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## RSPB Reserves and Local Economies

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# 1 Executive Summary

RSPB reserves perform a crucial ecological function, acting to preserve some of the most threatened species and habitats across the UK. They also afford thousands of people every year the opportunity to enjoy the natural environment, delivering benefits to health, education, and wellbeing for those who visit. Finally, reserves form economically diverse tracts of land, representing significant and diverse sources of green, sustainable employment within their local communities.

Conservation delivers a vast and varied range of benefits to people. These so called 'ecosystem services' range from the complex biological processes that create soil and clean water to the provision of inspiring landscapes and amazing wildlife experiences. Recent reports such as the UK National Ecosystem Assessment (NEA) and globally The Economics of Ecosystems and Biodiversity (TEEB), have attempted to measure and value spectrums of services provided by the natural environment. These reports have demonstrated the critical importance of nature to our wellbeing.

Modern conservation is also big business. In addition to directly delivering wellbeing benefits through ecosystem services, preserving the natural environment provides significant benefits to income and employment at local and national levels. Conservation work stimulates activity within a variety of economic sectors such as agriculture, construction and tourism, as well as providing a diverse range of direct employment opportunities.

Nature-based tourism in particular is critically linked to conservation activities, and plays a significant role within economies across the UK. Spending by visitors on trips to nature reserves and green spaces is worth billions of pounds each year to local and national economies each year. This type of economic stimulus can be of particular benefit to those areas (e.g. rural or coastal) with an often otherwise narrow scope for employment opportunities. Nature tourism is also going from strength to strength in the UK, with increases in visits to RSPB reserves and the natural environment far out-performing current trends in general tourism.

This report estimates the impacts had by 10 RSPB nature reserves in 2009, looking into 5 main drivers of economic activity: direct employment; local spending by employees and volunteers; local reserve expenditure; other land uses on the reserves; and visitor spending. Finally using aggregate RSPB data and information gathered from the 10 case study reserves, estimates are made of the total local impacts of the reserve network. These figures are then compared with the results from an initial study performed in 2002, to ascertain how the levels of local spending and employment have changed in recent years.



## 1.1 Headline findings

- RSPB reserves represent significant and diverse sources of employment and income in their surrounding economies. The UK reserve network attracted £66 million to local communities in 2009, supporting 1,872 FTE local jobs.
  - These benefits are more often than not located in more remote, rural, or coastal areas, where economic opportunities tend to be fewer and less diverse.
  - The table below shows how these jobs were supported across the network:

Table 1: FTE jobs and spend supported by RSPB reserves in 2002 and 2009

Economic impact	FTE Jobs supported		Expenditure supported (£m)	
	2002	2009	2002	2009
Direct employment	308	553	4.1	11.1
Employee spend	35	61	1.2	2.7
Reserve spend	101	110	2.7	7.9
Grazing lets	234	143	-	-
<b>RSPB and farming activities total</b>	<b>678</b>	<b>867</b>	<b>8</b>	<b>21.7</b>
Visitor spend	335	1,005	11.7	44.2
<b>Total</b>	<b>1,003</b>	<b>1,872</b>	<b>19.7</b>	<b>65.9</b>

- Since 2002, the local employment impacts of the RSPB UK reserve network have increased by 87%, and local expenditure supported has increased 235%.
  - These increases has been boosted predominantly by visitor numbers, which increased by 90% over this period, to 2 million visits, causing the number of jobs supported by visitor spend to treble.
  - The expansion of the reserve network (by 17%) and investment on existing reserves also facilitated significant increases in the number of direct jobs supported over this period.

- **The 10 case study reserves are estimated to support almost 420 FTE jobs in local and regional economies, when all economic impacts are included.**
  - Large, popular reserves such as Titchwell Marsh and Minsmere in particular have significant economic impacts, each supporting over 100 FTE jobs per year in their local communities.
  
- **The greatest economic impacts delivered by conservation come from tourism spending, with 1,005 (54% of the total) jobs supported by the RSPB reserve network in local communities**
  - Nature tourism is a growth sector. Leisure and tourism visits related to the natural environment increased by 10% between 2005 and 2009, despite general tourism in the UK declining by 9.2% over this period. This increasing trend was mirrored by visits to RSPB reserves, which increased by 38% between these years.
  - Tourism impacts can be particularly beneficial in areas with limited economic prospects, as the industry is characterised by a diverse range of employment opportunities and low start up costs to businesses.
  
- **Nature and the environment make a substantial contribution to the UK economy.**
  - Recent studies have shown that the natural environment supports almost 750,000 Full Time Equivalent (FTE) jobs and over £27.5 billion of economic output across the UK.
  - In England, the adult population participated in 2.86 billion visits to the natural environment, spending over £20 billion on these trips. In Scotland, nature tourism brings an estimated £1.4 billion to the economy each year.

**The evidence in this report demonstrates how investment in conservation stimulates economic activity frequently in areas where job opportunities are limited. It adds to the growing body of recent work illustrating the economic value of nature and supports the growing consensus that nature conservation and economic growth go hand in hand.**

## 2 Introduction

RSPB Reserves are primarily acquired and managed to deliver conservation value and enhance the status of the most threatened species of birds and other biodiversity in the UK. On 1<sup>st</sup> April 2009, the RSPB managed 206 reserves across the UK, covering 142,044 hectares. Over 14,000 species were recently recorded on RSPB reserves, comprising all of the native British birds, dragonflies, damselflies, amphibians and reptiles, 93% of land mammals, 74% of all vascular plants, 66% of the butterflies and moths, and 58% of beetles. The network incorporates almost 100,000 hectares of Site of Specific Scientific Interest (SSSI) or Areas of Specific Scientific Interest (ASSI) designations, and over a third of the total area of UK National Nature Reserves (NNRs).

However, by their very nature and the position they hold in the countryside and urban fringes, reserves are highly multifunctional and are hugely important in providing people with first hand encounters with nature. Reserves are economically diverse tracts of land that provide numerous forms of benefit, many of which support substantial levels of employment and income in the surrounding communities. The almost 2 million annual visitors that are drawn to these sites bring considerable financial benefits to these frequently remote rural areas where job opportunities are often limited.

The RSPB works both for wildlife and for people. Nature delivers a host of benefits to people that the RSPB takes into consideration in its conservation work. For example, the creation of reserves enhances the opportunities for people to interact with nature, offering valuable recreational and cultural benefits to those that visit. Reserves also play a role in combating physical and mental ill health, educating people about the environment, and helping to redress disconnectedness from the natural world.

In addition to benefits provided to visitors, reserves also play an important economic role in their local areas. The purpose of this report is to study the economic impacts RSPB reserves have on surrounding communities, focusing on the income and employment within local economies that is supported by the reserves. These tangible economic links between nature and economic prosperity are particularly important at a time when the available finance for investment in nature conservation is diminishing as well as at a time of worrying declines in biodiversity.

## 2.1 Recession, localism, and the natural environment

The UK economy is currently struggling to recover from one of the worst recessions seen in over a century, with the unemployment rate averaging 8% in 2010, the highest figure since 1993. The UK Government has opted for an ambitious set of 'austerity measures' as part of a strategy for reducing the national deficit, which has had negative impacts on the levels of public spending and public sector employment across the board.

In the 2010 comprehensive spending review, the two departments which suffered the largest cuts were Communities and Local Government (CLG), and Department for the Environment, Food, and Rural Affairs (DEFRA). This followed the announcement in a DEFRA commissioned report that there was an annual deficit in funding for the UK Biodiversity Action Plan (BAP) of £273 million.<sup>1</sup> These factors begin to give an impression of the challenges for local and national conservation efforts in the new economic climate.

Following the downturn in economic activity and the tightening of fiscal policy in the UK, there has also been a considerable shift in focus, at all levels of government, towards generating tangible economic benefits from public investments. There is a real risk that rather than prioritise investment in the environment at a time when it is vital, the misconceived and outdated notion that conservation activities come with substantial economic trade-offs could instead steer decision makers away from doing what is needed to preserve our species and habitats.

With this economic backdrop, the drive for localism in the UK has emphasised the crucial relationship between local governance, and the natural environment. Greater powers devolved to local decision makers come with a greater responsibility to ensure the quality of the natural environment, and the associated benefits afforded to people within local communities.

Local councils are faced with the challenges of maintaining services, stimulating economic activity and preventing further environmental degradation. It is now more important than ever to understand how nature conservation and local economic growth can go hand in hand.

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<sup>1</sup> GHK Consulting, 2010, *Costs of the UK Biodiversity Action Plan – Update*, DEFRA.

## 2.2 The environmental economy

The misconception that the environment and the economy are conflicting priorities is steadily being driven from the rhetoric of decision makers as more and more knowledge is obtained about the life supporting and life enhancing benefits people receive from nature. It is becoming increasingly apparent that sustainable economic growth can only be achieved alongside a responsible attitude to wildlife and ecosystems.

Nature plays an integral role in supporting human society. Its value is ultimately infinite, as without functioning ecosystems human life as we know it would end. However, at a more specific level 'ecosystems services', the natural processes which deliver benefits to people, have been shown to underpin significant levels of social and economic activity across the globe. Recent evidence from The Economics of Ecosystems and Biodiversity (TEEB) report, launched in 2010, has attempted to better quantify the value of these services to global society in monetary terms, with the National Ecosystem Assessment (NEA) providing similar analysis for the UK.

Many of the services and benefits provided by nature have been, and continue to be, difficult to measure and value. However a more clear, if less encompassing, picture of the economic impact of nature can be gained from looking at nature related businesses. There is a significant body of literature documenting the economic activity that is underpinned, or in other ways supported by, the natural environment in the UK. Recent studies over the past decade have found that across the UK, the natural environment supports a minimum of £27.5 billion of economic output.

### Box 1: Measures of National output:

**Gross Value Added (GVA)** is the principal measure of the total value of goods and services that a geographical area produces. The aggregate of a region's GVA, after accounting for national taxation and subsidies that leave and enter the area, form that region's **Gross Regional Domestic Product (GDRP)**. This in turn feeds into national **Gross Domestic Product (GDP)**, the principle means of measuring the final market value of all goods and services produced in a country in any given period. GVA and GDP, and how they change over time, are important measures of the overall health of local and national economies respectively.

## Box 2: Economic Activity supported by the natural environment in the UK

**England:** In 2004 it was estimated that environment-linked activity supports 299,000 FTE jobs (more than the chemicals and motor vehicle manufacturing industries), and contributes £7.6 billion GVA to the English economy. Within this, it was found that 8,600 FTE jobs were directly supported by nature and landscape conservation in England, and that 60% of rural tourism and recreation activity depends on landscapes and wildlife, supporting more than 190,000 FTE jobs.<sup>2</sup>

**Wales:** It was estimated that in 2000, £9 billion of spending was generated by the management and use of the natural environment, supporting £2.4 billion of GDP and 169,000 jobs, or 1 in 6 of the Welsh workforce.<sup>3</sup> A separate study estimated that activities related specifically to wildlife supported £1.9 billion of output in 2007 and almost 32,000 FTE jobs, 3% of the country's employment.<sup>4</sup> Economic activity linked specifically to National Parks in Wales is also estimated to contribute £177 million to the economy, and support almost 12,000 jobs.<sup>5</sup>

**Northern Ireland:** The country's natural environment was estimated to support £573 million of economic activity and 32,750 FTE jobs, of which 9,413 jobs were in protection and management of the environment, and 6,125 jobs were from environmental tourism and recreation.<sup>6</sup>

**Scotland:** Scottish Natural Heritage found in 2009 that activities and output dependent on the natural environment contributed £17.2 billion to the national economy (11% of Scotland's total output), and supported 242,000 jobs, 14% of all FTE employment in the country.<sup>7</sup> The Scottish Government in 2010 found that wildlife tourism alone contributed £276 million GVA, and 2,763 FTE jobs supported by spending by tourists related to wildlife.<sup>8</sup> In addition a report from Scottish Natural Heritage estimates that visitor spending from nature-based tourism is £1.4 billion per year, and supports 39,000 jobs in the Scottish economy.<sup>9</sup>

<sup>2</sup> GHK Consulting, 2004, *Revealing the value of the natural environment in England*, DEFRA.

<sup>3</sup> Bilsborough and Hill, 2003, *Valuing Our Environment: The Economic Impact of the Environment of Wales: Technical Summary*, for the Valuing the Environment Partnership.

<sup>4</sup> Mabis, 2007, *'Wildlife Economy Wales': An Economic Evaluation Scoping Study*, for the Valuing our Environment Partnership.

<sup>5</sup> Hyde and Midmore, 2006, *Valuing our environment: Economic impact of national parks in Wales*, for the Valuing the Environment Partnership.

<sup>6</sup> Department of Environment Northern Ireland, 2007, *Valuing Our Environment: The Economic Impact of the Environment in Northern Ireland*.

<sup>7</sup> Scottish Natural Heritage, 2009, *Valuing our Environment*.

<sup>8</sup> International Centre for Tourism and Hospitality Research: Bournemouth University, 2010, *The Economic Impact of Wildlife Tourism in Scotland*, Scottish Government Social Research.

<sup>9</sup> Bryden et. al., 2010, *Assessing the economic impacts of nature based tourism in Scotland*, Scottish Natural Heritage Commissioned report No. 398.

The RSPB has also conducted a number of studies which examine the economic benefits of UK conservation work. The following results have been found over the past 10 years:

### Box 3: RSPB Studies around conservation and employment in the UK

**“Conservation Works”:** In 2001, it was estimated that direct employment in the natural environment sector in the UK supported 18,000 FTE jobs.<sup>10</sup>

**“RSPB Reserves” (2002):** In 2002, the RSPB’s reserve network supported over 1,000 FTE jobs in local economies across the UK.<sup>11</sup>

**“Watched Like Never Before”:** In 2006, the numerous economic benefits of charismatic species were studied, finding, for example, that tourists visiting nature sites to see Ospreys spent £3.5 million per year in local economies across the UK.<sup>12</sup>

**“The Galloway Kite Trail”:** Between 2004 and 2009, the Galloway Kite Trail brought £2.63 million of additional tourist spend into Dumfries and Galloway, supporting an average of 13 FTE jobs per year.<sup>13</sup>

**“Wildlife at Work”:** In 2010, White-tailed eagles were responsible for £5 million of tourist spend on the Isle of Mull, supporting 110 FTE jobs per year.<sup>14</sup>

These reports all have a common and clear conclusion; conservation features heavily in supporting measurable economic activity, and contributes significantly to employment across the UK.

## 2.3 Health, wellbeing, and the economy

It is important when looking at the employment and income benefits delivered by nature to remember that as arguments for investing in conservation, they still tell only one part of the story. In reality, the benefits from preserving the environment are far more diverse, and acknowledging the direct wellbeing delivered the natural

<sup>10</sup> Rayment and Dickie, 2001, *Conservation Works...for local economies in the UK*, RSPB.

<sup>11</sup> Shiel et. al., 2002, *RSPB Reserves and Local Economies*, RSPB.

<sup>12</sup> Dickie et. al., 2006, *Watched Like Never Before*, RSPB.

<sup>13</sup> Molloy and Rollie, 2010, *The Galloway Kite Trail: Economic Impacts in Dumfries and Galloway*, RSPB.

<sup>14</sup> Molloy, 2011, *Wildlife at Work*, RSPB.

environment is crucial to discussions around ecosystems services, and the value of the environment to people.

Wellbeing can be divided into physical and mental wellbeing. A significant benefit provided by RSPB reserves, especially urban fringe reserves, is the opportunity for people to undertake physical exercise. Insufficient levels of physical activity are a prime factor in a number of health conditions and represent a large cost to the UK economy. A report commissioned by the forestry commission in 2005 found that reducing the sedentary population by just one percent could reduce morbidity and mortality rates valued at £1.44 billion for the UK.<sup>15</sup> In a separate study the cost of physical inactivity to the economy as a whole was estimated to be £8.2 billion.<sup>16</sup>

One of the most beneficial forms of exercise is walking as it is accessible and requires no financial outlay.<sup>17</sup> It has been argued that people living in areas with more green space experienced a better level of general health and the relationship was especially significant for low-income groups, older people and homemakers.<sup>18</sup> This sentiment is echoed in the recent NEA, which notes further research around risks to UK health and the economy of inactivity which can be mitigated by the availability of outdoor recreation spaces.<sup>19</sup>

Mental ill health in Western Europe also poses a significant challenge to wellbeing and the economy, costing the UK £17 billion in lost economic output each year.<sup>20</sup> Around one seventh of the NHS budget is spent on mental health. The cost of depression in lost economic output is estimated to be £12 billion per year.<sup>21</sup> There are several studies demonstrating the advantages of physical activity in green spaces on mental wellbeing, illustrating again how outdoor recreation and engagement with the natural environment have significant potential benefits to health, wellbeing, and the economy.<sup>22</sup>

<sup>15</sup> CJC Consulting, 2005, *Economic Benefits of Accessible Green Spaces for Physical and Mental Health: Scoping study*, for the Forestry Commission.

<sup>16</sup> Bird, 2004, *Natural Fit: Can green space and biodiversity increase levels of physical activity?*, for the RSPB.

<sup>17</sup> Ogilvie, 2007, *Interventions to promote walking: systematic review*, British Medical Journal, 334. Williams, 2006, *Active lives: Physical activity in disadvantaged communities*, Bevan foundation policy paper 9, Gwent, Bevan foundation.

<sup>18</sup> De Vries et. al., 2003, *Natural environments-healthy environments? An exploratory analysis of the relationship between greenspace and health*, Environment and Planning A, 35, 1717-1731.

<sup>19</sup> Berry and Hopkins, 2011, *National Ecosystem Assessment: Chapter 17: Status and Changes in the UK's Ecosystems and their Services to Society: a Synthesis for England*.

<sup>20</sup> Layard, 2006, *The case for psychological treatment centres*, British Medical Journal, 332.

<sup>21</sup> The Centre for Economic Performance's Mental Health Policy Group, 2006, *THE DEPRESSION REPORT: A New Deal for Depression and Anxiety Disorders*, London School of Economics and Political Science.

<sup>22</sup> Pretty et. al., 2007, *Green exercise in the UK countryside: Effects on health and psychological wellbeing, and implications for policy and planning*, Journal for environmental planning and management, 50(2), 211-231.



## 2.4 Green tourism

Tourism, of all of the sectors contributed to by nature reserve networks, plays a particularly important role in the UK economy. The total impact of the “Visitor Economy” in Britain was estimated to be 8.2% of national GDP in 2007, equivalent to around £114 billion. In addition, the industry contributes to a broad spectrum of socio-economic policies, such as economic inclusion, business formation, and sustainable economic development in, often poorer, rural and coastal locations.<sup>23</sup>

As can be seen from the studies listed in section 2.2, tourism and recreation related to the environment plays a significant role in supporting economic activity across the UK. The English adult population participated in an estimated 2.86 billion visits to the natural environment in the 12 months from March 2009 to February 2010, with visitors spending an estimated £20.4 billion. “Enjoying wildlife” featured in the motivations for 13% of these visits, suggesting that this motivation accounted for up to 371.8 million visits, and £2.65 billion of spending.<sup>24</sup>

Regarding trends in domestic tourism, Visit Britain has found decreasing trends in the volume of UK tourism in recent years, with annual reductions of 4.2% in 2006, 2.24% in 2007, and 4.65% in 2008. There was an increase in visits between 2008 and 2009 of 7.04%, a swing of 11.69%, which research from Visit England suggests could have been the result of the recession in the UK. The so-called “Staycation effect” in England in 2009 describes a significant increase in domestic tourist visits following the economic downturn.<sup>25</sup> Overall, between 2005 and 2009 domestic tourism trips in the UK have declined by 12.644 million, a fall of 9.2%.<sup>26</sup>

Recent trends in tourism specifically related to the natural environment, or green tourism, have in fact shown the opposite results. A comparison of leisure visits taken

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Pretty et. al., 2005, *The mental and physical health outcomes of green exercise. International journal of environmental health research*, 15(5), 319-337.

Lawlor and Hopker, 2001, *The effectiveness of exercise as an intervention in the management of depression: Systematic review and meta-regression analysis of randomised controlled trials*, British Medical Journal, 322, 1-8.

Mutrie, 2000, *The relationship between physical activity and clinically defined depression*, In Biddle et al (eds), *Physical activity and psychological wellbeing*, London, Routledge: 46-62.

<sup>23</sup> Deloitte, 2008, *The Economic Case for the Visitor Economy*, for Visit Britain and the Tourism Alliance.

<sup>24</sup> TNS Research International Travel & Tourism, 2010, *Monitor of Engagement with the Natural Environment: The national survey on people and the natural environment Annual Report from the 2009-10 survey*, Natural England Commissioned Report NECR049.

<sup>25</sup> Visit England, 2010, *The credit crunch and the future of the staycation (April 2010)*.

<sup>26</sup> Visit Britain, 2006, *The UK Tourist: Statistics 2005*.

Visit Britain, 2007, *The UK Tourist: Statistics 2006*.

Visit Britain, 2008, *The UK Tourist: Statistics 2007*.

Visit Britain, 2009, *The UK Tourist: Statistics 2008*.

Visit Britain, 2010, *The UK Tourist: Statistics 2009*.

to the natural environment by Natural England found that there was a 10% increase in visits between 2005 and 2009/10.<sup>27</sup> This result is mirrored in the number of visitors to RPSB reserves over the period, which saw an increase of 38% over this same 5 year period. This evidence illustrates that green tourism is a growth sector in the UK, both nominally, and as a proportion of the tourism industry.

Green tourism is a sector characterised by significant levels of spending, high business start-up potential and diverse employment opportunities. It is also going from strength to strength even in times of recession. The potential economic benefits for rural communities from investing in conservation are huge, and local authorities should take action now to capitalise on this substantial and increasing demand for engagement with the natural environment.

## 2.5 Outline of this report

This report aims to examine the tangible local economic benefits that local communities experience from RSPB nature reserves. 10 sample case study reserves were examined, and the data used to draw aggregate conclusions about the total impacts of RSPB reserves across the UK.

The sites chosen for the sample include reserves from Scotland, Wales, and Northern Ireland, and four coastal reserves to reflect the impacts of sites playing host to seabirds and marine life. The sample ranges from Saltholme, an English urban fringe reserve with large numbers of local visitors, to Mull of Galloway, perched high on a cliff top at Scotland's most southerly edge and playing host to a smaller number of long stay holiday-makers. Three reserves have also been through recent on-site developments, providing significant economic support to local contractors, whilst others host large grazing lets, supporting the local agriculture industry. It is hoped that the sample case studies reflect the diversity of the RSPBs reserve network, and the corresponding variety of associated economic impacts.

This report is to a large extent an update of work previously produced by the RSPB in 2002.<sup>28</sup> The broad methodology remains the same; however some of the means by which impacts were calculated have been improved or updated. The sample of reserves used for individual case studies also includes different reserves to those used in 2002. However, a comparison of the total employment supported in the two reports is used to establish how the impacts of reserves may have changed over the past 7 years.

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<sup>27</sup> Natural England, 2011, *Monitor of Engagement with the Natural Environment (MENE): Comparison of MENE and England Leisure Visits Survey 2005*, Natural England Commissioned Report NECR056.

<sup>28</sup> Shiel et. al., 2002, *RSPB Reserves and local economies*, RSPB.

## 3 Methodology: Assessing the economic impacts of RSPB reserves

### 3.1 Introduction

RSPB reserves support economic development in a variety of ways.

#### Box 4: Types of economic impacts had by reserves

##### Impacts of RSPB and farming activities on the reserve:

1. They provide **direct employment** for staff involved in reserve management and associated activities.
2. **Spending by employees and volunteers** supports local economic activity.
3. **Direct expenditures by reserves** on goods and services provide income and employment for local firms and the use of commercial contractors also provides additional employment and income for local businesses.
4. **Other land use on reserves** such as grazing lets and agricultural tenancies provide additional income and employment for industries where standard practices can complement conservation outcomes.

##### Impacts of economic activity attracted to the area by the reserve:

5. **Visitors to reserves** spend money in the local economy.

This section describes these impacts and presents the methodology used in this report to assess their scale. Some examples of this process is included from one of the case studies in the report. It should be noted that some of the tables may contain slight inconsistencies in the total figures due to rounding.

### 3.2 Direct Employment

Reserves provide employment for a variety of staff involved in reserve management, species protection, survey and monitoring, visitor services, farming, catering, retailing, and cleaning operations. Many of these jobs are permanent, full time posts,

while some are arranged on a seasonal, part time, contract or temporary basis. Estimates of employment are therefore presented both in terms of numbers of jobs, and in terms of full time equivalent (FTE) jobs.

RSPB reserves are also host to significant annual volunteering contributions. In 2009/10, a total of 3,788 volunteers on reserves contributed 270,538 hours of work, with an estimated net economic benefit of almost £1.7 million. Although this volunteering contribution does not add to the calculations for employment supported by reserves, it is a valuable measure of engagement with the local community, and the additional benefits reserves offer.

### 3.3 Spending by Employees and Volunteers

#### 3.3.1 Spending by Employees

Reserve employees and volunteers spend some of their wages and salaries locally, for example on food products, petrol, and accommodation, providing income and employment for local businesses. The economic impact of employee expenditures is often referred to as the 'induced effect'. Its strength depends on the proportion of income that is spent locally, which in turn depends on rates of taxation, savings and imports.

Following Shiel et. al., 2002, we assumed that spending by each RSPB reserve employee gave rise to a further 0.1 FTE jobs in local economies.<sup>29</sup> The figure is based on multipliers from the Scottish input:output tables, the Scottish tourism multiplier and the Welsh forestry multiplier. Unfortunately economic multipliers are unavailable for individual UK regions, and these are the best estimates that have been made to date. This factor is broadly consistent with the isolated induced employment effects noted for the 'hotels, pubs, and catering' or 'agriculture' sector, in the Scottish Government tables. Therefore 1 FTE job leading to 0.1 FTE jobs seems to be a reasonable assumption of the impact of spending on further employment. (For more information on multipliers see section 3.4, or the Scottish Government website<sup>30</sup>).

#### 3.3.2 Spending by Volunteers

Volunteers are people who work for the RSPB but are unpaid. They play an important role in reserve management, taking part in a wide variety of reserve work. As well as helping the RSPB to meet its conservation objectives, voluntary work

<sup>29</sup> Shiel et. al., 2002, *RSPB Reserves and Local Economies*, Royal Society for the Protection of Birds.

<sup>30</sup> Scottish Government, <http://www.scotland.gov.uk/Topics/Statistics/Browse/Economy/Input-Output/Multipliers>, visited 10 May 2011.

provides training, experience and fulfilment to participants, and can contribute to their career development. A recent study by the Sustainable Development Commission, for example, indicates that the skills and knowledge gained from volunteering in outdoor environments can improve the resilience, responsibility and employment chances of marginalised young people.<sup>31</sup> This is particularly valuable in times of recession when employment opportunities are scarce, helping to promote human capital within the local community. Over 60% of our residential volunteers state that they are using the experience to progress their careers.

Although volunteers are unpaid, they contribute to local economies by spending money on goods and services around reserves. Some volunteers stay on reserves during the course of their work, while others volunteer on a daily basis. The main local economic impact resulting from voluntary work occurs as a result of spending by volunteers in the local economy. This expenditure has been estimated by assuming, conservatively, that volunteers spend £7 per day in local economies while working on the reserve.<sup>32</sup>

Using this figure along with total hours worked by volunteers at the reserves, total annual volunteer spend was calculated (assuming 7.5 hour working days). Following Shiel et. al., we assumed that volunteer spend was roughly equivalent to visitor spending in terms of its impacts on local employment. Therefore £44,000 spend was assumed to support 1 FTE job (see section 3.6 for more details).

### 3.4 Direct Reserve Expenditure

As well as employing staff, RSPB reserves spend money on a variety of goods and services required for reserve management and other conservation-related activities. These include agricultural and forestry services, construction, retail products, communications, transport, and a range of business and other services. This expenditure helps to provide income and employment for local businesses. As well as “direct effects” from the initial expenditure, there will also be “indirect effects” on the local economy, as suppliers will go on to spend some of the money on other local goods and services, and “induced effects”, as the suppliers’ employees also spend money locally. To get the best estimate of the average amount spent by reserves in a given year, data from the past 5 years was collected from each reserve, and used to establish an annual average.

<sup>31</sup> Sustainable Development Commission, 2010, *Improving young people’s lives: The role of the environment in building resilience responsibility and employment chances*.

<sup>32</sup> From Shiel et. al., 2002, *RSPB Reserves and Local Economies*, Royal Society for the Protection of Birds, converted to current prices using HMT GDP Deflators.

The impacts of reserve expenditures were investigated using input:output tables which assess the flows of goods and services between different industrial sectors. They enable an assessment to be made of the impact of a change in demand in one sector on output in other sectors, and in the economy as a whole. The complex inter-linkages between multiple sectors of the economy are a result of the fact that the inputs to production in one sector are supplied by other sectors which in turn require inputs themselves. This means that an increase in demand for the outputs of one sector will have an “indirect” effect by increasing demand for the outputs of other sectors in the economy. Input:output tables enable multipliers to be calculated, which assess the effects of output changes on income and employment. For example, an “employment effect” multiplier for a given sector gives the number of FTE jobs that are supported by £1 million spend. For the ‘Hotels Catering and pubs’ sector in 2007, the employment effect multiplier is 28.76, meaning that £34,770 spend in this area is required to support one FTE job.

Input:output tables are regularly produced at a UK level by the Office for National Statistics. However, they have been less available at a regional or local level, and have not been analysed to provide the relevant type II (direct, indirect, and induced effects) multipliers. Therefore the Scottish Government statistics (as used in Shiel et. al., 2002) remain the best source of data for calculations on the economic impacts of spending in different economic sectors. It was therefore necessary to try to correct for differences between how money moves through economic sectors elsewhere in the UK, compared in Scotland for which the available multiplier data applies.

Following Shiel et. al., 2002, it was assumed that whilst around 90% of reserve spend by reserves in Scotland would be likely to occur within the local economy, only 70% of spend by reserves in England would occur locally. Unfortunately there is little literary evidence on the levels of economic leakage that should be expected from local areas in different parts of the UK, partly due to the fact that it will vary considerably by economic industry and by the local area in question. However, one well received theory is that more rural economies will contain more local industry supply chain links, and so have lower levels of leakage, whereas built-up, urban areas are likely to have businesses with larger scale supply chain links, operating at the national or international level, which will lead to higher levels of local spend leakage.

Shiel et. al. note that a higher level of spending would be expected to remain locally in Scotland as the population is generally less densely distributed and has a more rural makeup than, for example, many areas of England. Thus, we would expect spending in an area such as the Highlands to remain closer to its point source, but

this is less likely in an area such as Cambridgeshire where spending may be more widely spread across the economy.

The same assumption of 70% of spend occurring locally was conservatively applied to Wales and Northern Ireland. It would perhaps be expected that these countries would exhibit similarly low levels of local leakage as Scotland, as they are generally characterised by less urban development than in England. However, to make the estimates of the economic impacts of spend in these areas conservative, and to make the study as comparable as possible with the Shiel et. al., report, these assumptions on leakage will be maintained.

Therefore to analyse UK impacts we have conservatively estimated that 70% of expenditure by reserves in England, Northern Ireland, and Wales occur within the region in which they are based, compared to 90% in Scotland. After accounting for this difference it is assumed that regional employment and income multipliers are similar to those for Scotland. The steps involved in calculating the impacts of reserve expenditure were as follows:

- 
1. Obtaining 5 year data for expenditures by reserves on different goods and services;
  2. Removing data relating to staff costs and internal RSPB transfers;
  3. Allocating expenditures to different industrial sectors;
  4. Dividing this by 5 for each sector to get an estimate of average annual spend in those sectors.
  5. Estimating the proportion of reserve spending occurring within the local economy;
  6. Applying Type II multipliers set out in the Scottish Government input: output tables. The income multiplier, when applied to the annual local spend, gives the amount of household income generated locally by that spend. The employment multiplier, when multiplied by this level of spend and divided by 1 million, gives the number of local FTE jobs supported by this spend.
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Table 2 below presents an example of this process, looking at the economic impact of expenditures by Minsmere RSPB reserve.



Table 2: Example - Calculating the annual local economic impacts of expenditures by Minsmere RSPB reserve

Industry sector	5 year spending	Annual spending	Annual local spend <sup>1</sup>	Type II multipliers <sup>2</sup>		Annual Income in Local Economy	Employment in Local Economy
				Income	Employment <sup>3</sup>		
Gas distribution	51,340	10,268	7,188	0.30	7.15	2,156	0.05
Construction	404,808	80,962	56,673	0.50	14.57	28,337	0.83
Retail distribution	2,199,333	439,867	307,907	0.56	26.00	172,428	8.01
Hotels, catering, pubs	22,447	4,489	3,143	0.53	26.66	1,666	0.08
Air transport	1,251	250	175	0.39	11.46	68	0.00
Transport services	257,307	51,461	36,023	0.56	14.30	20,173	0.52
Postal services	0	0	0	0.64	24.38	0	0.00
Telecoms	63,806	12,761	8,933	0.57	10.46	5,092	0.09
Other business service	77,655	15,531	10,872	0.58	24.10	6,306	0.26
Sanitary services	45,989	9,198	6,438	0.57	14.88	3,670	0.10
<b>Total</b>	<b>3,123,937</b>	<b>624,787</b>	<b>437,351</b>			<b>239,895</b>	<b>9.93</b>

<sup>1</sup> Assuming 70% of expenditure occurs locally – assumption made for communities across England.

<sup>2</sup> Multipliers from Scottish Input:Output tables 2007

<sup>3</sup> FTE Jobs per £1m spending (deflated to 2009 prices).

Annual expenditure by Minsmere reserve averages £624,787 per year, of which £437,351 is estimated to be spent within England. This contributes to the output in 9 of the above 10 economic sectors. Using type II income and employment multipliers it is estimated that through this spending leads to additional output supporting around 10 FTE jobs locally, and income (wages, salaries, profits and rents) of £240,000 per year. The greatest impact occurs because of spending on “retail distribution” at Minsmere reserve.

### 3.4.1 Use of Contractors

A major aspect of direct reserve expenditure comes in the form of commercially contracted work at reserves. Contractors are often used for one-off projects involving forestry, agricultural, habitat restoration or construction work.



For some reserves, it has been possible to estimate the number of contractors employed per site, especially where the same individuals are employed on a regular basis. Where this is not possible, economic impacts can be estimated using expenditure data and appropriate multipliers, as detailed above. To avoid double counting, the economic impacts of contracting were not included in individual or total reserve calculations, but are simply used to further illustrate the ways local reserves contribute directly to local business.

### 3.5 Other Land Use on Reserves

Many RSPB reserves let areas of the land to be used for other industrial activity, as long as this use will complement the ecological and conservation aims of the site. Alternative land use predominantly constitutes lets for grazing by local farmers, however, there are also a small number of reserves that let rights to shooting and extraction of timber.

It is relatively difficult to estimate the economic activity supported by extraction and shooting licenses, and as these rights are offered at only a small number of reserves, their impact across the UK will not be large. However, agricultural tenancies form a far larger aspect of land management on reserves, and therefore support a significant level of activity.

This activity is particularly important as it stresses the diversity of functions that reserves have. Opting to invest in nature conservation as a primary use of land does not mean sacrificing the productive potential of land, and there are many instances when farming practices complement conservation aims.

Calculating additionality in terms of these economic impacts is an uncertain task, as it is not always clear what alternative use land would be put to were it not managed as a reserve. It is therefore more difficult to ascertain whether or not the impacts from this aspect of reserve management are specifically due to the creation of the reserve. Therefore this section examined only the activity supported by this RSPB reserve function, leaving the question of a counter-factual comparison to one side.

#### 3.5.1 The economic impacts of agricultural tenancies on reserves

The employment associated with agricultural lets was estimated based on the labour per head of livestock (split into sheep and cattle) and average stocking rate per hectare for those livestock on RSPB reserves.

Research into the stocking rates for RSPB lets shows that the nature of the grazing varies considerably. For example, for Loch Gruinart, located on the Isle of Islay in Scotland, a let of 60 hectares supports 400 ewes, a stocking rate of 6.67 sheep per hectare. However, for lets on Geltsdale reserve, located in the North Pennines, two fields dedicated to sheep grazing stock around 0.64 ewes per hectare. In terms of livestock units (LUs), comparisons can be made between lets on the Nene washes in Cambridgeshire, which leases over 500 hectares of land stocked at an average rate of 0.49 LUs per hectare, and Geltsdale reserve, where around 2,000 hectares of lets support only around 0.1 LUs per hectare.<sup>33</sup>

These figures imply that due to high variability at individual reserves, assessing the lets on our 10 case study reserves and scaling up to represent all RSPB lets across the UK may not give an accurate representation of the total impact of RSPB grazing lets across the UK. Instead, this section of the methodology focuses on aggregate data, to estimate marginal figures which are then applied to the individual reserve case studies. Therefore, for the 10 case studies contained in this report, an average figure is used for the FTEs supported per hectare of all RSPB grazed land.

Section 14.4 details the methodology used to calculate this figure. The use of this methodology will mean that the FTE job estimates for grazing lets will be less accurate at the individual case study level, and so estimates in these sections should be treated with caution. However, the methods will bear a more accurate reflection of total UK impacts of RSPB grazing lets for the calculations detailed in section 14, as they are based upon aggregate rather than marginal case study data.

The calculations estimate that based on the number of livestock held by RSPB lets, and standard stocking and labour requirements, the average hectare of RSPB grazing lets supports 0.0038 FTEs. **Therefore 263 hectares of grazed land supports 1 direct FTE job.**

In addition to these direct employment impacts, these grazing lets and agricultural tenancies have indirect and induced economic impacts. Farmers and graziers purchase inputs from other businesses, and individuals who profit from this activity also spend money on other goods and services in local economies. The Scottish input:output tables estimate that for every job in agriculture, another 0.32 indirect and 0.16 induced FTE jobs are supported in the Scottish economy by each direct FTE.<sup>34</sup> If we assume that similar multipliers apply for other regions of the UK, we

<sup>33</sup> Data gathered from correspondence with RSPB reserve managers, based on 2009 records held of graziers operating on site. These figures should be considered as approximate, and are used to briefly illustrate the variety of grazing practices that occur on RSPB land.

<sup>34</sup> Scottish Government, 2007, *Input-Output tables*, <http://www.scotland.gov.uk/Topics/Statistics/Browse/Economy/Input-Output/IOAllFiles2007>, visited 16 May 2011.

can estimate that every full time job in agriculture will support a further 0.48 FTE jobs.

### 3.6 Spending by Visitors to RSPB Reserves

Spending by visitors' benefits a wide range of enterprises in the local area, from hotels and campsites to attractions, cafes, local transport, shops and other local businesses, resulting in additional business turnover. A proportion of this turnover is used to meet the wage costs of the proprietors and employees, **directly** supporting employment and local incomes. Businesses in direct receipt of visitor spending in turn also spend some of their turnover on purchasing goods and services from other supply businesses. These purchases in turn boost the turnover of the supplier businesses supporting additional **indirect** employment in those businesses. Finally, employees whose jobs depend directly or indirectly on visitor spending in turn spend money in shops, attractions and other local businesses, resulting in further **induced** jobs and incomes in the area.

These impacts have been assessed through visitor surveys. By asking visitors about local spending, and about the importance of the reserve in encouraging them to visit the area, it is possible to estimate visitor expenditures that can be attributed to the reserve itself.

#### 3.6.1 Surveys

Between April 2009 and March 2010, the RSPB conducted detailed visitor surveys at 9 of the 10 sample reserves (not including Rathlin, see section 3.9 for more information). For the purposes of this report, the results are interpreted as if applicable to the calendar year for 2009. Self-completion questionnaires were made available at visitor centres, and handed out by staff, and immediately returned to either collection boxes, or members of staff. Each questionnaire was given to one individual to complete on behalf of his or her party. In total 2,208 questionnaires were completed across the reserves.

An effort was made to fulfil a quota of 100 completed surveys per quarter per reserve throughout the year. This was not achieved by all of our case studies, with only Titchwell returning greater than the quota of 400 for the year (477 responses). The average number of surveys completed over the year was in fact 245, around 60% of the target quota. In addition, the responses were not completely evenly distributed across the 4 quarters for some of the reserves. In total, 40% of all responses occurred from July to September 2009, and 20% of responses were collected in the other quarters. Given that no quarter delivered significantly less than the uniform

expectation of 25% of responses, it is not expected that the data will lack a robustness to seasonal changes in visitor behaviours.

These surveys captured data on visitor status (holiday-maker/day-tripper/local), nights stayed in local area, motivation for visit, and daily expenditure (broken down into six different areas of spend).

For Frampton Marsh, local business interviews were also performed to gather qualitative information on business owner's perception of the reserve, and the role it plays in attracting visitor spend to the area. Semi-structured interviews were carried out with local business owners by reserve staff.

### 3.6.2 Total spend per visitor

It was assumed that people who visit an RSPB site within their local area do not bring additional economic activity through their visit so that throughout the calculations for visitor spend in this report, only "non-local" "day-tripper" and "non-local" "holiday-maker" spending was included. This assumption means that no account is taken of any local people who may have travelled outside of the local area to spend money, had they not been kept within the area by the reserve. Therefore overall, ignoring spend by local people who visited the reserve will make the estimates of the economic impacts from tourism conservative.

The surveys themselves distinguished between day-trippers from home, and day-trippers from elsewhere. To get data for all non-local day-trippers, it was necessary to calculate average figures for day-trippers from the two categories reported in the surveys (non-local day-tripper from home, non-local day-tripper holidaying elsewhere).

For each reserve, the survey data reported average daily spend per party, split by different visitor types. This was divided by the relevant average party size reported as each reserve to get estimates of average daily spend per person. For day-trippers, it was necessary to calculate a weighted average based on the two types. For holidaymakers, it was necessary to multiply the average daily spend by the number of nights stayed to get average spend per person per trip.

Table 3 below illustrates how this calculation was performed for Minsmere reserve. On average each day-tripper spent £13.92 per visit, and each holiday-maker spent £231.34 per visit.

Table 3: Example - Calculating total spend per visitor at Minsmere

Visitor Type	Daily spend per party (£)	Length of visit (days <sup>35</sup> )	Spend per party per visit (£)	Number of people per party	Spend per person per visit (£)
Day-trippers	35.72	1.0	35.72	2.6	13.92
Holiday makers	113.40	5.1	578.34	2.5	231.34

### 3.6.3 Additional spend per visitor

Using responses on visitors' rationale for coming to the area, it was possible to scale down spend based on the importance of the reserve in visitors' motivation for visiting the region. Respondents were asked what role the reserve had played in motivating them to visit the area, and given the option to reply that it was either the 'main reason', 'one of the reasons', or played no part in their rationale (the option to select 'not sure' was also included in this question). Following Shiel et. al., 2002, for visitors who replied the reserve was the 'main reason', 75% of their spend was considered to be additional to the area as a result of the reserve. For those that replied it was 'one of the reasons', 25% was attributed to the reserve, and for those that replied it was "not a motivation" or "don't know", no spend was attributed. The tables below illustrate this process for day-trippers and holiday makers in the example case of Minsmere:

On average, £6.88 and £90.47 of local spend was attributable to the reserve for each day-tripper and holiday maker respectively that came to Minsmere in 2009.

Table 4: Example - Calculating attributable spend by day-trippers at Minsmere

Importance of reserve	Proportion attributable to reserve	Spend per visitor (£)	Proportion of respondents	Attributable Spend (£)
Main reason	0.75	13.92	0.53	5.53
One reason	0.25	13.92	0.39	1.35
Other	0	13.92	0.08	0.00
<b>Total</b>				<b>6.88</b>

<sup>35</sup> Days spent in the area was assumed to be equal to the reported nights spent for holiday-makers.

Table 5: Example - Calculating attributable spend by holiday makers at Minsmere

Importance of reserve	Proportion attributable to reserve	Spend per visitor (£)	Proportion of respondents	Attributable Spend (£)
Main reason	0.75	231.34	0.35	60.12
One reason	0.25	231.34	0.52	30.35
Other	0	231.34	0.13	0.00
<b>Total</b>				<b>90.47</b>

### 3.6.4 Total additional spend

For each reserve, it was necessary to obtain the most recent annual visitor numbers, and apply the proportions of different visitor types from the survey sample to these figures to get estimates for the total numbers of day-trippers and holidaymakers each year. Total spend per head, and later the attributable spend per head, were each multiplied by the number of annual visitors of each type at reserves to calculate total annual spend and total attributable spend respectively from tourists. Finally, to account for spend that was recorded in the surveys but did not occur locally, for example for petrol that visitors bought at home, the final total spend attributable to the reserve was reduced by 10%, to give the final visitor spend figure. It was not possible to estimate exactly how important this factor might be, however it was supposed that the most likely cause of this misreporting would be from travel spend in other areas. Given that travel spend accounted for 16% of total spend, the assumed 10% non-local spend assumption accounts for up to 62.5% of all travel spend being misreported, which should make the estimates of local attributable spend once again conservative. The table below continues the example of this calculation for Minsmere.

Table 6: Example - Calculating total annual local spend attributable to Minsmere

Visitor Type	Attrib. spend per head (£)	Proportion of visitors	Visits	Total spend (£)	Total attrib. spend (£)	Local attrib. spend (£)
Holiday Makers	90.47	0.42	33,419	7,731,006	3,023,512	2,721,161
Day-trippers	6.88	0.37	29,487	410,333	202,753	182,478
Local	0	0.22	17,365	0	0	0
<b>Total</b>		<b>1.00</b>	<b>80,271</b>	<b>8,141,339</b>	<b>3,226,265</b>	<b>2,903,638</b>

Therefore based on visitor numbers of 80,271 at Minsmere, around £2.9 million spend is brought to the local economy by the reserve.

### 3.6.5 Local economic impacts

To calculate the effects on local income and employment of this spend, it was necessary to establish employment and income effect multipliers related to tourism spend on RSPB reserves. These multipliers allow an assessment of how money spent by visitors moves through the economy, and what impacts are felt locally from tourist expenditure.

Ideally, data would be available for individual regions surrounding each reserve, allowing an assessment to be made of the effects of visitor spending on the local economy. Models such as the Cambridge Tourism Economic Impact Model (Cambridge Model) can be used for individual site studies, taking account of national and regional data to estimate bespoke multipliers for particular reserves. However, such studies require significant local data sets, and are still not ideally placed to estimate aggregate effects of numerous sites across the UK, as this report aims to.

In practice, multipliers are only readily available for parts of the UK, therefore, as with direct reserve spending, this section uses multipliers from Scottish Government input:output tables to establish the extent of the economic impacts. As a result, these estimates of visitor spending are likely to be less precise than those of other studies investigating visitor expenditures at individual reserves, and should be used with some caution.

To establish as robust a method as possible, tailored employment and income effect multipliers for visitor spending at RSPB reserves was established, based on results from the people engagement surveys. Goldman et. al. (1994) recommend 9 steps for constructing a custom tourism multiplier. Fortunately a number of these steps were satisfied by using the multiplier data made available by the Scottish tables.

The remaining tasks involved assessing the areas of spend by visitors to RSPB reserves from the survey data and assigning this spend to one of six broad categories. The results from the aggregate analysis of spend at the 9 reserves surveyed from April 2009-March 2010 can be seen in Table 7 below:

Table 7: Areas of spending by visitors to 9 sample RSPB reserves in 2009

Area of spend	Average spend <sup>36</sup> (£)	Proportion of total spend
Accommodation	29.71	43%
Fares & Petrol	10.95	16%
Meal & Drinks	19.41	28%
Gifts & Souvenirs	5.21	8%
Entry Fees	2.39	3%
Other	1.04	2%
<b>Total</b>	<b>68.71</b>	<b>100%</b>

This analysis mapped well with the results reported in previous studies of spend by visitors to RSPB reserves, as shown in Table 8:

Table 8: Comparison of areas of spend recorded at RSPB reserves

Area of spend	RSPB Reserves study (2011)	Norfolk study (2000) <sup>37</sup>	Conservation Works study (2001) <sup>38</sup>
Accommodation	43%	43%	49%
Fares & Petrol	16%	11%	17%
Meal & Drinks	28%	30%	27%
Gifts & Souvenirs	8%	4%	n/a
Entry Fees	3%	7%	n/a
Other	2%	5%	7%

The areas of spend reported from the 2009-2010 surveys were then allocated into the most relevant sectors for the Scottish Government input:output tables. The Type II Employment Effect and Income Effect multipliers for these sectors were used to create weighted multipliers representing spend by RSPB visitors.

Spend on accommodation and meals & drink was grouped into the multiplier category "Hotels, catering, pubs". Spend on travel and fares was accounted for by "Transport and railways" (to represent rail travel) and "Coke, refined petroleum & nuclear fuel" (to represent petrol expenditure). This spend was weighted based on RSPB survey data which indicated roughly 75% of visitors travel by car compared to 25% by train. Spend on gifts and souvenirs was accounted for by the average of the

<sup>36</sup> Based on an average of each reserve average.

<sup>37</sup> Rayment et. al., 2000, Valuing Norfolk's Coast: The Economic Benefits of Environmental and Wildlife Tourism, RSPB

<sup>38</sup> Rayment and Dickie, 2001, *Conservation Works...for local economies in the UK*, RSPB.



multipliers for all sectors that were classified as “manufactured goods” in the tables, due to the difficulties of specifying what trading sector would best cover this. Entry fees were represented by “Recreational services”, and “Other” spend was accounted for by taking the average of the multipliers from each of the other areas where money was spent.

**Table 9: Estimating multipliers for spending by visitors to RSPB reserves**

Area of spend recorded	Multiplier category <sup>39</sup>	Proportion of total visitor spend	Employment effect (2007)	Income effect (2007)
Accommodation, Meals & drink	“Hotels, catering, pubs”	0.71	28.76	0.53
Travel and fares	“Coke, refined petroleum & nuclear fuel”	0.16 <sup>40</sup>	7.18	0.28
	“Railway transport”		16.27	0.53
Gifts and souvenirs	(Average of all “manufacturing goods”)	0.08	13.18	0.45
Entry Fees	“Recreational services”	0.03	18.12	0.51
Other	Other	0.02	16.70	0.46
<b>Weighted average</b>			<b>23.86</b>	<b>0.49</b>

Therefore according to this weighting, £1 million of local spend by visitors to RSPB reserves supports 23.86 FTE jobs in 2007 prices, i.e. that £41,911 of spending supports one job in the local economy. In 2009 prices, £43,778 visitor spend supports one FTE job. The weighted income effects imply that £1 of spend by visitors who spend in this way supports 49p of local income.

**For the purposes of this report, it will be assumed that £44,000 of local visitor spend supports 1 FTE job, and £1 of spend supports 49p of local income.**

This analysis should be treated with a certain degree of caution, as the spending categories detailed in the surveys and the economic sectors in the multiplier tables were not precisely aligned, meaning that the custom multipliers rely on a number of

<sup>39</sup> Scottish Government, 2007, *Input-Output tables*, <http://www.scotland.gov.uk/Topics/Statistics/Browse/Economy/Input-Output/IOAllFiles2007>, visited 16 May 2011.

<sup>40</sup> 0.75 weighting towards “coke, refined petroleum & nuclear fuel”; 0.25 weighting towards “Railway transport”.

assumptions in attributing spend to each sector. However, this method allows us to roughly cater our estimates on the number of jobs supported by visitor spending to the direct, indirect, and induced effects specific to the areas where money was reported to have been spent.

As a validity check of the figures estimated through this custom tourism multiplier calculation, a literature review of tourism multipliers across different regions in the UK was performed (see Annex I). The table below summarises the findings from this literature review.

**Table 10: Tourism employment multipliers used by studies across the UK**

Report	Commissioned by	Region	Date	Employment multiplier used <sup>41</sup>
<i>Conservation works...for local economies in the UK</i>	RSPB	UK	2001	£45,332
<i>The Economic Impact of Wildlife Tourism in Scotland</i>	The Scottish Government	Scotland	2010	£25,647
<i>Assessing the economic impacts of nature based tourism in Scotland</i>	Scottish Natural Heritage	Scotland	2010	£35,506
<i>The Economic Impact of Tourism: Norfolk</i>	Insight East	East of England	2009	£47,687
<i>The Economic Impact of Tourism: Portsmouth</i>	Tourism South East	South East England	2008	£51,044
<i>Tourism in the Northern Ireland economy: Volume 1</i>	Northern Ireland Tourist Board/DETI	Northern Ireland	2007	£36,395
<b>Average</b>				<b>£40,269</b>

These studies help to build the picture about how tourism spend affects local employment across the UK. Broadly speaking, the studies imply that greater amounts of expenditure are required to support local jobs in regions with larger economies and greater infrastructure, such as the South-East of England, whereas spending has greater local contribution in more rural economies such as Scotland. Estimating a multiplier that can be applied to regions across the UK will always be an uncertain science due to the diversity between different economies. However, the above evidence, with an average figure of £40,268.50 spend supporting 1 FTE job,

<sup>41</sup> The additional spend required to support 1 FTE job in 2009 prices.

suggests that the £44,000 used in this report is an accurate and slightly conservative measure of the employment impact of tourism spend around RSPB reserves in the UK. This conservatism is particularly notable given that the majority of RSPB reserves will be in more rural areas, where the literature review suggests a lower level of spend is required to support each FTE job.

Putting this figure into practice, the table below completes the example of visitor spending at Minsmere reserve to show how the estimated annual visitor spend attributable to the site was converted into employment and income impacts using the above methodology.

**Table 11: Economic impacts of visitor spending at Minsmere in 2009**

Visitor Type	Local attributable spend £	FTE Jobs supported by reserve	Income supported by reserve £
Holiday Makers	2,721,161	61.84	1,333,369
Day-trippers	182,478	4.15	89,414
Local	0	0.00	0
<b>Total</b>	<b>2,903,638</b>	<b>65.99</b>	<b>1,422,783</b>

Therefore 66 FTE jobs and £1.4 million of local income were supported in 2009 by the visitor expenditure of £2.9 million attracted to local areas by Minsmere RSPB nature reserve.

### 3.7 Recap of key assumptions for estimating impacts of visitor spend

- 75% of total spend attributed to the reserve for visitors who claimed it was their 'main reason' for visiting the area.
- 25% of total spend attributed to the reserve for visitors who claimed it was 'one of the reasons' for visiting the area.
- 90% of reported spend by visitors occurred locally.
- Economic activity in the reported areas of visitor expenditure mapped with the activity in the industry sectors for which multipliers were available.
- £44,000 of visitor spend supports 1 FTE job locally across the UK.
- £1 of visitor spend supports 49p of local income across the UK.

### 3.8 Local, regional and national economic impacts

This report primarily aims to assess the economic impacts that reserves have within local communities. Identifying the geographic range within which economic impacts occur can be difficult, and economic infrastructure often does not exist in a uniform way across constituencies or regions in the UK. This report does not aim to strictly define the spatial area which constitutes 'local' to a reserve, as there would be much variability in this when considering reserves in different areas across the UK. Broadly speaking the report aims to identify economic activity within the closest set of communities, i.e. the closest sources of economic activity to a reserve, to which it could contribute.

There is always a risk with such studies that some of the local economic impacts will be overstated unless leakage of economic activity to other regions is accounted for. To do this the calculations attempt to ensure that the economic impact calculations are applicable to a local area. For example, in calculating total visitor spending, 10% of misreporting is accounted for, as discussed above, and when calculating total direct reserve expenditure, 10% and 30% leakage is assumed in Scotland and elsewhere in the UK respectively.

There are still risks that impacts measured may cross local boundaries, due to misreporting of spend by visitors, or varying levels of leakage. In addition, as noted by the Office for National Statistics, indirect economic impacts measured by multipliers also often accrue on a broader spatial scale as the expenditure may go to suppliers elsewhere in the region or nationally.<sup>42</sup> Therefore some flexibility is required around the definition of local impacts. This report has attempted to account for spatial distribution of impacts as thoroughly as possible.

### 3.9 The case of Rathlin

On Rathlin Island, no data on visitor expenditure was collected, and the survey questions around motivation for visit were slightly different to those used at other reserves. Consequently an alternative methodology was used to estimate total annual spend by visitors, and total spend attributable to the reserve.

For day-trippers, spend figures that excluded accommodation and ferry costs from an RPSB study in 2001<sup>43</sup> were used. After taking account of UK Government Gross

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<sup>42</sup> Office for National Statistics, 2010, *Measuring Tourism Locally: Guidance Note Two: Local Economic Impact Modelling Approaches*.

<sup>43</sup> Rayment & Dickie, 2001, *Conservation Works ... for local economies in the UK*, The RSPB

Domestic Product Deflators, the average spend was estimated to be £11.58 per person in 2009 which was then added onto ferry costs for 2009. Based on the 2009 Rathlin Island Ferry Ltd fares, the average return fare was estimated to cost £8.86, once the portion of adult and child fares was factored into the calculation. This gave a total spend by day-trippers per trip of £20.44.

For holiday-makers, due to a lack of data from the initial RSPB study in 2001 the total trip expenditure was taken from the latest UK Tourism Survey.<sup>44</sup> Average spend per trip by holiday-makers in Northern Ireland was £195 in 2009. It was assumed that this figure was applicable to visitors to Rathlin Isle, following which the average return fare was added on to give a total spend per holiday maker per trip of £203.86.

To ascertain how much of this spend should be attributed to the reserve on Rathlin, visitor survey data from between April 2008 and September 2009 was used. Attributability rates were based upon a question in the surveys regarding how important birds and wildlife were in influencing a party's visit. For the proportion of respondents who answered "birds were the main reason", 75% of spend was attributed to the reserve. For those that answered "I am interested in wildlife and nature as a whole" 25% was attributed to the reserve; Finally, for those who answered "I am interested in walking and/or outdoor pursuits" 10% of spend was attributed to the reserve. If either "I have no particular interest in these areas", or "don't know" were submitted, no spend was attributed to Rathlin reserve.

These methods allowed calculations of total visitor spend and attributable visitor spend, following which the usual methodology was applied to measure local economic impacts of visitors to the reserve.

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<sup>44</sup> Visit Britain, 2009, *UK Tourism Survey*.

## 4 Arne

### 4.1 The Reserve

Arne reserve is located 4 miles east of Wareham, Dorset. The reserve boasts vast expanses of open heathland and old oak woodland. There are Dartford Warblers, Nightjars and as many as 22 species of Dragonfly. Wading birds, ducks and geese are present on the reserve including avocets, black-tailed godwits and brent geese. Ospreys are also regularly seen during their migration. In April 2009 a new eco-friendly information centre was constructed with seasonal nest cameras, a wood burner and information about the reserve.

In addition to the habitats currently under active management, the reserve plans to bring additional habitats under active management in the future including the freshwater and tidal reed beds for the benefit of bitterns.

### 4.2 Historical Use

The RSPB took tenure of the area on a lease agreement in the 1960's, with the freehold being acquired in 1979. Prior to this, the Nature Conservancy designated 9 acres of the site as a nature reserve, which started its transformation after the devastation of Arne village and the surrounding land during World War II. Some small-scale farming was possible with a few small mixed farms having cattle, pigs and sheep, plus a few crops on the poor agricultural grade fields that were won from the heath. Crops such as asparagus were grown and shipped to the London markets but on a fairly small scale.

To much uproar from conservationists, ball clay mining on the Arne peninsula started in 1977 and continued throughout RSPB management until this year when the company, Imerys Minerals Ltd, stopped extracting.

### 4.3 The Local Economy

Arne is located in the Purbeck District of Dorset; a small rural area of 156 square miles. It is renowned for its world heritage coast, and famous landmarks such as Lulworth Cove, Durdle Door and Corfe Castle. The local economy is performing well against the regional and national averages. A Dorset County Council report studying

the Purbeck economy<sup>45</sup> found that economic output (Gross Value Added (GVA)) per resident in 2008 was just above the county average, and approximately 88% of working-age people are economically active, constituting roughly 17,700 employees.<sup>46</sup>

The majority of employment was found to be in the service sector. About half of employment in the district was in two sectors: public administration, education and health and Distribution, hotels and restaurants. Tourism is an important aspect of the local economy, contributing approximately £95.2 million of output in 2008.

According to Dorset Council, employment growth over the coming years is likely to be service-sector led which includes the hotels and catering sector, implying that tourism attractions that boost spending in these areas even more important for local development.

## 4.4 Arne Reserve and the Local Economy

### 4.4.1 Direct Employment

In 2009 Arne employed 7 full time and 1 part time members of staff, including wardens, estate workers, an information officer and a part time administrative assistant. In total, these employment figures corresponded to **7.5 FTE jobs**.

The reserve also hosted 1,134 volunteer working days in 2008/9.

### 4.4.2 Spending by Employees and Volunteers

Assuming that each RSPB reserve employee gives rise to a further 0.1 FTE jobs in local economies, the 7.5 FTE staff working at Arne supported **0.75 additional local FTE jobs**.

Assuming volunteers spend £7 a day whilst working, the 1,134 working days completed by volunteers in 2008/9 supported a total of £7,938 of local spend. This supported **an estimated 0.18 FTE jobs in the region**.

### 4.4.3 Direct Reserve Expenditures

Expenditure by the RSPB in managing the reserve totalled £1,513,870 between 2004/5 and 2008/9. Excluding staff costs, expenditure totalled £552,590 over this period, an average of £110,518 a year.

<sup>45</sup> Gray, 2009, *Purbeck: A profile of the economy and labour market*, Dorset County Council.

<sup>46</sup> Office for National Statistics, 2008, *Annual Business Inquiry*, cited <http://www.dorsetforyou.com/345037>.

The reserves largest expenditures have been on transport and equipment costs, subcontract projects (mainly ecological projects), and travel and subsistence costs. However, in 2008/9, substantial costs were incurred in building and reserve vehicle expenditures.

To account for leakage from the local economy, and using multipliers derived from the Scottish input: output tables, it is estimated that this expenditure supported income of £40,619 and **1.15 FTE jobs locally**, taking account of direct, indirect and induced effects.

**Table 12: Local contracts undertaken at Arne reserve, 2008/9**

Type of work	Expenditure
Bracken Spraying	£2,600
Plant hire, digger, dumper rollers etc	£2,000
Mature pine removal	£17,000
Gorse control/removal	£6,335
Rhododendron control, cutting and chemical spraying	£1,840
Farm management, cover crops, hedges	£1,000
Ditches	£850
Pond management	£800
Bracken litter removal	£2,285
Bare ground / sand exposures	£1,400
Arable weed management	£400
Deer control	£9,000
Machinery repair and maintenance	£6,750
Minor equipment etc	£7,000
Health and safety equipment	£2,000
Publicity materials, leaflets etc	£1,200
Buildings repair etc	£4,729
Cleaning etc	£1,280
<b>Total</b>	<b>£71,969</b>

Local contracts taken out in 2008/9 amounted to £72,000, which are detailed below to give examples of how this money is spent. The largest expenditures were in mature pine removal, minor equipment and machinery repair.

#### 4.4.4 Other Land Use on the Reserve

The reserve had 2 grazing tenants on grassland amounting to 392.83 hectares (360ha and 32.83ha) in 2009. In addition, there were 2 shooting licenses, one with Dorset



Wildfowlers Association and one with GWR Hole, a sailing license with Sherborne School Sailing Club, a farm business tenancy agreement for a farm building, a drainage agreement, a pipeline lease, a property let and an access agreement.

Using average stocking rates for livestock on RSPB lets, along with the latest industry data on labour requirements per unit of livestock, it is estimated that these lets directly supported 1.49 FTE jobs. This direct employment is estimated to have created a further 0.72 jobs in the wider economy through indirect and induced effects. Therefore a total of **2.21 FTE jobs** were supported by the agricultural lets alone at Arne in 2009.

Arne's largest source of product income is revenue from culling sales. This amounted to £22,382 between 2005/6 and 2008/9, however the annual amount increased largely year on year within this period, ranging from £941 in 2005/6 to £8,198 in 2008/9.

#### 4.4.5 Visitor Spending

Arne had 77,410 visitors in 2009. From April 2009 to March 2010, a sample of 273 visitors was surveyed to gain estimates of the economic impacts their visits had on the local economy. The main results of the surveys are shown below:

- Around 20% of all respondents said that Arne reserve was the main reason in them visiting the area.
- 74% said that Arne was one or the main reason for visiting the area.
- 41% of visitors were holiday makers, 27% day-trippers, and 32% lived locally to the reserve.
- Holiday makers spent on average 5.8 nights local to the reserve.
- Day-trippers spent £9.73 per person per trip in the local area, whilst holiday makers spent £133.

The tables below show results from the surveys on visitor spend, and show the calculations of total, attributable, and local visitor spend, and the economic impacts within the local economy. Table 13 and 14 illustrate the following results:

- Total spend by visitors to the reserve was around **£4.4 million**.
- Total spend attributable directly to the reserve was around **£1.2 million**.
- Local spend attributable directly to the reserve was around **£1.1 million**.
  
- **25.54 FTE jobs** supported in local area by tourism to the reserve.
- **£550,594 of local income** supported by visitor spend.

Table 13: Annual local spend by visitors to Arne reserve

Visitor Type	Spend per head (£)	Attributable spend per head (£)	Proportion of visitors	Annual visitor numbers	Total spend (£)	Total attributable spend (£)	Local attributable spend (£)
Holiday Makers	133.00	37.56	0.41	31,474	4,186,095	1,182,184	1,063,966
Day-trippers	9.73	3.12	0.27	21,266	206,999	66,327	59,695
Local	0	0	0.32	24,669	0	0	0
<b>Total</b>			<b>1</b>	<b>77,410</b>	<b>4,393,094</b>	<b>1,248,511</b>	<b>1,123,660</b>

Table 14: Economic impacts of local spend by visitors to Arne

Visitor Type	FTE Jobs supported by reserve	Income supported by reserve (£)
Holiday Makers	24.18	521,343
Day-trippers	1.36	29,250
Local	0.00	0
<b>Total</b>	<b>25.54</b>	<b>550,594</b>

These figures show the important role Arne plays in attracting tourism to the local area, and supporting jobs within local communities.

#### 4.4.6 Total Employment Impact

Combining the various economic impacts listed above, it is estimated that Arne reserve supported around **37 FTE jobs in 2009**.

Table 15: Arne – estimated total employment impact in 2009

Economic impact	FTE Jobs supported
Direct employment	7.5
Spending by employees	0.93
Direct reserve expenditures	1.15
Grazing lets/agricultural tenants	2.21
<b>RSPB and farming activities total</b>	<b>11.79</b>
Visitor spending	25.54
<b>Total</b>	<b>37.32</b>

## 4.5 Conclusion

Arne reserve supported over 37 FTE jobs in the local economy in 2009, predominantly through the huge number of visitors that are attracted to the site who spend money in the local economy. The transformation in land use in the area this year from ball clay mining to nature conservation is likely to enhance the benefits delivered by the reserve, with further jobs being supported in the process of habitat creation, as well as in the future through increases in visitor numbers at the site.

This is a valuable source of employment within the Purbeck district. The reserve also contributes to the natural heritage of this coastal area in ways that are not reflected solely by the measurable economic impacts, in that it delivers cultural and recreational benefits to the tens of thousands of visitors, volunteers, and local residents who engage with the site.

## 5 Bempton Cliffs

### 5.1 The Reserve

The RSPB Bempton Cliffs nature reserve is one of the best places in the UK to witness the sights, sounds...and smells of almost ¼ million breeding seabirds. The reserve, which was first purchased by the RSPB in 1969, supports the largest mainland Gannetry in the UK, more than 37,000 pairs of Kittiwakes, one of the largest colonies in the UK, plus thousands of Guillemots, Razorbills and Puffins and protects over 5 kilometres of sea cliffs. It boasts a small purpose-built visitor's centre, as well as five specially-created cliff top view points. There is a tour operator offering sightseeing cruises around the sea cliffs themselves, and last year the reserve leased a contract out with an ethical foods retailer in response to the growing number of tourists.

The seabirds are best seen from March–September; however the reserve and the centre are open all year round. While the land-based breeding colony at Bempton Cliffs is protected, the marine areas that the breeding seabirds depend upon for feeding and other essential activities, such as resting, are not. The evidence in this study further emphasises the importance of designating these areas as Marine Protected Areas (MPAs).

### 5.2 Historical Land Use

Until 1954, when it was made illegal under the Protection of Birds Act, local residents would use the cliffs at Bempton for "egg climbing", a local term used to describe the act of climbing down the cliffs to take bird eggs for subsistence, selling or collecting. Indeed, the Sea Birds Preservation Act (1869), which was the first piece of wildlife legislation in the UK, was brought about in part to protect the birds and thus the climbers at the cliffs. Before this Act, the birds on the cliffs were often shot for sport. This affected the local climbers' harvest as well as ships that would use the seabird cries to warn them of nearby cliffs in the night. Indeed, sailors knew the cliff birds as the "Flamber Pirates".

### 5.3 The Local Economy

Bempton Cliffs is located in the East Riding of Yorkshire. In 2007, the area had a GVA per head of £13,055, significantly lower than the £16,670 county average, and £20,458 national average. This implies that economic prosperity in the region are

relatively low; however, employment opportunities may be more promising, as employment levels were 77.8% in 2009/10, slightly above the regional and national averages.<sup>47</sup>

A recent report from the Yorkshire Tourist Board concluded that “the East Riding is in an excellent position to take advantage of its natural and historic attributes for tourism, attracting new business and for the quality of life of its residents”. In 2006 the total value of tourism in the East Riding was estimated at £435m, supporting 8,014 FTE jobs.<sup>48</sup>

Projections made under the East Riding Economic Development Strategy 2007-2011 suggest that the business base will remain diverse, but the growth of key sectors will be important in strengthening the area’s economic identity, with particular focus included on food and drink, environmental industries, and cultural industries/tourism.<sup>49</sup>

## 5.4 Bempton Cliffs and the Local Economy

### 5.4.1 Direct Employment

Bempton Cliffs employed 4 full time and 2 part time staff in 2009. The full time members included a retail manager, a membership development officer, a community education officer and a site manager. Part time staff at the reserve consisted of an administrator and a maintenance worker employed for 3.5 days a week. Additionally, over summer 5 more members of staff were employed on full-time 6-month contracts as membership recruiters and retail assistants. In total, this equated to **7.7 FTE jobs**.

The reserve hosted 40 volunteers per week, accruing 4,000 volunteer hours that year.

### 5.4.2 Spending by Employees

Assuming that each RSPB reserve employee gives rise to a further 0.1 FTE jobs in local economies, the 7.7 FTE staff working at Bempton Cliffs supported approximately **0.77 additional local FTE jobs**.

<sup>47</sup> East Riding of Yorkshire Council, 2011, *The East Riding of Yorkshire: Local Economic Assessment*.

<sup>48</sup> Yorkshire Tourist Board, 2006, *Economic Impact Assessment*, for Visit Hull and East Yorkshire (VHEY).

<sup>49</sup> East Riding Local Strategic Partnership, *East Riding Economic Development Strategy 2007-2011* <http://www.eastriding.gov.uk/corp-docs/business/economicdevelopmentstrategy2007.pdf>, visited 6 April 2011.

Assuming volunteers spend £7 a day whilst working, then during the 4,000 hours of work, equivalent to 533 days, at Bempton, volunteers will have spent a total of £3,731 locally in 2009, supporting **0.09 FTE jobs**.

### 5.4.3 Direct Reserve Expenditures

Expenditure by the RSPB in managing the reserve totalled £1,283,411 between 2004/5 and 2008/9. Excluding staff costs, expenditure totalled £776,914 over this period, an average of £155,383 a year. Much of this expenditure was spent on building maintenance, travel costs, and the costs of retail and catering.

Using multipliers derived from the Scottish input: output tables, it is estimated that this expenditure supported income of £60,000 and **2.63 FTE jobs locally**, taking account of direct, indirect and induced effects.

Much of the reserve's contract expenditure was on locally sourced labour and goods. The reserve employed a local firm (Warcups) to lay new paths with disabled access in early 2009 that came to approximately £5000. Another company called Homeground was used annually for general maintenance and plumbing; this totals approximately £2,000 every year. Finally, a local company, CDM Construction, refitted the visitor's centre in 2009 for £2,000.

### 5.4.4 Visitor Spending

Bempton Cliffs had an estimated 66,400 visitors in 2009. From April 2009 to March 2010, a sample of 264 visitors was surveyed to gain estimates of the economic impacts their visits had on the local economy. The main results of the surveys are shown below:

- Around 41% of all respondents said that Bempton cliffs reserve was the main reason in them visiting the area.
- 83% said that Bempton was one or the main reason for visiting the area.
- 43% of visitors were holiday makers, 46% day-trippers, and 11% lived locally to the reserve.
- Holiday makers spent on average 5.1 nights local to the reserve.
- Day-trippers spent £12.96 per person per trip in the local area, whilst holiday makers spent £189.36.

The tables below show results from the visitor surveys on visitor spend, and show the calculations of total visitor spend, attributable visitor spend, and the economic impacts associated with this spend.

Table 16: Annual local spend by visitors to Bempton Cliffs reserve

Visitor Type	Spend per head (£)	Attributable spend per head (£)	Proportion of visitors	Annual visitor numbers	Total spend (£)	Total attributable spend (£)	Local attributable spend (£)
Holiday Makers	189.36	61.67	0.43	28,421	5,381,786	1,752,783	1,577,505
Day-trippers	12.96	6.67	0.46	30,433	394,324	202,961	182,665
Local	0	0	0.11	7,545	0	0	0
<b>Total</b>			<b>1.00</b>	<b>66,400</b>	<b>5,776,110</b>	<b>1,955,744</b>	<b>1,760,170</b>

- Total spend by visitors to the reserve was around **£5.8 million**.
- Total spend attributable directly to the reserve was around **£2 million**.
- Local spend attributable directly to the reserve was around **£1.8 million**.

Table 17: Economic impacts of local spend by visitors to Bempton Cliffs

Visitor Type	FTE Jobs supported by reserve	Income supported by reserve (£)
Holiday Makers	35.85	772,977
Day-trippers	4.15	89,506
Local	0.00	0
<b>Total</b>	<b>40.00</b>	<b>862,483</b>

- **40 FTE jobs** supported in local area by tourism to the reserve.
- **£862,483 of local income** supported by visitor spend.

These figures show the important role Bempton Cliffs plays in attracting tourism to the local area, and supporting jobs within the local community.

## 5.5 Total Employment Impact

Combining the various economic impacts listed above, it was estimated that Bempton Cliffs reserve supported around **51 FTE jobs in 2009**.

Table 18: Bempton Cliffs – estimated total employment impact in 2009

Economic impact	FTE Jobs supported
Direct employment	7.7
Spending by employees	0.86
Direct reserve expenditures	2.63
<b>RSPB and farming activities total</b>	<b>11.19</b>
Visitor spending	40
<b>Total</b>	<b>51.19</b>

## 5.6 Conclusion

This unique and iconic coastal reserve is responsible for supporting over 51 jobs in the local community. Although these economic impacts are attributed to the reserve as a whole, the results also have relevant messages for the importance of marine species and seabirds in stimulating local employment. 40 of these jobs are supported by visitor spending, illustrating the importance of tourism to the impacts. Of this, an estimated 21.5 FTE jobs were supported at Bempton Cliffs in 2009 solely by tourism spend attributable to seabirds.<sup>50</sup> Both of these studies make the case for preserving the marine life and the quality of the natural environment.

With the advent of the UK Marine & Coastal Access Act 2009 and the Marine (Scotland) Act 2010, and the promise of a Marine Bill in Northern Ireland, we now have the full suite of relevant legislation in place. The next step is to ensure that it is applied effectively and that marine protected areas (MPAs) are designated for those areas at sea which are important for seabirds. As shown in this study, the case for these designations contains a local economic element related to wildlife tourism which should be taken into account by decision makers.

<sup>50</sup> RSPB, 2010, *The Local Value of Seabirds: Estimating spending by visitors to RSPB coastal reserves and associated local economic impact attributable to seabirds*, The RSPB, Sandy, UK.



## 6 Frampton Marsh

### 6.1 The Reserve

Frampton Marsh is at the leading edge of visitor and habitat nature conservation planning. It is situated in Lincolnshire, on the coast of The Wash, 4 miles from the town of Boston, between the outflows of the rivers Welland and Witham. There are a large number of nesting redshanks, lapwings and ducks in the summer and brent geese are common in winter. Birds of prey, such as hen harriers, merlins and short-eared owls are regular visitors.

Since 2004 there have been significant developments to improve conservation and people engagement at the site. This started with the purchase of 84 hectares and long-term lease of 95 hectares of arable land adjacent to the existing land holdings. In February 2008, work started on this major new extension to create a reedbed, large freshwater scrapes and wet grassland.

In September 2008, work began on improving visitor facilities, in order to encourage people to utilise the reserve and increase its status as a major tourist attraction. New facilities include a visitor centre with a refreshment area for snacks and drinks, three bird watching hides and 3.5km of new footpaths.

Between 2004 and 2009, roughly £1.6 million was invested in the development of the reserve, of which £900,000 was spent on land acquisition, £400,000 on developing habitats, and £300,000 on developing visitor facilities.

### 6.2 Historical Land Use

The RSPB first got involved with the site in 1984 through the acquisition of an area of saltmarsh. The Society managed the area by grazing with cattle but nothing significantly different to what had gone before. It did however protect the salt marsh from over grazing/under grazing and a wardening presence helped mitigate against potentially damaging activities such as commercial bait digging and Samphire collecting.

## 6.3 The Lincolnshire Local Economy

According to the Lincolnshire Assembly Economic Strategy for 2008-2012, economic productivity within Lincolnshire remains lower than the East Midlands regional average; however, in the medium-term GVA is expected to grow more rapidly, at 31.5% compared with 30.2% for the region. In terms of employment rates, the county has an active population and employment growth is expected to continue at a rate (5.6%) above the regional average (3.1%). However, Lincolnshire has a higher proportion of people working in low wage, low skilled employment such as machinery operations than anywhere else in the region.<sup>51</sup>

Tourism in Lincolnshire plays a significant role in the local economy. In 2009, tourism was responsible for £971.64 million of local spending, and supported 17,175 FTE jobs.<sup>52</sup>

## 6.4 The Impact of Frampton Marsh on the Local Economy

### 6.4.1 Direct Employment

In 2009, Frampton Marsh employed 4 full time members of staff; a site manager, 2 wardens, and a visitor and publicity officer. Additionally, 3 part time members of staff were employed as field teachers, including one lead field teacher. In total, this equated to **4.5 FTE jobs**.

The reserve generated 875 volunteer hours in 2008/9 between 15 volunteers.

### 6.4.2 Spending by Employees

Assuming that each RSPB reserve employee spends money that supports a further 0.1 FTE jobs in local economies, the 4.5 FTE staff working at Frampton Marsh in 2009 supported **0.45 additional local FTE jobs**.

In addition, assuming volunteers spend £7 a day whilst working, and that a total of 15 volunteers completed 875 hours of work in 2008/9, equivalent to 117 days, then volunteers spent a total of £819 locally. This supported **0.02 FTE jobs** in the region. It

<sup>51</sup> Lincolnshire Assembly, *Lincolnshire Economic Strategy 2008-2012*, [http://www.lincolnshireassembly.com/upload/public/attachments/926/draft\\_LES\\_20082012\\_v5\\_2\\_2.pdf](http://www.lincolnshireassembly.com/upload/public/attachments/926/draft_LES_20082012_v5_2_2.pdf), visited 6 April 2011.

<sup>52</sup> East Midlands Tourism, 2010, *Lincolnshire: Volume and value of tourism 2009*, East Midlands Development Agency.

is worth noting that this is expected to rise in the near future with the completion of Frampton's new visitor centre, which will be staffed predominantly by volunteers.

### 6.4.3 Direct Reserve Expenditures

For the RSPB's Lincolnshire Wash reserves, Frampton Marsh and Freiston Shore, expenditure in managing the reserves totalled £1,434,500 between 2004/5 and 2008/9. Excluding staff costs, expenditure totalled £1,107,612 over this period, an average of £221,522 a year.

Of the total Lincolnshire Wash spend of £1,107,612 around £857,612 was spent at Frampton Marsh, an average of £171,522.

Using multipliers derived from the Scottish input: output tables, it is estimated that this average annual spend at Frampton Marsh **supports income of £79,000 and 2.32 FTE jobs locally**, taking account of direct, indirect and induced effects.

The majority of the expenditure was spent on subcontract projects (primarily ecological and infrastructure projects), travel, and land maintenance. In 2008/9, for example, 3 large one-off costs were incurred; £208,884 was spent on building projects, £22,797 on machinery and equipment, and £41,300 on reserve vehicles.

Each year is obviously very variable depending on what needs to be done. During 2008/09, for example, with the developments at Frampton Marsh the amount of money spent on contractors would have been considerably higher than an average year (estimated at £310,000).

### 6.4.4 Other Land Use on the Reserve

Frampton Marsh, as with many RSPB reserves, is host to various lets and tenancies that enable local businesses to make use of the land on the reserve, ensuring that it is used as productively as possible.

In 2009, the reserve had 4 grazing lets on grassland, amounting to 410.82 hectares (211.29ha, 85.85ha, 29.63ha, and 84.05ha). Additionally, a wildfowl licence was leased to South Lincolnshire Wildfowlers covering 130.83 hectares of grassland, and there was also a single property let to Natural England.

Using average stocking rates for livestock on RSPB lets, along with the latest industry data on labour requirements per unit of livestock, it is estimated that these lets

directly supported 1.56 FTE jobs in 2009. This created a further 0.75 jobs in the wider economy through indirect and induced effects. Therefore a total of **2.31 FTE jobs** were supported by the agricultural lets at Frampton Marsh.

#### 6.4.5 Visitor Spending

Frampton had 32,054 visitors in 2009. From April 2009 to March 2010, a sample of 230 parties were surveyed to gain estimates of how much money visitors spent on their trip, where they spent it, and what their motivation for coming to the local area was. The main results of the surveys are shown below:

- Around 59% of all respondents said that Frampton Marsh reserve was the main reason in them visiting the area.
- 87% said that Frampton was one or the main reason for visiting the area.
- 20% of visitors were holiday makers, 42% day-trippers, and 38% lived locally to the reserve.
- Holiday makers spent on average 3.9 nights local to the reserve.
- Day-trippers spent £6.40 per person per trip in the local area, whilst holiday makers spent £108.50.

The tables below show results from the visitor surveys on visitor spend, and show the calculations of total visitor spend, attributable visitor spend, and the economic impacts associated with this spend.

**Table 19: Annual local spend by visitors to Frampton Marsh reserve**

Visitor Type	Spend per head (£)	Attributable spend per head (£)	Proportion of visitors	Annual visitor numbers	Total spend (£)	Total attributable spend (£)	Local attributable spend (£)
Holiday Makers	108.50	41.63	0.20	6,411	695,542	266,894	240,205
Day-trippers	6.40	3.80	0.42	13,518	86,585	51,326	46,193
Local	0	0	0.38	11,985	0	0	0
<b>Total</b>			<b>1.00</b>	<b>31,915</b>	<b>782,127</b>	<b>318,220</b>	<b>286,398</b>

- Total spend by visitors to the reserve was around **£780,000**.
- Total spend attributable directly to the reserve was around **£320,000**.
- Local spend attributable directly to the reserve was around **£280,000**.

Table 20: Economic impacts of local spend by visitors to Frampton

Visitor Type	FTE Jobs supported by reserve	Income supported by reserve (£)
Holiday Makers	5.46	117,700
Day-trippers	1.05	22,635
Local	0.00	0
<b>Total</b>	<b>6.51</b>	<b>140,335</b>

- **6.51 FTE jobs** supported in local area by tourism to the reserve.
- **£140,335 of local income** supported by visitor spend.

These figures show the important role Frampton Marsh plays in attracting tourism to the local area, and supporting jobs within the local community.

It must also be noted that visitor numbers recorded at the reserve have increased significantly since the developments in visitor facilities detailed earlier in the report. If we assume that visitors will have had roughly the same impact on employment over these years, it is possible to compare the impacts the reserve has had throughout its development. In 2009, 4,923 visitors supported 1 FTE job

Table 21: Annual visitor numbers and jobs supported at Frampton Marsh

Year	2002	2003	2004	2005	2006	2007	2008	2009	2010
Visitors	7,444	6,737	8,323	14,008	9,271	7,932	14,414	32,054	42,540
FTE Jobs	1.51	1.37	1.69	2.85	1.88	1.61	2.93	6.51	8.64

These figures show the importance of Frampton Marsh, and in particular its newly updated visitor facilities, in promoting tourism in the Lincolnshire Wash area, and providing income and employment to local communities. The investment made by the RSPB in recent years on developing visitor facilities has facilitated an increase of 300% in employment supported by tourism to the site. It should also be considered that the site attracts visitors to a more remote area than many other reserves, delivering benefits to smaller local economies.

## 6.5 Total Employment Impact

Combining the various economic impacts listed above, it was estimated that Frampton reserve supported around **16 FTE jobs in 2009**.

Table 22: Frampton – estimated total employment impact in 2009

Economic impact	FTE Jobs supported
Direct employment	4.5
Spending by employees	0.47
Direct reserve expenditures	2.32
Grazing lets/agricultural tenants	2.31
<b>RSPB and farming activities total</b>	<b>9.6</b>
Visitor spending	6.51
<b>Total</b>	<b>16.11</b>

## 6.6 Business Surveys

Face to face interviews of 6 local businesses were conducted to gain qualitative evidence on the local perception of the reserve, and its role within the local economy. Of those businesses surveyed, five classed themselves as being in the “tourism” industry, offering accommodation, and one, a local pub, operated in “food and drink”.

When asked what the main 3 reasons people visited the area were, all 6 respondents included wildlife viewing in their responses, with 3 referencing bird watching specifically, 2 referencing the RSPB, and 1 referencing Frampton Marsh itself. When asked to estimate the amount of local tourism that was associated with the natural environment, responses ranged from 10% to 90%, with 4 out of 6 respondents estimating that the figure was at least 25%. Regarding the role of Frampton Marsh in the motivation of customers, 2 respondents noted that the reserve was “very” important. Finally, when asked about the proportion of the businesses turnover that can be attributed to Frampton Marsh, only one respondent felt that they could make an adequate estimate, quoting a figure of 20%.

These responses support the data gathered from visitors to the reserve, establishing that the natural environment, and specifically this reserve, play an important role in attracting tourists to the local economy.

## 6.7 Conclusion

Frampton Marsh reserve supported over 16 FTE jobs in local communities in 2009. The largest proportion of jobs were supported by spend by visitors to the reserve, a contribution which has increased significantly in recent years. It is expected that the

increase in tourists to the reserve has been due to the development of the visitor facilities on site, illustrating how developments at reserves make both current, and ongoing, contributions to local economic activity.

The reserve is an integrated part of the surrounding community, offering opportunities to local volunteers, and supporting local agriculture, contractors and other businesses. Aside from the tangible economic impacts, the reserve offers significant well-being benefits to those who engage with the site, through improving health, education, and offering valuable recreational and cultural experiences. This illustrates that beyond its conservation function, Frampton offers an opportunity for people to enjoy nature, and supports local business, delivering a variety of benefits to the local area.

## 7 Lakenheath Fen

### 7.1 The Reserve

Lakenheath Fen reserve comprises a mixture of wetland and woodland south of the Little Ouse in Suffolk. It is best known for its breeding golden orioles. Centuries ago it was lost to agriculture and was once mostly carrot fields, yet since 1995 the RSPB have been working to restore approximately 200 hectares of the reserve to washland, wet reedbed, ungrazed fen and wet grassland. This has encouraged many birds including cranes, bitterns, bearded tits, marsh harriers, lapwings and redshanks, as well as other wetland wildlife.

With its wetlands restored, Lakenheath Fen will join an integrated network of other nature reserves including Wicken Fen, Chippenham Fen, Woodwalton Fen and the washlands of the rivers Great Ouse and Nene. Many of these, too, are undergoing similar restoration. The network will also aid in the replacement of coastal marshes before sea level rises change such habitats to a saline ecosystem. Lakenheath Fen also protects an area of poplar-dominated woodland, which is managed for its breeding golden orioles.

The reserve was opened to the public in 2004, and £710,000 was invested in the development of a visitor centre, which was opened in 2007.

### 7.2 Historical Use

From the mid-1960's until the 1980's, Poplar forest covered the reserve's area and was harvested for the production of matches and loading pallets. From the mid-1980's until the RSPB purchased the reserve in 1995, most of the area was arable land.

### 7.3 The Local Economy

Lakenheath Fen is located in Suffolk, a largely rural area with a population of 714,000 in 2009. Around 42% of the Suffolk population live in rural areas, and approximately 86% of the county's parishes have a population smaller than 1,000. In 2006, GVA per head was £16,297, compared with higher regional and UK GVA's per head of £17,890 and £19,430 respectively in the same year, and median gross weekly earnings for Suffolk residents were £449 in 2008 compared to regional earnings of £498 and UK



earnings of £478. These figures imply that the area is characterised by relatively low economic productivity and incomes.

There were 290,600 employees working in the county in 2007, of which approximately 25,000 worked in Forest Heath, the district within which Lakenheath Fen is located. Forest Heath has the lowest number of employees in the county, as well as the lowest number of VAT registered businesses. Distribution, hotels and restaurants employ approximately 70,000 employees in the county, which is the second highest sector after public administration, education and health.<sup>53</sup>

### 7.3.1 The Recession

The number of claimants of unemployment benefits in Suffolk increased by 6,864 in the 12 months to May 2009. Suffolk's total number of claimants thus stood at 14,209, representing 3.4 per cent of the county's working age population, which is below the regional and national rate. It is possible that seasonal employment opportunities may be assisting in preventing further rises. Suffolk has experienced a number of large-scale redundancies, particularly in the food industry.

## 7.4 Lakenheath Fen and the Local Economy

### 7.4.1 Direct Employment

In 2009, Lakenheath Fen employed 4 full time members of staff, and one part time administrator working 4 days a week. The full time staff consisted of a site manager, warden, reserve assistant, and an information officer. In total, this equated to **4.8 FTE jobs**.

The reserve also uses 30 volunteers, of which 10 are regular. They worked for the equivalent of 340 person days in 2008/9.

### 7.4.2 Spending by Employees

Assuming that each RSPB reserve employee gives rise to a further 0.1 FTE jobs in local economies, the 4.8 FTE staff working at Lakenheath Fen in 2009 supported **0.48 additional local FTE jobs**.

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<sup>53</sup> Insight East, 2009, *Economic Profile: Suffolk*, East of England Development Agency.

Assuming volunteers spend £7 a day whilst working, and that a total of 30 volunteers completed 340 person days of work in 2008/9, then volunteers spent a total of £2,380 locally in 2009, supporting **0.05 FTE jobs** in the area.

### 7.4.3 Direct Reserve Expenditures

Expenditure by the RSPB in managing the reserve totalled £597,340 between 2004/5 and 2008/9. In addition, £710,000 was received from a number of sources, including HLF, Suffolk Development Agency, WREN, and Suffolk County Council, for the development of the visitor centre. Therefore excluding staff costs, expenditure totalled £991,913 over this period, an average of £177,759 a year. Much of this expenditure was spent on subcontract projects (mainly ecological and visitor-related projects) and travel costs, and construction of the visitor centre.

Using multipliers derived from the Scottish input: output tables, it is estimated that this expenditure supports income of around £69,332 and **2.01 FTE jobs locally**, taking account of direct, indirect and induced effects.

Much of the reserve's expenditure was on locally sourced labour and goods. Nearly every year the reserve uses three to four earth-moving contractors all within a 30-mile radius of the reserve. Over 2008/9, earth-moving contracts came to £25,000. In addition, fence contractors are used annually (at approximately £8,000 a year, largely on newly acquired land), and caterers are used for reserve events, with a local tree feller and landscaper occasionally drafted in for work on the reserve. Large sluices used for water control were purchased from a local steel fabricator in 2008/9 for a cost of £2000, and a local joinery company was used to construct a timber viewing shelter (£1,500). Other miscellaneous contractors in the area during 2008/9 were also used at a cost of £9,500. The reserve also sources many of its suppliers from the surrounding area. A local timber yard supplies pine from the nearby Thetford Forest, and a local joiner is used for the construction of picnic tables and benches.

### 7.4.4 Other Land Use on the Reserve

In 2009, the reserve had one grazier who used 59 hectares of grassland, and one property lease granted by the reserve. Using average stocking rates for livestock on RSPB lets, along with the latest industry data on labour requirements per unit of livestock, it is estimated that this grazing let directly supported 0.22 FTE jobs directly, and a further 0.11 jobs through indirect and induced effects in the wider economy. Therefore overall the other land use on the reserve supported an estimated **0.33 FTE jobs**.

### 7.4.5 Visitor Spending

Lakenheath Fen had 30,999 visitors in 2009. From April 2009 to March 2010, a sample of 166 visitors was surveyed to gain estimates of the economic impacts their visits had on the local economy. The main results of the surveys are shown below:

- Around 73% of all respondents said that Lakenheath Fen reserve was the main reason in them visiting the area.
- 94% said that Lakenheath Fen was one or the main reason for visiting the area.
- 20% of visitors were holiday makers, 67% day-trippers, and 13% lived locally to the reserve.
- Holiday makers spent on average 3.5 nights local to the reserve.
- Day-trippers spent £4.41 per person per trip in the local area, whilst holiday makers spent £117.21.

The tables below show results from the visitor surveys on visitor spend, and show the calculations of total visitor spend, attributable visitor spend, and the economic impacts associated with this spend.

**Table 23: Annual local spend by visitors to Lakenheath Fen reserve**

Visitor Type	Spend per head (£)	Attributable spend per head (£)	Proportion of visitors	Annual visitor numbers	Total spend (£)	Total attributable spend (£)	Local attributable spend (£)
Holiday Makers	117.21	57.72	0.20	6,162	722,318	355,687	320,118
Day-trippers	4.41	2.85	0.67	20,728	91,359	59,090	53,181
Local	0	0	0.13	4,108	0	0	0
<b>Total</b>			<b>1.00</b>	<b>30,999</b>	<b>813,677</b>	<b>414,777</b>	<b>373,299</b>

- Total spend by visitors to the reserve was around **£810,000**.
- Total spend attributable directly to the reserve was around **£410,000**.
- Local spend attributable directly to the reserve was around **£370,000**.

Table 24: Economic impacts of local spend by visitors to Lakenheath Fen

Visitor Type	FTE Jobs supported by reserve	Income supported by reserve (£)
Holiday Makers	7.28	156,858
Day-trippers	1.21	26,059
Local	0.00	0
<b>Total</b>	<b>8.48</b>	<b>182,917</b>

- 8.48 FTE jobs supported in local area by tourism to the reserve.
- £182,917 of local income supported by visitor spend.

These figures show the important role Lakenheath Fen plays in attracting tourism to the local area, and supporting jobs within local communities.

## 7.5 Total Employment Impact

Combining the various economic impacts listed above, it was estimated that Lakenheath Fen reserve supported over **16 FTE Jobs in 2009**.

Table 25: Lakenheath Fen – estimated total employment impact in 2009

Economic impact	FTE Jobs supported
Direct employment	4.8
Spending by employees	0.53
Direct reserve expenditures	2.01
Grazing lets/agricultural tenants	0.33
<b>RSPB and farming activities total</b>	<b>7.67</b>
Visitor spending	8.48
<b>Total</b>	<b>16.15</b>

## 7.6 Conclusion

Lakenheath Fen is a valuable source of income for the local economy, attracting an estimated £370,000 of visitor spend each year. The impacts of these visitors have been significantly bolstered by the £710,000 investment into a visitor centre, which also lead to a direct injection of funds into the economy during the years of its construction. This is an important example of how investment on-site at RSPB reserves can have both immediate and ongoing impacts within the local economy.

The reserve further builds on these benefits by sourcing local suppliers for ongoing maintenance work, and hosts some agricultural leases, contributing to other business incomes in the area, and consolidating the variety of impacts that are had within the local economy. In total the reserve supports almost 16 FTE jobs locally, as well as providing numerous benefits to those who visit.

## 8 Minsmere

### 8.1 The Reserve

Set within the stunning landscape of the Suffolk Coast and Heaths Area of Outstanding Natural Beauty, Minsmere is the RSPB's ark on the Suffolk coast: a place where rare species have recovered, common species thrive, and people and wildlife come face-to-face in a wild environment.

The reedbeds host scarce and elusive species such as bitterns, marsh harriers, bearded tits and otters. Spring and autumn sees many migrant birds passing through Minsmere's varied habitats, while on the coastal lagoons, known as the Scrape, colonies of avocets, gulls and terns nest.

Nightingales and warblers sing in spring. In summer look for the spectacular numbers of butterflies, dragonflies and flowers, or listen to nightjars at dusk on the surrounding heaths. The autumn red deer rut is a popular attraction, and winter brings huge flocks of ducks to the marshes, with starlings often roosting in the reedbeds.

Minsmere's visitor facilities include an RSPB shop, tearoom, toilets, eight birdwatching hides and three miles of nature trails. A major upgrade of facilities has been planned for Easter 2012, following which there will be a new classroom, outdoor family learning area and exciting new interpretation.

### 8.2 Historical Use

Minsmere was agricultural land with shooting interests before the RSPB signed a lease to manage Minsmere in 1947. In 1977 following an appeal to its members to raise the required (£240 000), the RSPB bought Minsmere from the previous landowners. Further extensions have added arable, heathland and forestry areas, which are now managed for their wildlife potential. Some of this management work is undertaken by local contractors, while local graziers provide some of the livestock used to graze the reserve's grasslands.

### 8.3 The Local Economy

Minsmere is located in Suffolk, where almost 300,000 of the 714,000 population in 2009 lived in rural areas, and approximately 86% of the county's parishes have a population smaller than 1,000.

In 2006, GVA per head was £16,297; regional and UK GVA per head was £17,890 and £19,430 respectively. Suffolk is home to a number of important businesses, including BT's research headquarters at Martlesham, EDF Energy at Sizewell and AXA insurance in Ipswich. The Port of Felixstowe is Britain's largest container terminal and supports a large number of haulage and distribution companies throughout the UK.

Median gross weekly earnings for Suffolk residents were £449.10 in 2008 compared to regional earnings of £498.70 and UK earnings of £478.60. There were 290,600 employees working in the county in 2007, of which approximately 15% worked in Suffolk Coastal, the district within which Minsmere is located. This district boasts the second highest number of employees only after Ipswich. Additionally, of the 25,290 VAT registered businesses in Suffolk at the end of 2007, Suffolk Coast boasted the highest number in the county.

Distribution, hotels and restaurants employ approximately 70,000 employees in the county, which is the second highest sector after public administration, education and health.<sup>54</sup>

## 8.4 Minsmere and the Local Economy

### 8.4.1 Direct Employment

In 2009, Minsmere employed 15 full time and 19 part time staff, including managers, wardens, a marketing and publicity officer, visitor centre assistants, field teachers, cleaners and a volunteer development officer. Field teachers at the reserve work purely on an ad-hoc basis and such work varies largely seasonally. In total, these employment figures are equivalent to **23.4 FTE jobs** not inclusive of the ad-hoc field teacher hours.

The reserve used 104 active volunteers in 2009 and accrued a total of 1,584 volunteer working days (these hours were spread among the 3 areas of *conservation*, *people engagement*, and *general* (admin, etc)).

### 8.4.2 Spending by Employees

Assuming that each RSPB reserve employee gives rise to a further 0.1 FTE jobs in local economies, the 23.4 FTE staff working at Minsmere in 2009 supported approximately **2.34 additional local FTE jobs**.

<sup>54</sup> Insight East, 2009, *Suffolk Economic Profile*, for the East of England Development Agency.

Assuming volunteers spend £7 a day whilst working, and that a total of 104 volunteers completed 1,584 working days in 2009, then volunteers spent a total of £11,088 locally, supporting **0.25 FTE jobs in the region**.

### 8.4.3 Direct Reserve Expenditures

Expenditure by the RSPB in managing the reserve totalled £5,112,713 between 2004/5 and 2008/9. Excluding staff costs, expenditure totalled £3,123,937 over this period, an average of £624,787 a year.

The largest expenditures were on the costs of retail and catering. However, other large costs included subcontract projects (ecological projects, infrastructure projects and visitor-related projects), building maintenance, transport and equipment, land maintenance, and travel and subsistence.

Using multipliers derived from the Scottish input: output tables, it is estimated that this expenditure supports **income of £239,895 and 9.93 FTE jobs locally**, taking account of direct, indirect and induced effects.

In 2008/9, the reserve spent £274,258 on contracts in Suffolk. The works included building maintenance, retail stock deliveries, conservation contractors and suppliers, advertising, catering expenditure and other sundry overheads.

The amount of money spent outside of Suffolk but within East Anglia amounted to £61,347, and contracts further afield within the UK amounted to £129,263.

### 8.4.4 Other Land Use on the Reserve

In 2009 the reserve had 4 grazing tenants on grassland amounting to 170.17 hectares, broken down as 20.43, 16.47, 5.96, and 127.31 hectare plots. Using average stocking rates for livestock on RSPB lets, along with the latest industry data on labour requirements per unit of livestock, it is estimated that these lets directly support 0.65 FTE jobs. This creates a further 0.31 jobs in the wider economy through indirect and induced effects. Therefore a total of **0.96 FTE jobs** are supported by these agricultural lets at Minsmere.

Between 2007/8 and 2008/9, Minsmere also gained income of £38,005 from the sale of timber.



### 8.4.5 Visitor Spending

Minsmere had 80,271 visitors in 2009. From April 2009 to March 2010, a sample of 245 visitors was surveyed to gain estimates of the economic impacts their visits had on the local economy. The main results of the surveys are shown below:

- Around 41% of all respondents said that Minsmere reserve was the main reason in them visiting the area.
- 85% said that Minsmere was one or the main reason for visiting the area.
- 42% of visitors were holiday makers, 37% day-trippers, and 21% lived locally to the reserve.
- Holiday makers spent on average 5.1 nights local to the reserve.
- Day-trippers spent £13.92 per person per trip in the local area, whilst holiday makers spent £231.34.

The tables below show results from the visitor surveys on visitor spend, and show the calculations of total visitor spend, attributable visitor spend, and the economic impacts associated with this spend.

**Table 26: Annual local spend by visitors to Minsmere reserve**

Visitor Type	Spend per head (£)	Attributable spend per head (£)	Proportion of visitors	Annual visitor numbers	Total spend (£)	Total attributable spend (£)	Local attributable spend (£)
Holiday Makers	231.34	90.47	0.42	33,419	7,731,006	3,023,512	2,721,161
Day-trippers	13.92	6.88	0.37	29,487	410,333	202,753	182,478
Local	0	0	0.21	17,365	0	0	0
<b>Total</b>			<b>1.00</b>	<b>80,271</b>	<b>8,141,339</b>	<b>3,226,265</b>	<b>2,903,638</b>

- Total spend by visitors to the reserve was around **£8.1 million**.
- Total spend attributable directly to the reserve was around **£3.2 million**.
- Local spend attributable directly to the reserve was around **£2.9 million**.

Table 27: Economic impacts of local spend by visitors to Minsmere

Visitor Type	FTE Jobs supported by reserve	Income supported by reserve (£)
Holiday Makers	61.84	1,333,369
Day-trippers	4.15	89,414
Local	0.00	0
<b>Total</b>	<b>65.99</b>	<b>1,422,783</b>

- 65.99 FTE jobs supported in local area by tourism to the reserve.
- £1,422,783 of local income supported by visitor spend.

## 8.5 Total Employment Impact

Combining the various economic impacts listed above, it was estimated that Minsmere reserve supported around 103 FTE jobs in 2009.

Table 28: Minsmere – estimated total employment impact in 2009

Economic impact	FTE Jobs supported
Direct employment	23.4
Spending by employees	2.59
Direct reserve expenditures	9.93
Grazing lets/agricultural tenants	0.96
<b>RSPB and farming activities total</b>	<b>36.88</b>
Visitor spending	65.99
<b>Total</b>	<b>102.87</b>

## 8.6 Comparison with 2002

Minsmere, alone amongst the case studies in this report, was also one of the reserves studied in the initial “RSPB and Local Economies” report performed by Shiel et. al. in 2002. It is therefore possible to perform a comparison of the results for this reserve over the 7 year period, to examine how the economic impacts had by this flagship reserve have changed. Table 29 below compares the results from the two studies.

All categories have experienced significant increases over this period, aside from jobs supported by grazing lets, which, as is discussed in more detail in section 15.1, have fallen due mostly to changes in the methodology used to estimate this type of impact.

Table 29: Comparison of the local FTE jobs supported by Minsmere over time

Type of impact	2002	2009	Change
Direct employment	17	23.4	+38%
Spending by employees	1.7	2.59	+52%
Direct reserve expenditures	4.3	9.93	+131%
Grazing lets/agricultural tenants	3.3	0.96	-71%
<b>RSPB and farming activities total</b>	<b>26.3</b>	<b>36.88</b>	<b>+40%</b>
Visitor spending	32.1	65.99	+106%
<b>Total</b>	<b>58.4</b>	<b>102.87</b>	<b>+76%</b>

Visitor spending, as has been seen across the UK for tourism related to RSPB reserves and the natural environment in general, has seen substantial nominal and proportionate increases, with local jobs supported more than doubling since 2002.

The employment supported by the reserve have increased 76% over the 7 year period between 2002 and 2009, illustrating that Minsmere is an excellent example of the increasing economic benefits delivered by the RSPB's conservation work.

## 8.7 Conclusion

Minsmere is one of the RSPB's flagship nature reserves, not only because of the importance the site has in preserving priority species and habitats, but because of the huge and diverse range of benefits the reserve provides to the surrounding communities. Overall, the reserve supported over 100 jobs in local communities in 2009, an increase of 76% since 2002.

The reserve offers significant direct links with the local population, with plentiful direct employment and volunteering opportunities, and maintenance and development also supporting numerous additional jobs locally. The major contribution that the reserve makes to the local economy however is through tourism attracted to the reserve. It is estimated that the 80,000 tourists that visit the reserve spend a staggering £8 million, of which around £3 million is local additional spend, supporting 66 FTE jobs in tourism related businesses, more than double the impacts had in 2002. This case study gives an idea of how important an established and popular nature reserve can be in terms of promoting local economic growth.

## 9 Mull of Galloway

### 9.1 The Reserve

The RSPB Mull of Galloway nature reserve sits on the most southerly point of Scotland, its sheer sea cliffs being home to thousands of birds including guillemots, razorbills and kittiwakes. Gannets are common, with some 2,000 pairs nesting on Scare Rocks nearby, and grey seals make their home on the offshore islands. Coastal grassland and remnant heath support twites and choughs. There are stunning views to the west of Solway Firth, the Irish Sea and the Isle of Man. There is a lighthouse, complete with a museum, and a privately owned café on the reserve to accommodate tourists.

The reserve is open all year round. The visitor facilities are open from Easter to the end of October, and are leased from a local charity; the South Rhins Community Development Trust (SRCDT). All donations made at the centre go straight to the SRCDT rather than the RSPB and as such contribute to the funding of local community development.

### 9.2 Historical Land Use

Before the RSPB began leasing the reserve in the early 1980's, the reserve was over-grazed coastal heath owned by the Northern Lighthouse Board (NLB). The Society still leases the land from the NLB.

### 9.3 The Local Economy

Mull of Galloway is located in Dumfries and Galloway, a primarily rural economy inclusive of forestry, tourism and food industries. It is home to 148,000 people and covers an area of almost 2,400 square miles.<sup>55</sup>

Much has since been done to try and diversify the local economy in order to make it more resilient to external shocks such as the Foot and Mouth Disease outbreak in 2001, which resulted in 6,500 job losses in the region.<sup>56</sup> This includes the creation of

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<sup>55</sup> South of Scotland Labour Market and Economic Intelligence, <http://www.southlmi.org/MiniWeb.aspx?id=132&menuid=2489&openid=2489>, visited 14 April 2011.

<sup>56</sup> South of Scotland Labour Market and Economic Intelligence, 2007, *Dumfries and Galloway Annual Report 2007*.

the *Making Tracks* scheme in August 2002, which received funding from the Scottish Executive. The scheme aimed to encourage groups of farmers and land-based businesses to work with mainstream tourism businesses to develop sustainable nature-based tourism facilities and services.

## 9.4 Mull of Galloway and the Local Economy

### 9.4.1 Direct Employment

In 2009, the Mull of Galloway employed 1 full time (Community Liaison Officer) and 1 part time (Information Officer) member of staff for 7 months of the year during peak season. In total, this was equivalent to **0.9 FTE jobs**.

The successful residential volunteer scheme at the reserve provided the equivalent of 37 weeks' cover in 2008/9 from 27 volunteers. As the reserve is open from March-September and this is when the residential volunteers are taken on, it must be stressed that this figure is thus not for the entire year. This volunteer cover allowed visitor centre staff to offer free weekly guided walks, on-site events (an Open Day, a Marine weekend, school visits) and outreach activities (talks at a local caravan park, liaising with neighbours).

### 9.4.2 Spending by Employees

Assuming that each RSPB reserve employee gives rise to a further 0.1 FTE jobs in local economies, the 0.9 FTE staff working at the Mull of Galloway in 2009 supported approximately **0.09 additional local FTE jobs**.

Assuming volunteers spend £7 a day whilst working, and considering that a total of 27 volunteers completed 37 weeks' work in 2008/9, equivalent to 185 days, then volunteers spent a total of £1,295 locally. This supported **0.03 FTE jobs in the region**.

### 9.4.3 Direct Reserve Expenditures

Expenditure by the RSPB in managing the reserve totalled £64,008 between 2004/5 and 2008/9. Excluding staff costs, expenditure totalled £15,129 over this period, an average of £3,026 a year.

Much of this expenditure was made on the regular outgoings of telephone, telex and fax charges and travel and subsistence costs, as well as one-off expenditures over the five-year period on transport and equipment costs and contracted projects.

Using multipliers derived from the Scottish input: output tables, it is estimated that this expenditure supported income of £1,501 **and 0.04 FTE jobs the local area in 2009**, taking account of direct, indirect and induced effects.

Though a large proportion of the reserve's expenditure has gone towards contractors, only one local contractor was used last year. This was an electrician to fix an item of machinery at £70 a time.

#### 9.4.4 Other Land Use on the Reserve

In 2009, the reserve let out 12 hectares of grassland, and there is also a contract with the Secretary of State for Defence regarding reflector units.

It is estimated that this agricultural let supported 0.05 FTE jobs directly, and a further 0.02 jobs in the wider economy through indirect and induced effects, contributing a total of **0.07 FTE jobs to the local economy in 2009**.

#### 9.4.5 Visitor Spending

Mull of Galloway had 20,609 visitors in 2009. From April 2009 to March 2010, a sample of 208 visitors was surveyed to gain estimates of the economic impacts their visits had on the local economy. The main results of the surveys are shown below:

- Around 7% of all respondents said that Mull of Galloway reserve was the main reason in them visiting the area.
- 71% said that the reserve was one or the main reason for visiting the area.
- 68% of visitors were holiday makers, 28% day-trippers, and 4% lived locally to the reserve.
- Holiday makers spent on average 5.6 nights local to the reserve.
- Day-trippers spent £12.72 per person per trip in the local area, whilst holiday makers spent £190.84.

The tables below show results from the visitor surveys on visitor spend, and show the calculations of total visitor spend, attributable visitor spend, and the economic impacts associated with this spend.

Table 30: Annual local spend by visitors to Mull of Galloway reserve

Visitor Type	Spend per head (£)	Attributable spend per head (£)	Proportion of visitors	Annual visitor numbers	Total spend (£)	Total attributable spend (£)	Local attributable spend (£)
Holiday Makers	190.84	41.96	0.68	14,070	2,685,111	590,343	531,309
Day-trippers	12.72	2.83	0.28	5,846	74,378	16,566	14,909
Local	0	0	0.04	694	0	0	0
<b>Total</b>			<b>1.00</b>	<b>20,609</b>	<b>2,759,488</b>	<b>606,909</b>	<b>546,218</b>

- Total spend by visitors to the reserve was around **£2.8 million**.
- Total spend attributable directly to the reserve was around **£610,000**.
- Local spend attributable directly to the reserve was around **£550,000**.

Table 31: Economic impacts of local spend by visitors to Mull of Galloway

Visitor Type	FTE Jobs supported by reserve	Income supported by reserve (£)
Holiday Makers	12.08	260,341
Day-trippers	0.34	7,306
Local	0.00	0
<b>Total</b>	<b>12.41</b>	<b>267,647</b>

- **12.41 FTE jobs** supported in local area by tourism to the reserve.
- **£267,647 of local income** supported by visitor spend.

These figures show the important role this reserve plays in attracting tourism to the local area, and supporting jobs within local communities.

## 9.5 Total Employment Impact

Combining the various economic impacts listed above, it was estimated that the Mull of Galloway reserve supported around **14 FTE jobs in 2009**.

Table 32: Mull of Galloway – estimated total employment impact in 2009

Economic impacts	FTE Jobs supported
Direct employment	0.9
Spending by employees	0.12
Direct reserve expenditures	0.04
Grazing lets/agricultural tenants	0.07
<b>RSPB and farming activities total</b>	<b>1.13</b>
Visitor spending	12.41
<b>Total</b>	<b>13.54</b>

## 9.6 Conclusion

Mull of Galloway is an excellent example of how nature reserves in remote rural areas can bring substantial economic benefits to the local community, supporting over 13 FTE jobs. Visitor spending accounted for almost all of the employment supported by the reserve, with 12.4 jobs supported in 2009, of which 3.3 were due specifically to seabirds.<sup>57</sup> The results of the surveys at the site suggesting that the 20,000 people who visited in 2009 spent a staggering £2.8 million, £550,000 of which was specifically down to the existence of the reserve. The vast majority of tourists, due to the remote nature of the reserve, were holiday makers, meaning that local accommodation providers in particular have received significant amounts of business from their proximity to the site.

<sup>57</sup> RSPB, 2010, *The Local Value of Seabirds: Estimating spending by visitors to RSPB coastal reserves and associated local economic impact attributable to seabirds*, The RSPB, Sandy, UK.



## 10 Rathlin Island

### 10.1 The Reserve

At just 7 square miles in size and with just over 100 inhabitants, Rathlin Island has an untamed and rare beauty. Visitor numbers to the reserve have increased largely since it opened in 1978, moving from 5,000 to 14,500 in the last ten years alone.

The reserve is the island's main employer, employing two full time employees and three seasonal employees. According to the reserves manager, if the reserve did not exist then those employed would not be able to find work anywhere else on the island.

In addition to the big impact the nature reserve has on the island's tourism and local employment, it also leases farmland bought from non-local people to local farmers, thus contributing further to local economic development.

### 10.2 Historical Use

In the late 18<sup>th</sup> century, kelp production became important with the island becoming a major centre for its production. The shoreline is still littered with kilns and storage places. This was a commercial enterprise sponsored by the landlords of the island and involved the whole community.

Rathlin Island has always shared a unique cultural history with its seabirds. Even into the twentieth century, seabird eggs were an important part of the economy and diet of island dwellers. They provided seasonal fresh foods and added to preserved foodstuffs for the winter. They were also traded with people on the mainland and as such provided a vital source of income.

### 10.3 The Local Economy

Rathlin Island is part of the Moyle District in Northern Ireland. Moyle District spent £800,000 on economic development under its Local Economic Development (LED) Strategy 2001-2007. Part of the research carried out in 2007 concluded that current strengths in Moyle's economy included; tourism (natural environment and gateway to the Coast line and glens), high levels of business creation and strong levels of interest in entrepreneurship. However, it also stated that certain weaknesses

included a lack of further education colleges, losing young people to neighbouring towns and cities, lack of business space, poor tourism infrastructure, lack of broadband infrastructure, lack of infrastructure projects, low income/low value jobs and rural performance. Tourism is the main industry in the Moyle District.<sup>58</sup>

## 10.4 Rathlin Island and the Local Economy

### 10.4.1 Direct Employment

In 2009 Rathlin Island employed 2 full time staff, and 1 full time and two part time members of staff between April and August. In total, this was equivalent to **2.8 FTE jobs**.

36 volunteers were employed at the Seabird Centre between 1<sup>st</sup> April-31<sup>st</sup> August 2009 as part of the residential volunteer scheme. They totalled 4,500 working hours.

### 10.4.2 Spending by Employees

Assuming that each RSPB reserve employee gives rise to a further 0.1 FTE jobs in local economies, the 2.8 FTE staff working at Rathlin Island supported approximately **0.28 additional local FTE jobs**.

Assuming volunteers spend £7 a day whilst working, and that a total of 36 volunteers completed 4,500 hours of work in 2009, equivalent to 600 days, then volunteers spent a total of £4,200 locally. This supported **0.1 FTE jobs in the region**.

### 10.4.3 Direct Reserve Expenditures

Expenditure by the RSPB in managing the reserve totalled £390,137 between 2004/5 and 2008/9. Excluding staff costs, expenditure totalled £137,072 over this period, an average of £27,414 a year.

Much of this expenditure was spent on subcontract projects (much of this on ecological projects), transport and equipment costs, and travel costs.

Using multipliers derived from the Scottish input: output tables, it is estimated that this expenditure supported income of £10,156 and **0.34 FTE jobs locally in 2009**, taking account of direct, indirect and induced effects.

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<sup>58</sup> Lestas consulting, 2008, *Economic Development and Tourism Strategy and Action Plan for Moyle District Council (2008--2013)*, Moyle District Council.

Much of the reserve's contract expenditure was on locally sourced labour and goods. Every year, and often twice a year, local contractors are used to round-bail the silage produced by the reserve. This is estimated to cost approximately £2,500 a year, which includes paying for the movement of the contractors' equipment onto the island. The majority of these bails are then sold to local farmers, whilst the rest are kept by the reserve. They are sold only at cost price, thus benefiting the local agricultural economy.

Every year a landscaper is drafted in to complete fencing contracts. In 2009 he arrived on the island in March, yet did not leave until September. This was because as local people learnt of his arrival, they too hired him for other jobs. He thus spent more money on the island on accommodation and other subsistence costs as a result of this. Additionally, he sourced all of his equipment locally, and paid the ferry and island haulage companies for their transport, further benefiting the local economy. The contract cost £27,000 this year, however, this was very much a one-off expenditure.

Other contractors are drafted in as and when necessary. A £5,000 contract was commissioned 2 years ago to cut gorse, although the person drafted in was non-local.

#### 10.4.4 Other Land Use on the Reserve

In 2009, the reserve had two livestock graziers using grassland amounting to 73.18 hectares (13.29 and 59.89 hectare lets). There is also a lease for the site of a single caravan. It is estimated that these lets directly supported 0.28 FTE jobs in local agriculture. This will have created a further 0.13 jobs in the wider economy through indirect and induced effects. Therefore a total of **0.41 FTE jobs** were supported by the agricultural lets on the reserve.

#### 10.4.5 Visitor Spending

Rathlin Isle received 14,479 visitors in 2009. As noted in the methodology section, a slightly different technique was used to estimate the economic impacts of visitor spending on Rathlin Island.

Between April 2008 and September 2009 visitor surveys were carried out on the Island, with 544 questionnaires completed, representing 2,315 visitors. These surveys gave information on the respondents' visitor type, party size, and motivation for visiting Rathlin. The main results of the surveys are shown below:

- 14% of all respondents said that on their trip they were mainly interested in birds; 56% said that whilst they were interested in birds, their main interest was in wildlife and nature as a whole; 27% said that they did not have an interest in nature or wildlife but enjoyed walking and/or other outdoor pursuits; Only 3% of respondents stated that they had no interest in any of these areas.
- 25% of respondents were holidaying on Rathlin, whilst 68% had come for a day-trip, and 7% lived locally.
- The average party size of visitors to the Island was 4.4.

Further information for tourists visiting Rathlin was estimated using national statistics from the latest UK Tourism Survey:

- Average spend by day-trippers was estimated at £20.44<sup>59</sup> and average spend per trip by holiday-makers visitors per night was taken to be £196.<sup>60</sup>

The tables below show results from the visitor surveys on visitor spend, and show the calculations of total visitor spend, attributable visitor spend, and the economic impacts associated with this spend. The findings were as follows:

**Table 33: Annual local spend by visitors to Rathlin Island reserve**

Visitor Type	Spend per head (£)	Attributable spend per head (£)	Proportion of visitors	Annual visitor numbers	Total spend (£)	Total attributable spend (£)	Local attributable spend (£)
Holiday Makers	196.00	55.10	0.25	3,687	722,571	203,133	182,820
Day-trippers	20.44	5.55	0.68	9,847	201,280	54,698	49,228
Local	0	0	0.07	946	0	0	0
<b>Total</b>			<b>1.00</b>	<b>14,479</b>	<b>923,851</b>	<b>257,832</b>	<b>232,048</b>

- Total spend by visitors to the reserve was around **£920,000**.
- Total spend attributable directly to the reserve was around **£260,000**.
- Local spend attributable directly to the reserve was around **£230,000**.

<sup>59</sup> Based on the average spend recorded from surveys in 2000, scaled up to 2009 prices, and including the average ferry crossing fares in 2009.

<sup>60</sup> Based upon Northern Ireland averages from the *UK Tourism Survey*, 2009, VisitBritain, VisitScotland, Visit Wales, and the Northern Irish Tourist Board.

Table 34: Economic impacts of local spend by visitors to Rathlin Island

Visitor Type	FTE Jobs supported by reserve	Income supported by reserve (£)
Holiday Makers	4.16	89,582
Day-trippers	1.12	24,122
Local	0.00	0
<b>Total</b>	<b>5.27</b>	<b>113,704</b>

- 5.27 FTE jobs supported in local area by tourism to the reserve.
- £113,704 of local income supported by visitor spend.

## 10.5 Total Employment Impact

Combining the various economic impacts listed above, it was estimated that the Rathlin reserve supported around **9 FTE jobs in 2009**.

Table 35: Rathlin Island reserve – estimated total employment impact in 2009

Economic impacts	FTE Jobs supported
Direct employment	2.8
Spending by employees	0.38
Direct reserve expenditures	0.34
Grazing lets/agricultural tenants	0.41
<b>RSPB and farming activities total</b>	<b>3.93</b>
Visitor spending	5.27
<b>Total</b>	<b>9.20</b>

## 10.6 Conclusion

Rathlin Island reserve plays an integral role in the local community, in terms of the social, cultural, and economic benefits it offers local people. As well as providing an iconic setting to view some of the UK's best seabird colonies, the reserve offers a diverse range of employment and volunteering opportunities. In 2009, the reserve brought £23,000 of visitor spend to the Island, supporting 5.3 FTE jobs in tourism related businesses, 3.3 of which were specifically due to the presence of seabirds.<sup>61</sup> This highlights the need to protect the waters used by these seabirds for feeding and

<sup>61</sup> RSPB, 2010, *The Local Value of Seabirds: Estimating spending by visitors to RSPB coastal reserves and associated local economic impact attributable to seabirds*, The RSPB, Sandy, UK.

other activities as Marine Protected Areas to ensure these benefits to the local economy are retained.

The Bonamargy and Rathlin Ward had 785 employees in 2009,<sup>62</sup> meaning that the reserve supported about 1.2% of employment in the Ward. Rathlin Island has a population of just over 100 people, meaning the FTE jobs supported by the reserve are equivalent to around 9% of the local population.

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<sup>62</sup> Northern Ireland Neighbourhood Information Service (NINIS), [http://www.ninis.nisra.gov.uk/mapxtreme/viewdata/Labour\\_Market/Census\\_of\\_Employment/Employee\\_Jobs/Employee\\_Jobs\\_2009.xls](http://www.ninis.nisra.gov.uk/mapxtreme/viewdata/Labour_Market/Census_of_Employment/Employee_Jobs/Employee_Jobs_2009.xls), visited 24 June 2011.

# 11 Saltholme

## 11.1 The Reserve

By the mouth of the River Tees between Stockton and Middlesbrough, Saltholme reserve is 1,000 acres of open space, part of which was once a derelict waste site. Since 2002, major-earth-moving work has buried and made safe an old industrial landfill site and transformed low-grade derelict grassland and ex-industrial brownfield land into silver flood meadows and bittern-friendly reedbeds, fit for marsh harriers, harvest mice, dragonflies and water voles.

420 pairs of Common Tern bred at Saltholme in 2007 as a result of the creation of two tern islands; the largest onshore colony in northern England. Wetting 45 hectares of grassland has improved things considerably for breeding Lapwing; 6 pairs in 2002 increased to 59 pairs in 2007.

Saltholme stands out amongst other similar wetlands sites due to the substantial investments that were made into its visitor facilities. Grant aid of £6.8 million is set to convert Saltholme into one of the most important visitor attractions in northeast England. This includes the `state of the art` eco-friendly visitor, education and community centre. The reserve also boasts an adventure play area, a walled wildlife garden designed by celebrity gardener Chris Beardshaw, and a cycleway. Indeed the success of these facilities has already been proved, with over 85,000 visitors recorded at the site in 2009.

## 11.2 Historical Use

Until the early 1980s the chemical company ICI, who used the land for a productive beef and sheep farm, owned Saltholme. There was a farmhouse and 6 farm cottages. This ceased in the early 1980s and the land was used for extensive cattle grazing under annual licenses, as it still is today. In real terms, the `ranching` of cattle on the site, from the early 1980s until it was developed as a reserve, probably equated to the employment of one part-time agricultural worker.

## 11.3 The Local Economy

Saltholme is located in the Tees Valley of the North East of England. The sub-region of Tees Valley and Durham was found to have a Gross Value Added (GVA) per head

of £14,383 (2008). This is well below the regional and UK averages for 2008 of £15,940 and £20,531 respectively.<sup>63</sup> Employment is also well below the national average, at around 65% in 2009.<sup>64</sup> The region has an established petrochemicals industry, and is looking to base future growth on low carbon energy and digital innovation.

## 11.4 Saltholme and the Local Economy

### 11.4.1 Direct Employment

In 2009, Saltholme's total staff hours amounted to 659.5 hours per week. Staff included a retail supervisor, café supervisors, retail and cafe assistants, a community officer, an education team, an administration officer, housekeepers, wardens, and a site manager. **This equated to 17.6 FTE jobs.**

The reserve's weekly volunteer hours amounted to 286.5 hours per week on average equivalent to a total of 1,986 volunteer working days in the year. Volunteers work as centre assistants, field teachers, wardens, hide guides and administrative staff on the site.

### 11.4.2 Spending by Employees

Assuming that each RSPB reserve employee gives rise to a further 0.1 FTE jobs in local economies, the 17.6 FTE staff working at Saltholme supported approximately **1.76 additional local FTE jobs.**

Assuming volunteers spend £7 a day whilst working, and given that volunteers completed 286.5 hours of work per week in 2009, equivalent to 1,986 days for the year, then volunteers spent a total of £13,902 locally. This supported **0.32 FTE jobs in the area.**

### 11.4.3 Direct Reserve Expenditures

Expenditure by the RSPB in managing the reserve totalled £7,325,136 between 2004/5 and 2008/9. Excluding staff costs, expenditure totalled £6,769,358 over this period, an average of £1,353,872 a year.

Much of this expenditure was spent on fixed assets such as buildings and the initial construction of the reserve. Whilst this expenditure is not truly reflective of the

<sup>63</sup> RSPB calculations and Office for National Statistics, 2010, *Briefing Note: Release of Regional and Sub Regional GVA Estimates: North of England.*

<sup>64</sup> Tees Valley Unlimited, 2011, *Tees Valley Economic Briefing: Issue 1.*



average ongoing annual expenditure of the reserve, it is worth recognising the contribution that the investment has made since construction began in 2002.

Using multipliers derived from the Scottish input: output tables, it is estimated that this expenditure supported income of £476,065 and **14.06 FTE jobs locally**, taking account of direct, indirect and induced effects.

**Table 36: Saltholme local contracts: Supply and services, December 2007-December 2009**

Type	Description	Approximate Value (£)
Main build contract	Main contractor and sub-contractors	5,200,000
Professional fees	Architects etc.	250,000
Print post and stationary	Local printer	2,000
Toilet services	Sanitation & materials	3,200
Cleaning services	Windows & Mats	750
Security	Patrols and locks	4,950
Work clothes	Staff and volunteers	3,000
Training providers	First Aid, 4WD etc	3,500
Agricultural contracts	Fencing, grassland, ditching	2,300
Agricultural supplies	Machinery and equipment	15,000
Signage	Local designer/provider	3,000
Catering supplies	Bowlams	3,000
	Local bakery	1,500
	Freshfair green grocers	10,000
	Caterer Friend	10,000
<b>Total</b>		<b>5,512,200</b>

Much of the reserve's contract expenditure was on locally sourced labour and goods (these figures have been included in the '*Direct Reserve Expenditures*' section). In total, between December 2007 and December 2009, Saltholme spent £5,512,200 on local contracts, the largest by far being the main build contract of £5,200,000 with Lumsden and Carroll.

#### 11.4.4 Other Land Use on the Reserve

In 2009 the reserve had 7 grazing tenants on grassland amounting to 195 hectares, with the vast majority of this land let to one tenant. Additionally, the reserve leases out a farm business tenancy agreement as a livestock farm, amounting to 110

hectares. Using average stocking rates for livestock on RSPB lets, along with the latest industry data on labour requirements per unit of livestock, it is estimated that these lets directly supported 1.16 FTE jobs. This created an estimated further 0.56 jobs in the wider economy through indirect and induced effects. Therefore a total of **1.72 FTE jobs** were supported by the agricultural lets at Saltholme.

#### 11.4.5 Visitor Spending

Saltholme had 85,775 visitors in 2009. From April 2009 to March 2010, a sample of 170 visitors was surveyed to gain estimates of the economic impacts their visits had on the local economy. The main results of the surveys are shown below:

- Around 39% of all respondents said that Saltholme reserve was the main reason in them visiting the area.
- 76% said that Saltholme was one or the main reason for visiting the area.
- 7% of visitors were holiday makers, 25% day-trippers, and 68% lived locally to the reserve.
- Holiday makers spent on average 3.4 nights local to the reserve.
- Day-trippers spent £7.47 per person per trip in the local area, whilst holiday makers spent £70.13.

The tables below show results from the visitor surveys on visitor spend, and show the calculations of total visitor spend, attributable visitor spend, and the economic impacts associated with this spend. The results were as follows:

**Table 37: Annual local spend by visitors to Saltholme reserve**

Visitor Type	Spend per head (£)	Attributable spend per head (£)	Proportion of visitors	Annual visitor numbers	Total spend (£)	Total attributable spend (£)	Local attributable spend (£)
Holiday Makers	70.13	14.34	0.07	6,055	424,586	86,847	78,162
Day-trippers	7.47	3.64	0.25	21,191	158,243	77,144	69,429
Local	0	0	0.68	58,529	0	0	0
<b>Total</b>			<b>1.00</b>	<b>85,775</b>	<b>582,830</b>	<b>163,991</b>	<b>147,592</b>

- Total spend by visitors to the reserve was around **£580,000**.
- Total spend attributable directly to the reserve was around **£160,000**.

- Local spend attributable directly to the reserve was around £150,000.

Table 38: Economic impacts of local spend by visitors to Saltholme

Visitor Type	FTE Jobs supported by reserve	Income supported by reserve (£)
Holiday Makers	1.78	38,300
Day-trippers	1.58	34,020
Local	0.00	0
<b>Total</b>	<b>3.35</b>	<b>72,320</b>

- 3.35 FTE jobs supported in local area by tourism to the reserve.
- £72,320 of local income supported by visitor spend.

## 11.5 Total Employment Impact

Combining the various economic impacts listed above, it was estimated that Saltholme reserve supported around 39 FTE jobs in 2009.

Table 39: Saltholme – estimated total employment impact in 2009

Economic impact	FTE Jobs supported
Direct employment	17.6
Spending by employees	2.08
Direct reserve expenditures	14.06
Grazing Lets/Agricultural Tenancies	1.72
<b>RSPB and farming activities total</b>	<b>35.46</b>
Visitor spending	3.35
<b>Total</b>	<b>38.81</b>

## 11.6 Saltholme, Wellbeing and the Economic Benefits

As noted previously, reserves deliver significant wellbeing, health and education benefits to those who visit. Saltholme is a particularly good example of this as, being as urban fringe reserve, it receives a large number of local visitors, for whom it is a cheap and easy way of engaging with the natural environment.

It is estimated that Saltholme reserve provides health and well-being benefits to the local community and economy of £14 million per year, £2.9 million of which are

direct cost savings to the NHS.<sup>65</sup> Additionally, it runs *Healthy Walks* and *Fit Family* events.

## 11.7 Saltholme's Education Programmes

Out-of-classroom learning is one of the most effective forms of education. It broadens children's outlooks, improves their motivation, nurtures their social skills, and creates gives them a 'sense of place' within their natural environment. It is also demonstrated to have a significant positive impact on children suffering from attention deficit hyperactivity disorder (ADHD).<sup>66</sup> Furthermore, introducing children to outdoor exercise is likely to result in them remaining active throughout their childhood and into adulthood thereby counter acting the worrying trend of increasing obesity and inactivity. Obesity has doubled in the last 25 years in the UK and it has been forecast that up to half of the UK adult population could be obese by 2050 resulting in a doubling of the NHS costs attributable to obesity to £10 billion and a total annual cost to society of £50 billion.<sup>67</sup>

Saltholme reserve is located in an excellent position to deliver out-of-classroom learning to children in and around Middlesbrough. In 2010, Saltholme delivered out-of-classroom learning to over 2,000 school children involving about 40 local schools. This is planned to grow to 5,000 children by 2013.

## 11.8 Links to the Local Community

Social capital is often associated with decreasing crime, inter-generational anxiety, xenophobia, and personal stress. Volunteering activity builds social capital, and Saltholme accrues on average 1,986 days a year of volunteer work.

Activities hosted at Saltholme reserve include:

- Wildlife Explorers group, which had 199 participants in 2009;
- Social Inclusion Groups, with 145 participants in 2009;
- Uniformed group events, such as events for Scouts groups, with 406 participants in 2009;
- Offsite library events held with families, attracting 292 participants in 2009;

<sup>65</sup> RSPB calculations based on potential green space values in Hartlepool in Bird, 2004, *Natural Fit*, for the RSPB.

<sup>66</sup> RSPB, 2004, *Naturally Fit*, RSPB, The Lodge, Sandy.

<sup>67</sup> Foresight, 2007, *Tackling Obesities: Future Choices – Project Report*, London: Government Office for Science, Department for Business, Innovation and Skills.

- University of the Third Age (u3a) and Rotary groups, gaining 405 participants in 2009;
- After-school clubs and work with an external family centre.

## 11.9 Conclusion

Saltholme reserve is a fantastic example of a multi-million pound investment that delivers benefits to both people and the environment. The local community are engaged via a number of means, such as volunteering, social inclusion groups, and after school clubs. Within only a few years of being established, Saltholme has almost as many visitors as some of the most popular reserves in the country.

As well as the many and varied social benefits offered by this site, its activities, and the tourists it attracts support almost 39 jobs in local communities. This illustrates the ways in which this social and environmental investment also bears tangible economic fruit for the local economy.

The economic impacts of visitors to Saltholme in the local area are lower than would be expected from a reserve with such high visitor numbers. This is due to the fact that Saltholme is an urban fringe reserve, meaning the majority of visitors are local day-trippers, with only 7% of people coming from elsewhere to holiday in the area. The reserve brings in a proportionately small amount of tourists from other regions, meaning the economic impacts of visitor spend as measured by this report are quite low. However, this methodology conservatively assumes that all spend by locals is non-additional, whereas in fact many of these visitors may have left the region and spent their money elsewhere in the absence of the reserve. Therefore the real impacts of the reserves on local tourism are likely to be far higher than estimated in this report. In addition, the number of visitors from outside the region is set to grow in forthcoming years through a greater emphasis on specialist group marketing, group travel developments and general awareness of the existence of this new facility.

Clearly, Saltholme provides the greatest benefits to local people, who have easier and cheaper access to the reserve. This is in keeping with the aim of urban reserves, which seek to engage a larger number of local people, and offer more ready experiences of the environment to those who have grown up with less exposure to wildlife and natural habitats. Although the benefits of this engagement do not manifest in measurable economic terms, they are of significant value to people and the local community.

## 12 South Stack

### 12.1 The Reserve

South Stack RSPB reserve is a popular tourist destination located 3 miles away from Holyhead. In the Spring and early Summer, more than 7,000 seabirds breed on South Stack's cliffs and visitors can admire them using binoculars and telescopes or catch all the action on our live TV images in Ellin's Tower. In addition to the seabirds, the area supports 11 breeding pairs of chough (2% of the UK population), and up to 40 wintering birds. The reserve's heathland is part of the largest area of maritime heath in North Wales, and besides chough, this important habitat supports the endemic plant spathulate fleawort, and the uncommon silver-studded blue butterfly, plus adders, common lizards and a range of other flora and fauna.

In April 2010, the RSPB took over ownership of the old South Stack Kitchen and a team of local contractors and RSPB staff did a wonderful job renovating the Cafe and gave it a fresh faced look. In January 2011, the Cafe was closed for further refurbishment works and the introduction of a shop. On 1st April 2011, the building was opened and rebranded the 'South Stack Visitor Centre' and receives approximately 3,000 visitors each week on average. Visitors can also visit the nearby South Stack Lighthouse (not RSPB) and tickets can be purchased from the shop in the Visitor Centre.

### 12.2 Historical Land Use

The RSPB have been managing the heathland area of the reserve since the mid 1970's. There is little known about the previous use that the land was put to.

The Holyhead Mountain section of the reserve was some of the poorest land on Anglesey and has quarry workings to the North and East. It is likely that the quarry workers used the heathland for extensive grazing of any livestock they had. There is a network of small walled enclosures between the reserve area and '(Holyhead) Mountain Village' which were used by the residents for cultivation/forage.

The Penrhosfeilw Common heathland area was once used by the Army as a firing range and is locally known as 'The Range'. It is a registered common with one common's rights owner. It is thought that this owner used to move their dairy cattle

onto The Range after milking - but this practice has not been undertaken for at least 25 years.

Ellins Tower Information centre (the visitor's centre) is a Grade II-listed castellated folly on the edge of the sea cliffs. It was built by Lord Stanley for his wife Ellin in 1868. The RSPB purchased Ellins Tower from the previous owners of South Stack Kitchen (a local restaurant) at which time it was derelict. The building was restored in the early 1980's by the RSPB and opened to the public.

The farmland area of the reserve is a relatively new undertaking which and provides foraging habitat for the breeding chough population. The RSPB purchased the first block - Pen Y Bonc - in 2002, and the second - Gors Goch- in 2004. Both holdings are let to a local grazier who has cattle grazing them year round.

### 12.3 The Local Economy

Anglesey's economy is currently underperforming compared to regional, national, and UK averages. Average Gross Value Added (GVA) per head is around 15% lower than in North Wales, around 20% lower than in Wales, and around 45% lower than in the UK. Gross weekly full-time earnings are likewise around 7% lower than the Welsh average and 20% below the UK average.<sup>68</sup>

In 2008, the main area of employment was distribution, transport and communication (31% of employment) and public administration, education and health (28% of employment). Agriculture, forestry, hunting and fishing account for 7% of employment.<sup>69</sup> In 2010, unemployment rates in Anglesey were 7.3%.<sup>70</sup>

Since 2007, Anglesey has benefited from the Convergence program, a European initiative aimed at promoting economic development. This shows that employment supported by the South Stack reserve, and tourism brought to the area, is likely to be extremely important to the community.

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<sup>68</sup> Welsh Assembly Government, 2011, *Statistical Bulletin: Regional Economic & Labour Market Profile – North Wales*.

<sup>69</sup> Ibid.

<sup>70</sup> Office for National Statistics, 2011, *Statistical Bulletin: Labour Market Statistics: Wales*.

## 12.4 South Stack and the Local Economy

### 12.4.1 Direct Employment

In 2009, South Stack employed 5 full time and 1 part time staff. The full time members included a site manager, people engagement officer, and 3 people engagement assistants. The 3 assistant roles are seasonal, being employed during the season's peak 6-month period. Working part time is an administrator. In total, these positions equated to **3.6 FTE jobs**.

The staff structure changed dramatically following the purchase of the privately owned South Stack Kitchen Cafe by the RSPB in April 2010. The existing buildings were transformed and the cafe rebranded as the South Stack Visitor Centre. Since this development, the reserve employs full time: a site manager, a retail manager, a retail assistant, a catering manager, 2 catering assistants, an assistant warden and a people engagement assistant. In addition there are now 3 seasonal people engagement staff from Easter to the end of September and a number of seasonal catering assistants. In total the direct employment at South Stack in 2010 was 12 FTE jobs. Although these figures will not be included in the economic impact calculations for South Stack, which will focus only on 2009, it is important to note the significant increase in employment supported which has been driven by RSPB investment on site.

The reserve has a projected annual figure of 2,300 volunteer hours for the end of 2009 (as of 16<sup>th</sup> December 2009), with volunteers accruing most of this time through people-engagement work. The residential voluntary wardening scheme was also very successful, boasting 1,650 hours of the total.

### 12.4.2 Spending by Employees

Assuming that each RSPB reserve employee gives rise to a further 0.1 FTE jobs in local economies, the 3.6 FTE staff working at South Stack supported approximately **0.36 additional local FTE jobs**.

Assuming volunteers spend £7 a day whilst working, and that volunteers complete 2,300 hours of work annually, equivalent to 307 days, then volunteers spend a total of £2,149 locally. This supported **0.05 FTE jobs in the region**.



### 12.4.3 Direct Reserve Expenditures

Expenditure by the RSPB in managing the reserve totalled £515,527 between 2004/5 and 2008/9. Excluding staff costs, expenditure totalled £195,734 over this period, an average of £39,147 a year.

Much of this expenditure was spent on subcontract projects (mainly on infrastructure projects and visitor projects), although a large portion also went to land maintenance.

Using multipliers derived from the Scottish input: output tables, it is estimated that this expenditure supported income of £13,885 and **0.4 FTE jobs locally**, taking account of direct, indirect and induced effects.

Subcontract projects are a large part of the South Stack budget. Between January and March 2008, local contracts included the internal remodelling of the information centre (costing between £25-30,000, contractor from Anglesey), the installation of a new CCTV system to provide high quality live images of the seabirds (£15,000, contractor from Gwynedd), the installation of a model cliff display (£3,000, contractor from Gwynedd), and a supply of new bird models (from a Welsh artist).

A further investment was undertaken by the reserve in 2010 with the purchase and remodelling of the coffee shop, which has involved £85,000 of expenditure. In addition, between 2009/10 and 2013/14, a partnership project (with others including the Isle of Anglesey County Council and the Anglesey Grazing Animals Partnership) involving grazing sheep on the SSSI heathland of Holyhead Mountain to move it towards a favourable condition will cost £22,500 over the five year period. These future expenditures are not included in the direct spend calculation for South Stack, which focuses on 2009; however they illustrate the ongoing and increasing investments being made on the reserve.

### 12.4.4 Other Land Use on the Reserve

In 2009, South Stack had one grazier tenant using 38 hectares of land year round for cattle. It is estimated that this let directly supported 0.14 FTE jobs and 0.7 indirect and induced jobs in the wider economy. A total of **0.21 FTE jobs** were therefore supported by this grazing let at South Stack.

### 12.4.5 Visitor Spending

South Stack Cliffs had 32,165 visitors in 2009. From April 2009 to March 2010, a sample of 175 visitors was surveyed to gain estimates of the economic impacts their visits had on the local economy. The main results of the surveys are shown below:

- Around 22% of all respondents said that the reserve was the main reason in them visiting the area.
- 74% said that South Stack was one or the main reason for visiting the area.
- 52% of visitors were holiday makers, 39% day-trippers, and 9% lived locally to the reserve.
- Holiday makers spent on average 6.7 nights local to the reserve.
- Day-trippers spent £13.61 per person per trip in the local area, whilst holiday makers spent £121.32.

The tables below show results from the visitor surveys on visitor spend, and show the calculations of total visitor spend, attributable visitor spend, and the economic impacts associated with this spend.

**Table 40: Annual local spend by visitors to South Stack reserve**

Visitor Type	Spend per head (£)	Attributable spend per head (£)	Proportion of visitors	Annual visitor numbers	Total spend (£)	Total attributable spend (£)	Local attributable spend (£)
Holiday Makers	121.32	34.66	0.52	16,726	2,029,246	579,785	521,806
Day-trippers	13.61	4.20	0.39	12,682	172,645	53,317	47,985
Local	0	0	0.09	2,757	0	0	0
<b>Total</b>			<b>1.00</b>	<b>32,165</b>	<b>2,201,892</b>	<b>633,102</b>	<b>569,791</b>

- Total spend by visitors to the reserve was around **£2.2 million**.
- Total spend attributable directly to the reserve was around **£630,000**.
- Local spend attributable directly to the reserve was around **£570,000**.

Table 41: Economic impacts of local spend by visitors to South Stack

Visitor Type	FTE Jobs supported by reserve	Income supported by reserve (£)
Holiday Makers	11.86	255,685
Day-trippers	1.09	23,513
Local	0.00	0
<b>Total</b>	<b>12.95</b>	<b>279,198</b>

- 12.95 FTE jobs supported in local area by tourism to the reserve.
- £279,198 of local income supported by visitor spend.

## 12.5 Total Employment Impact

Combining the various economic impacts listed above, it was estimated that South Stack reserve supported around **18 FTE jobs in 2009**.

Table 42: South Stack – estimated total employment impact in 2009

Economic impact	FTE Jobs supported
Direct employment	3.6
Spending by employees	0.41
Direct reserve expenditures	0.4
Grazing lets/agricultural tenants	0.21
<b>RSPB and farming activities total</b>	<b>4.63</b>
Visitor spending	12.91
<b>Total</b>	<b>17.53</b>

## 12.6 Conclusion

As a receiver of European funding for economic development, the Anglesey area is characterised by low levels of economic prosperity and employment opportunities. In this context the jobs supported by South Stack Cliffs in the area play an important role in the local community. The jobs are largely supported by tourism to the reserve, which led to the equivalent of 12.9 full-time jobs in related businesses in the area in 2009, of which 6.4 jobs were specifically related to seabird tourism.<sup>71</sup>

<sup>71</sup> RSPB, 2010, *The Local Value of Seabirds: Estimating spending by visitors to RSPB coastal reserves and associated local economic impact attributable to seabirds*, The RSPB, Sandy, UK.

## 13 Titchwell Marsh

### 13.1 The Reserve

Titchwell Marsh sits on the north coast of Norfolk and boasts populations of marsh harriers, bearded tits, avocets, bitterns, gulls and terns. In autumn and winter, visitors can see up to 20 species of wading birds as well as ducks and geese. The reserve is part of the North Norfolk Coast Area of Outstanding Natural Beauty.

In 2005, Titchwell's three-year project to rehabilitate the reedbed for bitterns proved successful when the first pair in 18 years bred on the reserve. The autumn of 2009 also saw the start of Titchwell's Coastal Change Project, designed to realign the sea defences over a small part of the reserve and protect precious freshwater habitats. The project cost an estimated £1.4 million, and received substantial funding from the EU LIFE+ Nature Fund, the Crown estates Marine Communities Fund, and two organisations that distribute landfill tax credits.

The reserve is always open and the shop, servery, feeding station, and visitor centre are open throughout the year (except Christmas Day and Boxing Day).

### 13.2 Historical Use

There has been a public right of way running through what is now Titchwell reserve for many years. Formally, the reserve had been farmland and a World War II tank firing range. The area of the reserve was very different to how it looks now and the various habitats and lagoons were installed after the RSPB purchased the land for £53,000 in 1973. Montagu's harriers, the UK's rarest breeding bird of prey, were seen breeding in the reed bed in 1970 and again in 1971 and 1972. This was the catalyst for the RSPB buying the land and developing it into one of the most popular nature reserves in the country.

### 13.3 The Local Economy

Titchwell Marsh reserve is located nearby King's Lynn, Norfolk. Norfolk is a largely rural area located in the north of the east England region, with approximately 90 miles of coastal area. Norfolk's total economic activity was measured at just under £14 billion Gross Value Added (GVA) in 2007. This gives a GVA per head of £16,570,

significantly below the average East of England and UK levels of £19,080 and £20,430 respectively.<sup>72</sup>

Average weekly pay for Norfolk residents in 2009 was £446.10, significantly lower than the regional average of £509.40 and national average of £496. However, unemployment levels are 5.3%, lower than the regional average of 5.8% and national average of 6.9%.<sup>73</sup>

There were 323,000 employees working in Norfolk in 2008, of which 50,300 were located in King's Lynn and West Norfolk. Projected future growth for the county is for a decrease in employment of 1.3% between 2008 and 2013, but for an overall increase of 3.6% by 2018. Norfolk also had 31,125 active enterprises at the end of 2008; King's Lynn and West Norfolk have the highest number in the region, at 5,035. Norfolk's distance to London and its low population density mean that its labour market is fairly self-contained. Data from the 2001 census shows that 91% of Norfolk's residents worked in Norfolk. A breakdown of employment by sector illustrates that distribution, hotels and restaurants employed approximately 87,000 people in 2008; the second highest employment sector after public administration, education and health.<sup>74</sup>

It is worth noting that the tourism industry is of great significance to the region. The East of England Development Agency estimated that 13.3% of all Norfolk's jobs were supported by the tourism sector in 2008. Data derived using the Cambridge Economic Impact Model indicates that Norfolk destinations attracted around 29.5 million trips, which were estimated to be worth around £2.5 billion to the Norfolk economy and support 47,000 tourism related jobs.<sup>75</sup> This illustrates the importance of attractions such as Titchwell Marsh nature reserve, which was visited by around 63,830 non-local tourists in 2009.

### 13.3.1 The Recession

In Norfolk the number of claimants of unemployment benefits had increased by 7,475 in the 12 months to May 2009. Norfolk's total number of claimants thus stood at 3.6% of the working age population – just above the regional rate, but below the national rate. It has been noted that possibly seasonal work may be preventing further rises.

<sup>72</sup> Insight East, 2010, *Economic Profile: Norfolk*, East of England Development agency.

<sup>73</sup> Norfolk Insight, 2010, *Local Economic Assessment*, Norfolk County Council.

<sup>74</sup> Insight East, 2010, *Economic Profile: Norfolk*, East of England Development agency.

<sup>75</sup> Norfolk Insight, 2010, *Local Economic Assessment*, Norfolk County Council.

## 13.4 Titchwell Marsh and the Local Economy

### 13.4.1 Direct Employment

In 2009 Titchwell Marsh employed 6 full time and 2 part time visitor centre staff. There were also 2 full time wardens, 1 full time visitor officer and 2 full time 6 month warden. This is equivalent to **11.9 FTE jobs**.

The reserve has one of the smallest salary budgets out of the UK RSPB reserves and yet is one of the most visited, thus is heavily reliant on volunteers. They use 23 volunteers per week at the visitor's centre, 'hide helper' volunteers daily, and 2 residential volunteers are taken on every 6 months. The hours worked by volunteers during 2009 were 5,880 hours in retail and visitor centre work and 1,650 in catering work.

### 13.4.2 Spending by Employees

Assuming that each RSPB reserve employee gives rise to a further 0.1 FTE jobs in local economies, the 15.4 FTE staff working at Titchwell Marsh in 2009 supported approximately **1.5 additional local FTE jobs**.

Assuming volunteers spend £7 a day whilst working, and that the total number of annual hours worked by volunteers is 7,530, equivalent to 1,004 days, then volunteers spent a total of £7,028 locally. This supported **0.16 FTE jobs in the region**.

### 13.4.3 Direct Reserve Expenditures

Expenditure by the RSPB in managing the reserve totalled £4,272,255 between 2004/5 and 2008/9. Excluding staff costs, expenditure totalled £3,155,488 over this period, an average of £631,098 a year.

Much of this expenditure was spent on building maintenance, travel costs, the costs of retail and catering, and transport and equipment costs. In 2008/9, a particularly large some was spent on new building work (£27,612).

Using multipliers derived from the Scottish input: output tables, it is estimated that this expenditure supported income of £245,708 and **10.97 FTE jobs locally in 2009**, taking account of direct, indirect and induced effects.

Much of the reserve's expenditure was on locally sourced labour and goods. The reserve employed a local builders' firm (R.G. Carter from King's Lynn) to refurbish

and add to their office facilities this year as well as help with hide work. The total cost of this work is approximately £80,000 over ten weeks. Additionally, a new hide and workshop was built this year, costing £35,000, by a local company called Custom Made Buildings based in Holt. Local companies are used to provide the reserve's catering products (bakers from Hunstanton, food products from Norwich) to the value of approximately £20,000 per year. A local plumber is used to maintain the public toilets and visitor centre, as are local electricians (£6,000 per year approximately). Finally, a local company called ARCO service the reserve machinery (brush cutters, chainsaws, etc)

Titchwell's Coastal Change Project, which started in August 2009 and will run for 3 months each year until 2011, has a total project cost of approximately £1.4million. The main contractors are Lancaster Earth Moving based in Newmarket.

#### 13.4.4 Visitor Spending

Titchwell Marsh had 74,222 visitors in 2009. From April 2009 to March 2010, a sample of 477 visitors was surveyed to gain estimates of the economic impacts their visits had on the local economy. The main results of the surveys are shown below:

- Around 55% of all respondents said that Titchwell Marsh was the main reason in them visiting the area.
- 92% said that the reserve was one or the main reason for visiting the area.
- 53% of visitors were holiday makers, 32% day-trippers, and 15% lived locally to the reserve.
- Holiday makers spent on average 4.9 nights local to the reserve.
- Day-trippers spent £17.17 per person per trip in the local area, whilst holiday makers spent £250.47.

The tables below show results from the visitor surveys on visitor spend, and show the calculations of total visitor spend, attributable visitor spend, and the economic impacts associated with this spend. Table 43 shows that:

- Total spend by visitors to the reserve was around **£10.4 million**.
- Total spend attributable directly to the reserve was around **£5.1 million**.
- Local spend attributable directly to the reserve was around **£4.6 million**.

Table 43: Annual local spend by visitors to Titchwell reserve

Visitor Type	Spend per head (£)	Attributable spend per head (£)	Proportion of visitors	Annual visitor numbers	Total spend (£)	Total attributable spend (£)	Local attributable spend (£)
Holiday Makers	250.47	122.27	0.53	39,678	9,938,073	4,851,658	4,366,492
Day-trippers	17.17	9.65	0.32	24,118	414,191	232,637	209,374
Local	0	0	0.15	10,425	0	0	0
<b>Total</b>			<b>1.00</b>	<b>74,222</b>	<b>10,352,264</b>	<b>5,084,295</b>	<b>4,575,865</b>

Table 44: Economic impacts of local spend by visitors to Titchwell

Visitor Type	FTE Jobs supported by reserve	Income supported by reserve (£)
Holiday Makers	99.24	2,139,581
Day-trippers	4.76	102,593
Local	0.00	0
<b>Total</b>	<b>104.00</b>	<b>2,242,174</b>

- 104 FTE jobs supported in local area by tourism to the reserve.
- £2,242,174 of local income supported by visitor spend.

### 13.5 Total Employment Impact

Combining the various economic impacts listed above, it was estimated that Titchwell Marsh reserve supported around **132 FTE jobs in 2009**.

Table 45: Titchwell Marsh – estimated total employment impact in 2009

Economic impact	FTE Jobs supported
Direct employment	15.4
Spending by employees	1.66
Direct reserve expenditures	10.97
<b>RSPB and farming activities total</b>	<b>28.03</b>
Visitor spending	104
<b>Total</b>	<b>132.03</b>



## 13.6 Conclusion

Titchwell is another flagship RSPB reserve which, predominantly through the tourism it attracts to the area, has a huge impact on the surrounding communities. Over 100 FTE jobs are supported locally by visitor spending alone. In addition, development on the reserve, including the maintenance and enhancement of visitor facilities and infrastructure, has supported greater impacts among local businesses than the level of direct employment on the reserve.

As part of the North Norfolk Area of Outstanding Natural Beauty, Titchwell Marsh is representative of the engagement people have been having with nature in recent years. It is important to note the contribution that tourism and recreation related to the natural environment continues to make to people's wellbeing and to the local economy through even the worst recession seen in decades.

## 14 Local economic impacts of the RSPB reserves network

This section uses analysis from the 10 individual reserves, along with aggregate RSPB data to make estimates of the economic impacts of all RSPB reserves across the UK in 2009. The economic impacts follow the same categorisation as detailed in section 3.1. Employment impacts are expressed in terms of rounded FTE estimates.

For analysis of direct employment, spend by employees, and grazing lets, these calculations use aggregate RSPB data, and for direct reserve expenditure and visitor spend calculations, aggregate data is applied to the findings from the reserve case studies.

### 14.1 Direct Employment

The RSPB reserves network currently provides employment for 670 paid staff across the UK. This is equivalent to 452 full time equivalent (FTE) jobs. The RSPB spent £8.5 million in 2009/10 in employing staff on reserves.

In addition to employment on reserves, there are 101 FTE jobs in RSPB regional offices and national headquarters concerned with the acquisition and management of reserves. The RSPB spent £2.62 million on regional staff associated with reserves in 2009/10.

This gives a total **553 FTE jobs** associated with direct employment at RSPB reserves across the UK.

### 14.2 Spend by Employees

Following the assumption stated in section 3.3 that spending by each RSPB reserve employee gives rise to a further 0.1 FTE jobs in local economies, it was estimated that the 452 FTE staff that work on RSPB reserves support approximately 45 additional local FTE jobs across the UK. The 101 FTE staff working on reserve acquisitions and management in regional offices and HQ will also support an estimated 10 FTE jobs in local economies, resulting in a total of 55 FTE jobs being supported by the local spending of all full time employees.

A total of 3,788 volunteers completed 270,538 hours of work on RSPB reserves in 2009/10, equivalent to 36,071 days. Assuming daily expenditure of £7, we estimate

that volunteers spend a total of £252,497 per year in the local economies around reserves. Assuming that £44,000 of volunteer spend contributes to 1 FTE job, this is estimated to support around 6 FTE jobs in local economies.

This gives a total of **61 FTE jobs** associated by employee and volunteer spend supported by UK reserves.

### 14.3 Direct Expenditure

RSPB reserves spent £7,850,223 in 2009/10 (excluding wages and capital expenditure on land acquisition), covering trading costs, establishment overheads, construction, and other fixed assets. To estimate how this spend will have impacted local economies, individual reserve data was used to estimate which economic sectors this money was spent in on average. As explained in section 3.4, 10 economic sectors were used to categorise reserve spend, and acquire economic multipliers for this spend.

Table 46 below shows where the £16.1 million of reserve expenditure at our 10 case study sites over the past 5 years was spent.

The proportions of spending by sector were applied to total RSPB reserve expenditure in 2009 to give an estimate of the economic impacts of this spend across the UK. To do this it is necessary to assume that on aggregate RSPB reserve spend follow a similar distribution across the categories, and to maintain the assumption that the Scottish Government industry multipliers can be applied to reserve expenditure across all UK reserves. Table 47 shows how the areas of spending by sector are combined with multiplier effects to estimate weighted employment and income effects of total spending by reserves.

Table 46: Expenditure by 10 RSPB reserves assessed by economic sector

Economic Sector	5 year spend associated with economic sector (£)										% of total spend	
	Arne	Bempton Cliffs	Frampton Marsh	Lakenheath Fen	Minsmere	Mull of Galloway	Rathlin Island	Saltholme	South Stack	Titchwell Marsh		Total
Gas distribution	11,993	14,151	5,892	27,059	51,340	0	575	7,127	14,295	28,476	160,908	1.0%
Construction	276,844	30,471	914,811	178,796	404,808	4,170	55,957	6,515,743	112,465	106,758	8,600,824	53.4%
Retail distribution	12,355	624,672	40,053	7,414	2,199,333	188	6,352	62,400	2,008	2,801,411	5,756,185	35.7%
Hotels, catering, pubs	9,898	30,455	2,781	1,620	22,447	989	28,834	11,833	8,025	5,091	121,973	0.8%
Air transport	562	0	0	720	1,251	0	134	0	92	207	2,966	0.0%
Transport services	181,026	33,645	117,482	42,488	257,307	6,465	31,651	14,615	38,283	85,606	808,568	5.0%
Postal services	0	0	0	0	0	0	0	0	0	0	0	0.0%
Telecoms	31,546	17,346	18,596	13,488	63,806	2,601	8,646	37,726	11,677	33,363	238,796	1.5%
Other business service	20,827	17,686	7,758	5,826	77,655	715	4,812	119,914	8,737	70,426	334,356	2.1%
Sanitary services	7,541	8,488	238	4,502	45,989	0	110	0	151	24,151	91,171	0.6%
<b>Total</b>	<b>552,590</b>	<b>776,914</b>	<b>1,107,612</b>	<b>281,913</b>	<b>3,123,937</b>	<b>15,129</b>	<b>137,072</b>	<b>6,769,358</b>	<b>195,734</b>	<b>3,155,488</b>	<b>16,115,747</b>	<b>100%</b>

Table 47: Estimating aggregate multiplier effects based on the proportion of spending

Economic Sector	Average	Employment effect (2009 prices)	Income effect
Gas distribution	1.0%	7.15	0.30
Construction	53.4%	14.57	0.50
Retail distribution	35.7%	26.00	0.56
Hotels, catering, pubs	0.8%	26.66	0.53
Air transport	0.0%	11.46	0.39
Transport services	5.0%	14.30	0.56
Postal services	0.0%	24.38	0.64
Telecoms	1.5%	10.46	0.57
Other business service	2.1%	24.10	0.58
Sanitary services	0.6%	14.88	0.57
<b>Weighted multipliers</b>		<b>18.80</b>	<b>0.53</b>

Therefore on average across RSPB reserves, we assume that £1 million spend supports 18.8 FTE jobs (so that **£53,202 of spend supported 1 FTE job**) and **income of £530,000**.<sup>76</sup>

Of the £7,850,223 spent on operations related to reserves in 2009, £1,885,022 was in Scotland, for which, following section 3.4, a 10% leakage rate will be assumed, as opposed to the 30% rate assumed elsewhere in the UK. Therefore after accounting for leakage, it is estimated that of this £7,850,223 spent in the UK in total, £5,872,160 remained locally within the economies in which the spending occurred. Using the above multiplier figures, this spend can be estimated to have supported **110.38 FTE jobs** and **£3,112,245 of income in local economies**.

These figures refer to the sum of the local impacts of individual reserves in surrounding communities, which is the primary concern of this report. However, ignoring any local leakage of this spend, and assuming that the total RSPB reserve expenditure remained within the UK, it is possible to estimate the total economic activity that this spending supported in the UK as a whole. In this case, the £7,850,223 supported an estimated 147.56 FTE jobs and £4,127,207 income in the UK

<sup>76</sup> As a further check, multipliers were estimated using the average of individual allocations of spend at the reserves, rather than the allocation of all spend. This secondary method roughly supported our primary method, finding an employment effect of 17.82 (so that £56,124 of spend supported 1 FTE job), and an income effect of 0.53.

economy in 2009. This figure is simply included for discussion, and will not impact upon the calculations of local impacts in this report.

## 14.4 Grazing lets

The latest figures for RSPB grazing leases show that 25,623 hectares of reserve land are let out across the UK. These grazing lets are worked by 287 different farmers, playing host to some 11,622 cattle and 14,500 sheep. Although these 287 jobs are supported to some extent by the lets, this does not give an accurate picture for the FTE jobs supported. For this, the average stocking rates and labour requirements for the livestock held was estimated.

In terms of the average stocking rates, it was assumed that sheep will be held at a rate roughly 8 times higher than cattle. This is supported by industry figures for grazing livestock units (LUs). Lowland ewes constitute 0.11 LUs, and upland ewes and rams 0.08 LUs per head, compared with bulls, heifers, beef cows and 'other cattle' which equate to between 0.65 and 0.8 LUs per head.<sup>77</sup> This means that based on the head count of livestock held on RSPB lets and the total number of hectares, it is estimated that 3,457 hectares are grazed by sheep and 22,166 hectares are grazed by cattle. This gives an average stocking rate of 0.52 for cattle and 4.19 for ewes, as can be seen in the table below.

The majority of cattle grazing herds on RSPB lets consist of suckler bred beef cows, which require 1.35 standard man days of labour per year (smds) on lowland farms, and 1.68 smds in uplands/hills. There are also some grass silage beef stocks, which require 1.9 smds, and finishing suckler bred stores, which require 1.1 smds on both upland and lowland farms.<sup>78</sup> Due to a lack of precise aggregate data on the type of livestock held on leased land, the estimate of 1.5 smds will be applied to all cattle held on these lets. For sheep, it is conservatively assumed that each unit of livestock requires 0.45 smds, the equivalent to upland ewes, and slightly less than the labour required for lowland ewes or rams.<sup>79</sup>

The following table shows how the FTEs supported by the average hectare (ha) of grazing was estimated.

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<sup>77</sup> Nix, 2010, *John Nix Farm Management Pocketbook: 41<sup>st</sup> edition 2011*, Agro business consultants Ltd.

<sup>78</sup> Ibid

<sup>79</sup> Ibid.

Table 48: Direct FTE jobs supported by grazing lets on reserves

Livestock type	Ha's grazed	No. units	Average stocking rate /ha	Labour required <sup>80</sup>	Labour required /ha	Labour required /ha inc. rough grazing <sup>81</sup>	FTEs supported /ha <sup>82</sup>	Total FTEs supported
Cattle	22,166	11,622	0.52	1.5	0.79	0.99	0.0033	72.89
Sheep	3,457	14,500	4.19	0.45	1.89	2.09	0.0070	24.05
<b>Total</b>	<b>25,625</b>							<b>96.94</b>

Based upon conservative estimates of stocking rates and the latest industry data on standard man days supported per head, it is calculated that RSPB grazing lets directly support 96.94 FTE jobs, of which 72.89 were supported by cattle grazing, and 24.05 by sheep grazing.

As noted in section 3.5, these grazing lets and agricultural tenancies have additional indirect economic impacts, as farmers and graziers purchase inputs from other businesses, and induced effects, as individuals spend money in local economies. Agriculture industry multipliers were taken into account to assess the indirect and induced effects of the direct impacts. Using a type II employment multiplier of 1.48, it is calculated that the 96.94 FTE jobs directly supported by reserve lets supports a further 46.53 FTE jobs through activity in the supply chain and the spending of incomes supported directly

We can therefore estimate that the 96.94 FTE farming jobs on RSPB reserves support an additional 46.53 FTE direct and induced jobs in the wider economy. Thus, in total it is estimated that **143.47 FTE jobs** are supported by the RSPB letting reserves for grazing and agricultural use.

## 14.5 Visitor spending

To estimate the total impacts across the UK of visitor spending, data from our surveys is used to evaluate individual visitor spend, and aggregate RSPB visitor data was used to scale this spending up. The methodology discussed in section 3.6 was used to estimate local economic impacts of spending, assuming that £44,000 of spend supports 1 FTE locally and £1 of visitor spend leads to 49p of local income.

<sup>80</sup> Measured by standard man days (smds).

<sup>81</sup> Following Nix 2010, this involves accounting for a further 0.2 extra smds/ha.

<sup>82</sup> Assuming 300 standard man days is equivalent to 1 FTE job.

The data reported in our visitor surveys across all sample reserves suggested that 38.5% of visitors were holiday makers (staying 4.9 nights on average), 38% were day-trippers, and 22.5% lived locally (with 1% of respondents not answering the question). As would be expected, this was distributed differently based on the characteristics of the reserves, for example a high proportion of visitors to Saltholme, and urban fringe reserve, were local (66%) whereas visitors to Mull of Galloway were predominantly holiday-makers (68%).

The table below shows average attributable spend per visitor at each reserve, broken down by type of visitor.

**Table 49: Average spend per visitor per trip by visitor type for each reserve**

Reserve	Day-tripper		Holiday maker	
	Total spend £	Attributable spend £	Total spend £	Attributable spend £
Arne	9.73	3.12	133	37.56
Bempton Cliffs	12.96	6.67	189.36	61.67
Frampton Marsh	6.4	3.8	108.5	41.63
Lakenheath Fen	4.41	2.85	117.21	57.72
Minsmere	13.92	6.88	231.34	90.47
Mull of Galloway	12.72	2.83	190.84	41.96
Rathlin Island	20.44	5.55	203.86	57.31
Saltholme	7.47	3.64	70.13	14.34
South Stack	13.61	4.2	121.32	34.66
Titchwell Marsh	17.17	9.65	250.47	122.27
<b>Average</b>	<b>11.88</b>	<b>4.92</b>	<b>161.60</b>	<b>55.96</b>

As shown in the table, day-trippers spent £11.88 on average, of which £4.92 (around 41%) is estimated to be attributable, and holiday makers spent £161.60, of which £55.96 (around 35%) is estimated to be attributable. The fact that a greater proportion of day-trippers spend can be attributed to the reserve is to be expected; the reserve visit is likely to take up a greater proportion of a visitors' trip if they are spending a smaller amount of time away, and is likely to therefore hold relatively greater importance to their motivation for coming to the area.

Holiday makers spent far greater amounts of money than day-trippers due to length of stay and particularly the inclusion of expenditure on accommodation. The extent to which it is true is perhaps slightly unexpected, with average attributable holiday



maker spend over 11 times higher than for day-trippers. This demonstrates the importance of medium to long term tourism, and the importance of the accommodation industry to the tourism sector.

The table below combines the figures for each visitor type, to estimate a weighted average of spend for an RSPB visitor:

**Table 50: Weighted total average spend per person per trip for each reserve**

Reserve	Average visitor spend	
	Total spend £	Attributable spend £
Arne	57.16	16.24
Bempton Cliffs	87.39	29.59
Frampton Marsh	24.39	9.92
Lakenheath Fen	26.40	13.45
Minsmere	102.31	40.54
Mull of Galloway	133.33	29.33
Rathlin Island	64.86	18.10
Saltholme	6.78	1.91
South Stack	68.39	19.66
Titchwell Marsh	138.24	67.89
<b>Average of reserve averages</b>	<b>70.93</b>	<b>24.66</b>

The average total spend per visitor per trip, based on the proportions of visitor types at each reserve, (taken as an average of the reserve averages, rather than an average of all individual responses across sites), was £70.93. Of this spend, £24.66 (around 35%) is estimated on average to be attributable to the reserve being visited.

To estimate the sum of the individual local impacts across the reserve network, we assumed that 10% of visitor spend on average did not occur within local economies. The assumed leakage is lower than that for direct reserve expenditure, as visitor spending on food, drink and accommodation are far more likely to occur in the local communities than spend on construction or reserve maintenance, which may require more specialised skills and operations to be brought into the area. Therefore average additional local spend per visitor per trip is estimated at £22.20. This figure can be applied to the total visits recorded to reserves in 2009 to get the total, local, additional spend across the UK.

### Box 5: Comparison of visitor spend estimates recorded at RSPB reserve with national averages

The UK Tourist found that in 2009 holiday makers within the UK spent on average **£174 per trip**.<sup>83</sup> This figure is comparable and slightly higher than the £161.60 estimated from our surveys, indicating that our estimates around total spending are conservative. In addition, the Scottish government in 2010 found that wildlife tourists in Scotland spend £276 million per year, on 1.12 million trips, implying an average spend of **£246.43 per person per trip** for both day-trippers and holiday makers.<sup>84</sup> These results again suggest that our figures are conservative estimates.

There are a number of difficulties involved in accurately measuring the total number of visits made to RSPB reserves. For some reserves, where there are car parks, visitor centres, or other established facilities operated by RSPB staff, relatively robust daily and weekly estimates can be obtained. However, many reserves have open access to the public, and due to low staffing capacity and rights of way legislation, water-tight or homogeneous means of estimating visitor numbers are not always possible. All of the RSPB reserves' annual reports, which detail the most accurate estimates for visitor numbers at individual reserves, were assessed to put together a picture of the total visitor numbers for the network. Where data was missing for a particular year within this data set, the previous years' figures for that reserve was used, making the assumption that there was no change over the year.

Based on annual reports from each RSPB reserve, the total number of visitors to the network across the UK in 2009 was estimated at around 1,993,000 (1,992,909). The following table gives the estimates for total visitor spending, and the resulting local economic impacts.

Table 51 illustrates that RSPB visitors spent over £141 million in the UK in 2009, of which over £44 million was additional to local areas.

**Therefore tourism attributable solely to RSPB sites supported 1,005 FTE jobs and over £21.5 million of local income in local communities across the UK.**

**Table 51: Local economic impacts of RSPB visitor spend across the UK in 2009**

<sup>83</sup> VisitBritain, 2010, *The UK Tourist: Statistics 2009*.

<sup>84</sup> International Centre for Tourism and Hospitality Research: Bournemouth University, 2010, *The Economic Impact of Wildlife Tourism in Scotland*, Scottish Government Social Research.

RSPB visitors	Visitor Spend	Attributable spend	FTEs supported	Income supported
1,993,000	£141,354,083	£44,239,745	1,005.45	£21,677,475

## 14.6 Total employment impact of reserves network

In total, it is clear that RSPB reserves have significant and diverse impacts upon local economic activity across the UK. The table below summarises the findings of the aggregation process for these impacts:

Table 52: Total local employment supported by RSPB reserves

Economic Impact	Local Employment (FTE)
Direct employment on reserves	452
Employment in regional offices/HQ concerned with reserve acquisition and management	101
Spending by employees	55
Spending by volunteers	6
<b>Total direct reserve expenditure</b>	<b>110</b>
Grazing lets/agricultural tenancies	97
Indirect employment from farming operations	46
<b>RSPB and farming activities on the reserve</b>	<b>867</b>
Spending by visitors	1,005
<b>Total</b>	<b>1,872</b>

It is estimated that in total RSPB reserves supported 1,872 FTE jobs in local communities across the UK in 2009.

## 14.7 Total expenditure brought to local areas by the reserve network

The amount of money brought to local economies by RSPB reserves was also estimated in terms of the 5 types of economic impact.

- Data from RSPB financial accounts was gathered illustrated that in 2009 over £11 million was spent on staff employed on reserves.
- Following the assumption made throughout this report that each full time staff member spent money supporting 0.1 FTE jobs locally, and that £44,000 of local spend supports 1 FTE job, a figure of £4,400 was used as the assumed annual

local spend by employees. This gave a figure of £2,433,200, which can be added to the £252,497 of total volunteer spend calculated in section 14.2 to give a total employee and volunteer spend of £2,685,697

- Regarding grazing lets and other land use on reserves, whilst some anecdotal data was available on spend and proceeds from reserve products, it was not possible to calculate what impact these activities will have had in terms of finances attracted to local economies. This section was therefore left blank in this analysis.
- Data on reserve expenditure was again taken from RSPB accounts, with the figure totalling £7,850 across the UK.
- Finally the figure for visitor spend attracted to local areas by the network was taken from the calculations in section 14.5 to give the final element of local expenditure brought about by reserves.

The table below shows a summary of this calculation:

**Table 53: Expenditure by Reserves, Volunteers and Employees**

Type of expenditure	Expenditure (£k)
<b>RSPB activities expenditure</b>	
Direct employment	11,120
Employee and volunteer spend	2,685
Reserve expenditure	7,850
Other land use (grazing lets)	0
<b>RSPB Spend Subtotal</b>	<b>21,655</b>
Visitor expenditure in local economies	44,240
<b>Total</b>	<b>65,895</b>

**In total, reserves are responsible for spending of around £66 million per year within local economies.**

As can be seen from these figures, the RSPB injected over £19 million into the areas surrounding reserves through staff wages and direct expenditure on maintenance and development. This funding, along the previous investment made to acquire the reserves, resulted in over £44 million being spent locally by visitors and volunteers who were attracted the local areas specifically by the reserves.

These figures represent a significant economic contribution made to local communities by the RSPB's conservation work, and illustrate the tangible return on investment in conservation activities.

## 15 Comparison with 2002 study

The 2002 study by Shiel et. al. examined the total economic impacts of the RSPB reserves network on local economies in 2002. Over the subsequent 7 years, the network has expanded significantly, with 30 new sites and 20,962 hectares of new land under management. Consequently it can be expected that the local economic impacts of reserves will have increased. The table below compares the employment supported in 2002 with 2009, illustrating the trends in the local economic impacts of reserves over this period.

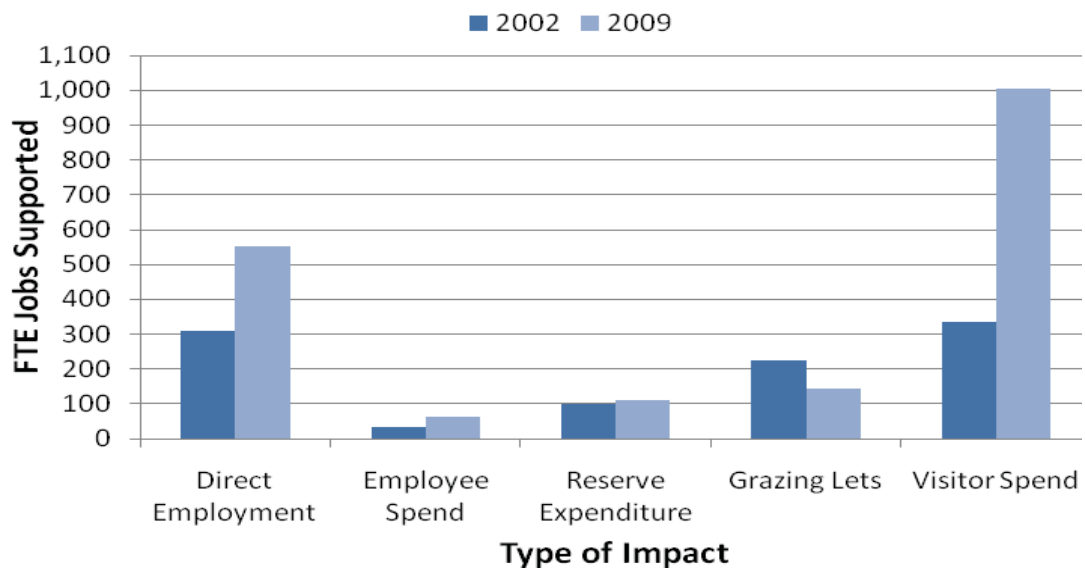
**Table 54: Comparison of total local employment estimated to be supported by reserves**

Economic impact	FTE Jobs supported			Expenditure supported (£m)		
	2002	2009	Change	2002 <sup>85</sup>	2009	Change
Direct employment	308	553	+80%	4.1	11.1	+171%
Employee spend	35	61	+74%	1.2	2.7	+125%
Reserve spend	101	110	+9%	2.7	7.9	+193%
Grazing lets	234	143	-39%	-	-	-
<b>RSPB and farming activities</b>	<b>678</b>	<b>867</b>	<b>+28%</b>	<b>8</b>	<b>21.7</b>	<b>+171%</b>
Visitor spend	335	1,005	+200%	11.7	44.2	+278%
<b>Total</b>	<b>1,003</b>	<b>1,872</b>	<b>+87%</b>	<b>19.7</b>	<b>65.9</b>	<b>+235%</b>

Between 2002 and 2009, there has been an 87% increase in the numbers of jobs supported by the RSPB reserve network, and a 235% increase in the amount of money being introduced to local economies by reserves. The most significant increase comes from visitor spending, with a 200% increase in the number of jobs supported, and a 278% increase in levels of spending. The figure below provides a graphical illustration of how the impacts have changed.

<sup>85</sup> For the 2002 expenditure calculations, the same methods were used as in section 12.7, but with the assumptions of this report replaced with those of the 2002 report, i.e. volunteers spend £6 per day, and £35,000 of spend is required to support 1 FTE job.

Figure 1: Jobs supported by each type of economic impact in 2002 and 2009



This graph also illustrates that visitor spend has increased in its dominance over other types of impacts. In fact, the proportion of the total jobs that were supported by this spending has increased from around 33% in 2002 to 54% in 2009.

### 15.1 Changes over time in each type of impact

**Direct Employment** has increased by 245 FTEs (80%). This was most likely due in part to the enlarged reserve network and expansion of the RSPB's conservation activities. The number of reserves increased by 17% in this period (from 176 to 206), and the number of hectares managed increased by 17.3% (from 121,082 to 142,044). However, the increase above and beyond the rate of reserve expansion illustrates that employment at reserves, and at regional offices, is becoming more dense. This may reflect the consolidation of conservation work at existing sites, or greater people engagement and field teaching on reserves.

RSPB volunteers on reserves have also more than doubled in number from 1,865 to 3,788. This illustrates a greatly increased source of employment experience for local people, which, despite being more difficult to measure in monetary terms, is extremely important, especially at a time when employment opportunities are relatively limited. **Spending by employees and volunteers** has consequently increased, with correspondingly larger impacts on local employment.

**Direct reserve expenditure** has had a relatively small increase in employment impacts since 2002. Despite nominal spending almost doubling, from £4 million to

£7.85 million in 2009, inflation effects along with a more conservative approach to estimating the employment multipliers<sup>86</sup> have meant only a 9% increase in the employment supported by this means. In reality, the developments made through this reserve expenditure over the period have facilitated increases in the other means of employment support, with hundreds more direct employees on our expanded reserves network, and hundreds of thousands more visitors attracted by more and better facilities.

**Other land use on reserves** is the only category in which the economic activity supported by the reserves network is estimated to have fallen. The methodology for calculating employment supported by grazing lets was adapted from the 2002 study, and now uses independent agricultural labour statistics around stocking rates and labour requirements. This more robust methodology is likely to be in part responsible for the reduction in estimates of total employment supported by grazing lets. However, industry estimates of the indirect and induced effects of one direct job in agriculture from the Scottish Government have also reduced significantly, from 1.215 to 0.48, lowering the estimates of jobs supported by non-direct means. The reduction stems mainly from far lower estimates of indirect effects, perhaps reflecting a reduction in demand for upstream farming inputs into pastoral agriculture during this period.

The FTE jobs directly supported per 1,000 hectares of the average grazing let is estimated to be 3.8 rather than the 7 estimated in 2002. Aside from the change in methodology and industry statistics, this may have been due to a reduction in the labour intensiveness of the lets, or the farming industry in general. Alternatively the worker numbers could be disguising an increase in the amount of work being done by those farmers.

Finally, local **spending by RSPB visitors** has seen a noteworthy expansion, as have the economic benefits associated with this tourism. Visitor numbers across the reserves network have increased by 90% in this period from 1.05 million (the figure for 2001 which was used in the 2002 report) to 1.993 million. Total visitor spending consequently increased from £11.7 million to £44 million. As a result of the increase in the popularity of reserves, and the amount of money being brought into local areas by tourists, the number of FTE jobs supported trebled, from 335 to 1,005.<sup>87</sup>

<sup>86</sup> A figure of £28,500 of reserve spend was expected to support 1 FTE job in 2002, equal to roughly £34,066 in 2009 prices. Had this figure been used in this report, the direct employment supported by this type of impact in 2009 would have been estimated at 172 rather than 110 FTE jobs.

<sup>87</sup> As with reserve expenditure, this involved using a more conservative employment effect estimate compared with 2002. The 2002 figure of £35,000 spend supporting 1 FTE job, £41,836 in 2009 prices, would have resulted in an estimated 1,057 rather than 1,005 FTE jobs being supported.

## 15.2 Summary of changes since 2002

The total number of FTE jobs supported by the reserves network has risen from 1,003 to 1,872, an increase of 87%. Spending brought to local areas by the network has more than trebled from just under £20 million to over £65 million. Whilst these increases will in part relate to the increase in the size of the network, it is clear that there are other factors influencing the increase in economic impacts. Visitor numbers have risen at a rate that correlates well with the change in total economic impacts (increasing by 90% and 87% respectively since 2002), illustrating both the increasing popularity of green tourism and visits to RSPB reserves, and the importance of green tourism in creating jobs through conservation.

The rate of increase in total economic impacts represents the facts that the network is delivering increasing marginal economic benefits to local areas. The 2002 report found that the RSPB's 121,082 hectares of reserves supported a minimum of 1,003 FTE jobs, an average of 8.3 FTE jobs in local areas per 1,000 hectare of conservation land. The 1,872 estimated jobs supported by 142,044 of conservation land in 2009 gives an average figure of 13.2 FTE jobs per 1,000 hectares. Therefore it seems that reserves are becoming more effective in terms of the levels of impacts they are having within local economies.

The results over time on RSPB reserves are therefore mirroring other UK studies in finding increasing participation in activities related to the natural environment, and a consequent growth in the importance of conservation to our economy.



## 16 Conclusions

The case studies in this report have examined the economic benefits of a variety of RSPB reserves, finding that each contributes significantly to the local economy in a number of ways. The table below summarises the main findings of these studies, looking at the 5 different types of local economic impact had by each reserve.

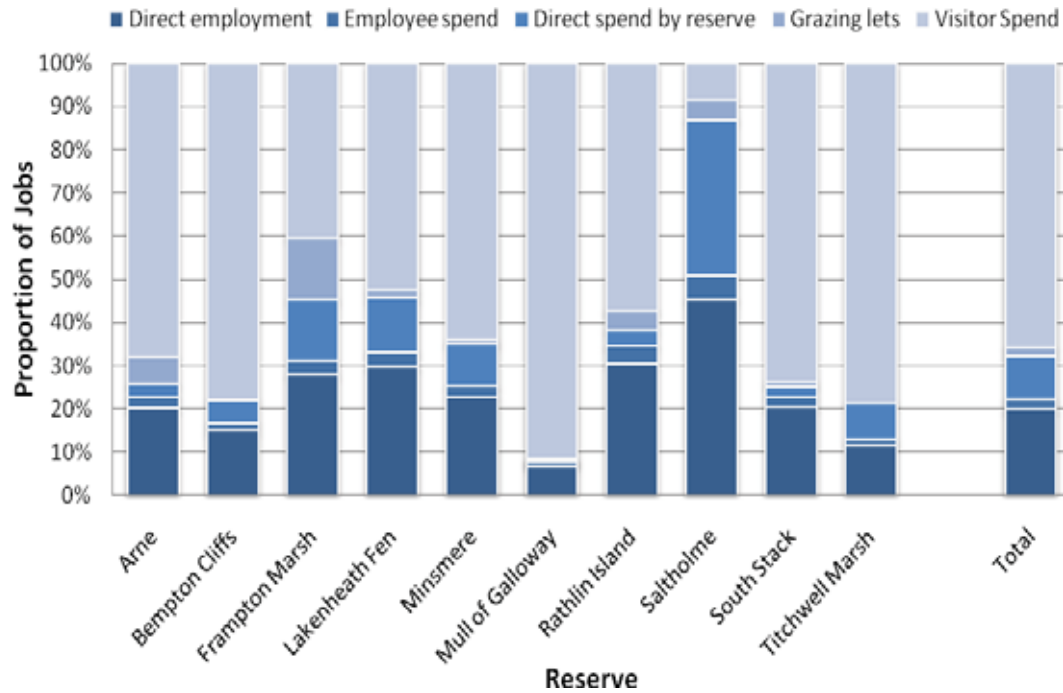
**Table 55: Summary of RSPB reserve case studies**

Reserve	Direct employment	Employee spend	Reserve expenditure	Grazing lets	Visitor spend	Total
Arne	7.5	1	1.15	2.21	25.54	37.40
Bempton	7.7	0.86	2.63	0	40	51.19
Frampton	4.5	0.47	2.32	2.31	6.51	16.11
Lakenheath	4.8	0.53	2.01	0.33	8.48	16.15
Minsmere	23.4	2.59	9.93	0.96	65.99	102.87
MoG	0.9	0.12	0.04	0.07	12.41	13.54
Rathlin	2.8	0.38	0.34	0.41	5.27	9.20
Saltholme	17.6	2.08	14.06	1.72	3.35	38.81
South Stack	3.6	0.41	0.40	0.21	12.91	17.53
Titchwell	15.4	1.66	10.97	0	104	132.03
<b>Total</b>	<b>88.2</b>	<b>10.1</b>	<b>43.9</b>	<b>8.2</b>	<b>284.5</b>	<b>434.83</b>
<b>% of total</b>	<b>20%</b>	<b>2%</b>	<b>10%</b>	<b>2%</b>	<b>65%</b>	<b>100%</b>

These 10 reserves supported around 435 FTE jobs in local communities across the UK in 2009. The most important economic impact that the samples as a whole had upon their local communities was the attraction of tourism to the area, with visitor spending accounting for around 285 FTE jobs, 66% of the total employment supported.

The figure below illustrates how employment was supported by the different impacts:

Figure 2: Proportion of total FTE jobs at each reserve supported by type of impact



It is clear from our case studies that the biggest reserves tend to have the greatest impacts, but particularly those which attract large numbers of external visitors such as **Minsmere** and **Titchwell**. Titchwell Marsh has the greatest economic contribution within surrounding communities, supporting an impressive 127 FTE jobs. This reserve is therefore useful as an example of what benefits an established and flourishing nature reserve can deliver to the surrounding area.

**Frampton Marsh** and **Lakenheath Fen** provide particular examples of the local economic returns from investing in conservation and nature reserves, both in the short-term and continuing into the future through boosted visitor numbers. Investment of £1 million into visitor facilities at these reserves in 2007 and 2008 is likely to have contributed to the combined increase of around 150% in visitor numbers between 2008 and 2009.

**Saltholme** provides a fantastic study of an urban reserve that provides cheap and easy access to the natural environment, and the benefits from engaging with nature, whilst also supporting significant levels of local employment. It is estimated that Saltholme brings health and well-being benefits of £13.8 million per year to the local community. Rather than actual income attracted to the area, this figure represents, for example, estimated savings to the NHS of £2.9 million from greater levels of physical activity. The roughly 39 FTE jobs that are supported by the reserve add a significant tangible economic element to these benefits, and those that are less easy to monetise, such as wellbeing benefits from engaging with nature.

**Mull of Galloway** and **Rathlin Isle**, the most remote and rural of the case studies, support 14 and 9 FTEs respectively in the surrounding areas. As can be seen from the figure above, the impacts of Mull of Galloway are greatly dependent on visitor spend, due to the size and remoteness of the reserve. For Rathlin, direct employment at the site also plays a significant role. These jobs will no doubt be of greater relative value to their local economies, within which there are likely to be fewer and less diverse employment opportunities compared with more built up areas.

In addition to these two reserves, **Bempton Cliffs** and **South Stack Cliffs** are excellent examples of coastal nature reserves that promote local growth, supporting roughly 51 and 18 FTE jobs respectively. These jobs are largely related to visitor spending, emphasising the popularity of tourism related to seabirds and other sealife. The economic impacts of these reserves help make the case for the timely and appropriate designation of Marine Protected Areas (MPAs) across the UK, helping to preserve the wildlife that makes these sites such great attractions.

The table below shows the estimates for total employment and expenditure supported in local areas by RSPB reserves.

**Table 56: Total local economic impacts of the RSPB reserve network across the UK in 2009.**

Economic impact	FTE Jobs supported	Expenditure supported (£m)
Direct employment	553	11.1
Employee spend	61	2.7
Reserve spend	110	7.9
Grazing lets	143	-
<b>RSPB and farming activities</b>	<b>867</b>	<b>21.7</b>
Visitor spend	1,005	44.2
<b>Total</b>	<b>1,872</b>	<b>65.9</b>

The impacts generated by reserves emphasise the crucial links between conservation work and economic activity in this sector, and the potential to make nature work for local economic growth. In addition to the delivering vast wellbeing benefits to people, the natural environment is also an appreciating asset in terms of the economic benefits its preservation can have within local communities.

These findings come at a time of severe concern for the state of nature in the UK, with conservation targets being missed, and a large proportion of ecosystem services experiencing declines. It is essential in this context that decision makers at all levels of government acknowledge the ways in which conservation delivers benefits to local areas in terms of natural services, communal wellbeing, and economic growth.

## 17 References

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## 18 Annex I: Literature Review of tourism multipliers across UK regions

### 1. Conservation works...for local economies in the UK (2001)<sup>88</sup>

In this report, a figure of £35,000 in 2000 prices for visitor spending that would support one local FTE job, based on a review of evidence on tourism multipliers in the UK. This figure was used in the previous RSPB and local economies report in 2002. Deflating this figure from 2000 to 2009 prices gives a figure of £45,332 spend required to support 1 FTE job in the UK.

### 2. The Economic Impact of Wildlife Tourism in Scotland (2010)<sup>89</sup>

This recent study reviewed included a review of previous economic impacts of tourism studies in Scotland, and directly reviewed tourism spend and employment supported by this spend across the country. The report estimated that for additional spend, £1 million supports 55.7 FTE jobs in Scotland, averaging at £17,953 per job. It also assumes that tourism impacts include the displacement of around 30% of visitor spending, i.e. it assumes tourism causes inflation in prices that leads to a subsequent reduction in local spending of 30%. Accounting for displacement would imply the impacts of spending would reduce by 30%, meaning **£25,647 spend in 2009 supported 1 FTE job in Scotland.**

### 3. Assessing the economic impacts of nature based tourism in Scotland (2010)<sup>90</sup>

This report involved literature reviews and market research analysis looking at the impact of tourism that was related to environment, including wildlife tourism along with numerous other outdoor activities. Based on the literature assessed, it was deemed that an aggregate figure of £35,000 of tourist spend related to nature based activities would support 1 FTE job at 2008 prices. **In 2009 prices this equates to £35,506 spend required for 1 FTE job in Scotland.**

### 4. The Economic Impact of Tourism: Norfolk (2009)<sup>91</sup>

<sup>88</sup> Rayment and Dickie, 2001, *Conservation works...for local economies in the UK*, RSPB.

<sup>89</sup> International Centre for Tourism and Hospitality Research: Bournemouth University, 2010, *The Economic Impact of Wildlife Tourism in Scotland*, Scottish Government Social Research.

<sup>90</sup> Bryden et. al., 2010, *Assessing the economic impacts of nature based tourism in Scotland*, Scottish Natural Heritage Commissioned report No. 398.

<sup>91</sup> East of England Tourism, 2009, *The Economic Impact of Tourism: Norfolk*, Norfolk County Council.

This report used the Cambridge Model, along with national and regional tourist data, to examine the volume and value of tourism in Norfolk, and the impact of expenditure on the local economy. It found that total visitor spending of £1,772,851,750 supported 37,177 FTE jobs in the region, implying that **£47,687 spend supports 1 FTE in the East of England.**

#### 5. The Economic Impact of Tourism: Portsmouth (2008)<sup>92</sup>

This report used the Cambridge Model along with national and regional tourist data to estimate the economic impacts of tourism in Portsmouth. It found that in 2008, a total of £375,569,000 spend by visitors supported 7,464 FTE jobs in the local area. Therefore in 2009 prices, **£51,044 spend supported one FTE jobs in South East England.**

#### 6. Tourism in the Northern Ireland economy: Volume 1 (2007)<sup>93</sup>

This report used tourism satellite accounts, national tourism data, and regional data, to calculate tourism activity in the Northern Irish economy. By assessing sales and employment in related industries, this study found a tourism employment effect multiplier of 28.7, so that £34,843 of tourism expenditure supported 1 FTE job domestically. In 2009 prices this figure equates to **£36,395.**

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<sup>92</sup> Tourism South East, 2008, *The Economic Impact of Tourism: Portsmouth.*

<sup>93</sup> Cogentsi, 2007, *Tourism in the Northern Ireland Economy: Volume 1*, Northern Ireland Tourist Board & DETI.





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