health (2003) has estimated the effect of mental illness on quality of life for individuals with a severe mental health problem equates to 0.352 of a QALY for each year of illness. Cox et al. (2012) suggest this can be used to estimate mental well-being (per year) as worth (or equivalent to) $0.352 \times £30,000 = £10,560$ per year. Cox et al. (2012) then use the National Accounts Framework (see section 3.1) to allocate the £10,560 to different components of well-being. For example, Cox et al. value having a 'Satisfying Life' at £1,056 per year and this can be compared to the financial proxy used in section 5.3 valuing the outcome related to the satisfaction volunteers gain from engaging in an activity that is valued at the significantly lower figure of £156 per year. An example of the use this QALY-based approach in the context of a recent SROI report is the Heritage Lottery Funded project *Inspiring futures: volunteering for well-being* delivered jointly by Manchester Museum and Imperial War Museum North.



The second approach is that of Fujiwara et al. (2013). They have undertaken a detailed analysis to estimate the value of volunteering using a Well-being Valuation (WV) approach. This WV approach was first developed by Fujiwara and Campbell in a 2011 discussion paper and was subsequently included in HM Treasury's 2011 Green Book update. Their approach is to estimate the increase in well-being volunteering brings about for an individual and to then estimate what equivalent sum of money would be required to give the same enhancement to well-being. The calculations are derived from the British Household Panel Survey life satisfaction and volunteering frequency data. The calculations result in an estimate for the value (i.e. well-being gain) of frequent volunteering (i.e. volunteering at least once per month) of £13,500 per year in 2011 values. This is an average value across UK society and equates to a total national value for volunteering of c.£70bn per year. This valuation does not include any physical health benefits as it only considers life satisfaction. The valuation needs to be used with care; however, Fujiwara et al. (2013) are keen to emphasise that it suggests other methods of valuing volunteering may be producing very significant under-estimations. If the £13,500 valuation of volunteering for an individual is contrasted to the financial proxies in section 5.3 then it can be seen it is considerably higher than the total amount for the financial proxies of £844.10 (differing by a factor of c.16 times).

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