Dark Sky Park Report: Economic Impact and Potential

Report for Forestry Commission Scotland, Dumfries & Galloway Council, East Ayrshire Council and South Ayrshire Council

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Executive Summary

Introduction

This report provides an assessment of the current and potential future economic impact of the Dark Sky Park (DSP), and recommendations on future actions.

Current and Potential Future Economic Impact

The current and potential future economic impacts for the DSP are summarised in the tables below.

Table A: Economic Impacts

<table>
<thead>
<tr>
<th></th>
<th>Current</th>
<th>Net Growth</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of days/bed nights</td>
<td>8,886</td>
<td>6,010</td>
<td>14,897</td>
</tr>
<tr>
<td>Direct Expenditure</td>
<td>£363,443</td>
<td>£248,695</td>
<td>£612,138</td>
</tr>
<tr>
<td>Output</td>
<td>£512,455</td>
<td>£350,660</td>
<td>£863,115</td>
</tr>
</tbody>
</table>

Table B: Cumulative Output Over 10-year Period (Discounted)

<table>
<thead>
<tr>
<th></th>
<th>Output (Discounted)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Growth</td>
<td>£2,250,565</td>
</tr>
<tr>
<td>Total</td>
<td>£6,512,452</td>
</tr>
</tbody>
</table>

Contribution to Character and Tourism Attraction

The DSP has provided the local area with a USP with which to promote the tourism offer in the local area. Key aspects of this are that it predominantly attracts visitors in the quieter period of the year, and it complements both other aspects of the tourism offer in the area (e.g. wildlife and outdoor activities) and the Biosphere.

Other DSPs and Displacement

The issue is less about other areas with Dark Sky status and more on Galloway needing to develop new approaches if they wish to sustain and grow their existing market. Areas where development may have more of an impact on Galloway are elsewhere in Scotland near to the central belt or in the North West of England or if there was a proliferation of dark sky areas thus diluting the uniqueness.
Constraints and Opportunities

A lot has been achieved in the DSP, particularly through the activities of the FCS, aided by partners. However, there is a limit to how much can be achieved through this approach and there is a need to establish an overarching framework going forward. Recommendations for developing the DSP include:

**Recommendation 1:** DSP to sit within the wider Biosphere framework.

**Recommendation 2:** Secure funding to train DSP Communicators and pay for a development period to establish the DSP offer with local accommodation providers.

**Recommendation 3:** Promotional activity and materials to be focused on promoting events at the observatory and in the south of the park.

**Recommendation 4:** Raise awareness amongst businesses of the DSP and specifically what it has to offer – so they can help promote it. The focus of this should also be on the events, observatory and the role of DSP Communicators.

For further detail ([Constraints and Opportunities](#)).

Collaborative Actions

The offer within events has been developed to broaden the experience (e.g. talks linked to the visitor centres/accommodation providers, access to food & drink, astrophotography pictures) in order to mitigate against any potential disappointment if it is not a clear sky.

There is also an opportunity to develop activities with other product offers in the area e.g. wildlife watching, walking, etc. and events.

**Recommendation 5:** Develop multi activity packages and links with events.

For further detail ([Collaborative Actions](#)).

Widening the Geography

There is a possibility of widening the geography either in terms of a Dark Sky Reserve or referring to it as a ‘Region of Astronomy’.
However, tourists are often looking for focal points so broadening the geography would not necessarily make it more appealing to them.

**Recommendation 7: Focus efforts on the key sites.**

However, designation is not just about tourism but also environmental aims and designating a wider area will potentially lead to reduced light pollution, emissions and enhanced design schemes. It is about how the wider designation would be handled in terms of the tourism and environmental aims.

For further detail ([Widening the Geography](#)).

**Possible Funding Sources**

The Biosphere will be a key source of funding in taking the DSP forward, particularly in the training of ‘communicators’ and liaison with businesses. If some money can also be secured for promotional activities and materials (possibly from the future LEADER Programme or the Growth Fund) then in the short term this can help to grow the market. However, the aim would be to develop a self-sustaining model.

**Priorities**

The priorities are:

- the Observatory in the north of the park and Kirroughtree, Glentrool and Clatteringshaws in the south;
- events at these sites to engage the non-enthusiast market; and
- pump-priming activity (through the Biosphere and other potential funding sources) to train communicators and engage accommodation providers but with the aim of transferring the activity to an accommodation and observatory-led model.
1. Introduction

This report provides an assessment of the economic impact of the Galloway Forest Dark Sky Park and potential growth.

1.1 Background

In November 2009, Galloway Forest Park became the first UK and 5th World International Dark Sky Park (DSP). It attained the award at the Gold Tier level making it a unique location and major accolade for Scotland and the UK. It is now one of 11 such parks and six at gold tier level. A further five reserves and four communities have been established around the world (at the time of writing).

The designation of a Dark Sky Park is achieved by having outstanding night skies, control of lighting over the agreed area and the means to educate the public on the issues of light pollution and the wonders of space. There are a number of levels in terms of scale that can be designated. Due to the size and ownership of the forest area Galloway attained Park status which requires to be an area exceeding 300 square miles & be publically owned. A number of other areas in the UK have already been awarded and some are still seeking dark sky status.

In November 2012, D&G Council embarked on an ambitious £7.4m refitting of street lighting to more efficient and dark sky friendly light fittings. With this in mind it is hoped to allow the region to attain Dark Sky Reserve status on the back of this investment. Moffat is already looking at this for that location specifically. Alongside this the Main Issues report to Councils highlighted the GFDSP should be protected through the Local Development Plans. This process is being undertaken over the next 12 months ensuring that all three Councils that the GFDSP falls under, contain the same detail under the lighting guidance. Another area that has now become intrinsically linked is that of the now approved Galloway and Ayrshire Biosphere designation. However, the fundamental aspect of the GFDSP was to bring tourism in to the area in the shoulder months when traditionally tourism businesses saw this as their quietest period.
1.2 Objectives

The objectives of the study were to:

- identify the current scale, and overall impact of the DSP and a 10-year forecast;
- assessment of the contribution made by the DSP to the character and tourist attraction of the area;
- compare activity and output of other DSPs created since 2009 in the UK as well as aspirational dark sky places hoping to emerge in the next 5 years;
- consider the potential role and scale of possible funding sources to reinforce and maintain the region as the ‘Region of Astronomy’;
- identify key constraints and opportunities for growth and sustainable development;
- identify five key opportunities for the tourism business sector to innovate and to increase market orientation;
- identify opportunities for collaborative actions (for example use of technologies, diversification potential etc.);
- understand potential impact scenarios of displacement from other Dark Sky areas;
- identify regional priorities for targeting future subsidy and grant support; and
- provide recommendations and actions.

1.3 Report Structure

The report is structured as follows:

- **Chapter 2**: Events, Website and Media Coverage;
- **Chapter 3**: Consultations and other Dark Sky Park Locations;
- **Chapter 4**: Business Survey;
• **Chapter 5**: Economic Impact;

• **Chapter 6**: Possible Funding Sources; and

• **Chapter 7**: Conclusions and Recommendations.

Further detail on the other dark sky locations is also provided in **Appendix A**.
2. Events, Website and Media Coverage

2.1 Introduction

This Chapter considers the media coverage that the DSP has received, activity on the website and feedback from events.

2.2 PR and Media

The DSP has received media coverage in a number of different publications and formats. However, we are not undertaking an evaluation of the media coverage as part of this study. Rather we just wanted to give a feel for the type of coverage that has been received. This has included coverage in broadsheet newspapers such as The Guardian, The Scotsman, The Independent and The Times. There have also been articles in The Weekly News and Country Walking Magazine (both are UK wide publications). The DSP has also featured in the local Galloway News. It has also been widely mentioned across the world in the press and magazines, and on TV and radio.

The DSP has also achieved coverage online through articles published on BBC News, The Mail Online, Travel Scotland and Reuters News. There have also been articles published on many website and in particular ones dedicated to astronomy such as (www.astronomymagazines.co.uk), and various articles on online blogs such as pointblog.co.uk and orange online travel blog. The DSP was also featured on the NST website, which is a travel company dedicated to schools and colleges. FCS continue to keep awareness in key publications such as the Sky at Night and Focus magazines.

This provides a selection of the media coverage that the DSP has received and it is fair to say that in media terms it has ‘punched above its weight’. However, there is a recognition that to a certain extent this media coverage will be finite and that it has and will decline over time. Therefore, whilst it has been very useful in raising the profile of the DSP and the local area it cannot be relied on to continue carrying that message (or certainly this would be to a far lesser extent).
2.3 Dark Sky Park Webpage

Pages Viewed

Since September 2009 the Dark Sky Park website has had 231,595 page views – 175,496 of which have been unique.

There are three pages for which visitor information is available – the main page, an events page, and an information for businesses page. Table 2.1 provides a breakdown of the visits to each of these pages.

Table 2.1: Page views by category 6th Sep 2009 to 6th Oct 2013

<table>
<thead>
<tr>
<th>Type</th>
<th>Page Views</th>
<th>%</th>
<th>Unique Page Views</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Main DSP page</td>
<td>197,285</td>
<td>85%</td>
<td>147,009</td>
<td>84%</td>
</tr>
<tr>
<td>Events page</td>
<td>31,539</td>
<td>14%</td>
<td>26,336</td>
<td>15%</td>
</tr>
<tr>
<td>Information for businesses page</td>
<td>2,771</td>
<td>1%</td>
<td>2,151</td>
<td>1%</td>
</tr>
<tr>
<td>Total</td>
<td>231,595</td>
<td>100%</td>
<td>175,496</td>
<td>100%</td>
</tr>
</tbody>
</table>

The most frequently visited page on the website is the main page, with 84% of all page views on that particular page. Only a very small proportion of visitors to the website (1%) accessed the information for businesses page.

Figure 2.1, over, provides a monthly breakdown of total page views and unique page views to the site. There are four noticeable spikes in site activity, each occurring in the peak season months i.e. the period between Oct-Mar. It could also be said that the figures for August and September of 2013 – both in excess of 8,000 page views – represent a spike for this year.

The trend lines show that both the number of page views, and the number of unique page views are continuing to increase over time.
Figure 2.1: Monthly Page Views September 2009 – October 2013
Table 2.2, below presents the seasonal split of unique page views across the four years.

Table 2.2: Seasonal split of unique page-views

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>October to March</td>
<td>57%</td>
<td>53%</td>
<td>52%</td>
<td>54%</td>
</tr>
<tr>
<td>April to September</td>
<td>43%</td>
<td>47%</td>
<td>48%</td>
<td>46%</td>
</tr>
</tbody>
</table>

Whilst the winter months of the year – when events are typically held – attract more unique page views than the summer months, the seasonal split is not as pronounced as perhaps would be expected. This is encouraging in as much as it shows that interest in the DSP is maintained throughout the year, and is not just considered during the winter season but presents challenges in being able to meet the needs of those who are interested in engaging in the summer months.

2.4 Events

Table 2.3 provides a comparison between events in April 2010-March 2011 and April 2012-March 2013. This does not include events that have taken place at the Dark Sky Observatory which opened in 2012.

Table 2.2: Events

<table>
<thead>
<tr>
<th></th>
<th>Number of events</th>
<th>Number of attendees</th>
</tr>
</thead>
<tbody>
<tr>
<td>April 2010-March 2011</td>
<td>6</td>
<td>172-198</td>
</tr>
<tr>
<td>April 2012-March 2013</td>
<td>12</td>
<td>318</td>
</tr>
</tbody>
</table>

* Range because there may have been some crossover between three events that took place over one weekend but is not possible to determine the extent of this

There were double the number of events in the 2012-13 compared with 2010-11 and the number of attendees has increased by somewhere between 61-85%.

2.5 Event Feedback

Attendees at two recent events in the DSP were asked to complete a short survey providing details of their visit. A total of 16 responses were received. Whilst this is a small sample it is still useful to analyse their feedback.
Figure 2.2, below, outlines visitor origin.

Figure 2.2: Visitor origin

<table>
<thead>
<tr>
<th>Location</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dumfries and Galloway</td>
<td>44%</td>
</tr>
<tr>
<td>Elsewhere in Scotland</td>
<td>13%</td>
</tr>
<tr>
<td>Elsewhere in the UK</td>
<td>38%</td>
</tr>
<tr>
<td>Overseas</td>
<td>6%</td>
</tr>
</tbody>
</table>

N=15

There was a roughly even split between those from Dumfries and Galloway (47%) and those from outside the local area (53%). None of the visitors were from South or East Ayrshire.

Party size ranged from one to five people, with the average being 2.4. Children were present in a quarter of the groups. Half were staying away from home as part of their visit.

All respondents rated the event as very good/good, with the majority – 81% - rating it as very good.

Respondents were invited to suggest any improvements which could be made to future events. Responses, as cited by one respondent each, included:

- improve seating arrangements;
- increase the frequency of events;
- provide a more in-depth explanation behind the science involved; and
- provide the correct colour of film for covering torches.
Respondents were also invited to offer any additional comments on their visit. Comments included:

- their visit was enjoyable (four respondents);
- expressions of gratitude to those involved (three);
- will recommend this to others (one); and
- their visit was informative (one).
3. Consultations and Other Dark Sky Locations

3.1 Introduction

Consultations were undertaken with a range of different stakeholders and those with an interest in the development of the DSP, including:

- Destination D&G;
- Dumfries and Galloway Council;
- East Ayrshire Council;
- FCS;
- Galloway Astronomy Centre;
- Kielder Water and Forest Park Development Trust;
- Royal Astronomical Society Dark Skies Development Officer;
- Royal Observatory;
- Sark astronomy group SAstroS;
- Sark Dark Sky Island;
- SDSO;
- South Ayrshire Council;
- University of Glasgow;
- VisitScotland; and
- Wild Seasons.

This Chapter provides the key findings from these consultations.
3.2 Key Findings

Partnership Approach and Level of Engagement

To date, FCS has tended to lead the work on the DSP with the Local Authorities supporting the idea but not necessarily being involved in the day to day delivery. The exception to this is in the area of lighting where the Local Authorities have been involved in new developments and their lighting schemes and replacement street lighting that is being put in to ensure that it is compatible with the aims of the DSP.

VisitScotland has been a marketing partner with FCS. In 2012/13 they developed a guide and brochure, took adverts out in the broadsheets giving the key dates for meteor showers and hosted 5/6 familiarisation trips. The DSP also features on VisitScotland’s national and regional websites as a specific topic. The concern is that there was not the funding available this year to continue that activity so momentum may drop off.

Contribution to Wider Economic and Non-Economic Objectives

The DSP is a perfect fit for promoting the area in the off-season (Oct-Mar). There is no real displacement of activity as it does not take place at the peak time in the year, so accommodation providers have the spare capacity.

The new observatory is a fixed feature which provides a key focus for the DSP, however it is in an area that is in need of regeneration. East Ayrshire Council are trying to regenerate the area but it is very challenging because you need visitors to support the changes but you also need the changes to attract the visitors in the first place.

The DSP has a very strong natural fit with the Biosphere. They complement each other, particularly with an increasing focus on the environment and the natural world and the links into visitors attracted by these types of market. It also has a strong fit with wildlife watching which is a key tourism attractor for the area. Stronger links could be developed between the DSP and these markets to offer a natural world experience during the day and at night.

The DSP also links with the focus on sustainability and reduced carbon consumption. An approach to more environmentally friendly street lighting fits neatly with the need to maintain the level of darkness in and around the DSP.
Fit with Other Activities Underway

The development of the Biosphere is seen as offering the potential for a high level framework that would link to the local environment, wildlife, local food, GFP, the DSP, etc. The Biosphere will help to increase the area’s profile on the international map. The DSP has already done that to a certain extent and combining them will make this stronger.

A charitable organisation has been set up for the Biosphere which is still in its infancy. The local Authorities have pulled together funding for a three-year period to pump-prime the Biosphere. This will include Biosphere Officers – one of which will have a remit that will include developing the DSP.

Strengths, Weaknesses, Opportunities and Threats (SWOT) Analysis

The main strengths of the DSP were identified as:

- first DSP in Europe and only one in Scotland;
- only ‘Gold Tier’ DSP in the UK (at the time of writing);
- attracts visitors in the off-season;
- USP for the area;
- FCS has been a key driving force;
- the DSP in Galloway has been a leader in the Dark Sky movement in the UK and has become a catalyst for other Dark Sky sites to emerge and applications to be made;
- new lighting schemes has reduced emissions, saved the Council money, and improved the nocturnal ecosystem;
- DSP has ‘punched above its weight’ in media coverage terms;
- local pride in the designation;
- the new interpretation is very good;
- the Observatory is a good edition, with the kit it has on offer;
- FCS has identified areas for people to observe from; and
- some hotel package deals have been developed.
The key weaknesses are:

- not very tangible so people struggling to engage with it;
- lack of resources, there is too much reliance on a single person, there needs to be an organiser and body of volunteers locally to help co-ordinate the DSP;
- cloud cover is an issue. A way to address this is to combine a range of activities – talks, video footage and stills, perhaps an inflatable planetarium, then cloud cover less of an issue if overall experience is good;
- the observatory is an asset but only really accessible from the central belt for day visitors. It is too far from the tourist ‘hotspots’ of Galloway with the drive time being too long, particularly at night;
- a lack of tourism accommodation of any scale close to the observatory;
- many businesses close down over the winter period;
- the DSP is more geared up for local residents than tourists; and
- few opportunities in the summer to engage with the DSP, as too light and not dark until too late at night; and
- too many different organisations promoting tourist offer in Dumfries & Galloway – requires a more co-ordinated approach.

A number of opportunities have been identified:

- the DSP has a strong fit with the UNESCO Biosphere designation, nature tourism, outdoor activities and general image of the area amongst the wider market and tour operators and there is an opportunity to strengthen the links between the DSP and wider tourism offer in the local area;
- links should be strengthened between Wild Seasons and DSP events as there are similarities in the potential visitor profile;
- although the market will never be large there is still room for growth in those coming specifically for the DSP but also contributing to the range of things on offer, the breadth of which may encourage people to visit;
- there is an opportunity to grow the events with smaller events underpinning one or two large events each Spring and Autumn;
• meteor showers do offer some opportunity for engagement during the summer season e.g. August;

• need for greater understanding of DSP product through ‘ambassadors and communicators’. The communicators could also engage with local businesses;

• a toolkit should be developed covering where to get information, list of communicators, putting on an event, holding a stargazing weekend, programme of regional events, self-guided opportunities, guide to night sky, best viewing sites;

• create a gallery of astrophotography images taken from the DSP which could be used for marketing purposes and offered for sale;

• opportunity to link with Art in the Forest, understand that there is a sculpture planned which might help to engage with summer visitors and encourage a repeat visit to an event;

• opportunity to link with Kielder and Northumberland to create a Dark Sky Place - a 50 mile band of dark sky in Border Country; and

• opportunity for Star Gazing Live to be filmed from the park which would significantly boost the publicity and appeal of the park.

Some key threats were also identified:

• the possibility of other areas gaining Dark Sky status – notably Kielder (now in place since writing report);

• the lack of resources – both human and financial - so the momentum that has initially built up drops off; and

• the media coverage declining over time.

Future Involvement

The FCS has tended to lead the DSP delivery to date. Those that have provided a supporting role see themselves as continuing to do that in the future but would not be looking to take the lead. However, a possible option would be for the Biosphere organisation to take more of a role in the development of the DSP, particularly over the next three years when funding will be in place. This would require an exit
strategy over the three year period to ensure that the DSP is sustainable going forward.

3.3 Other Dark Sky Locations

The key findings from the other dark sky locations are (more detailed feedback is provided in Appendix A).

**Sark – Dark Sky Island**

- dark sky activity is very small scale;
- activity is operated with volunteer helpers;
- they have raised a small amount of funding;
- one hotel organises activities but four of the largest hotels on the island do not support the activity;
- most of the attendees are local people;
- tourists that engage with it tend to be on wildlife or outdoor type holidays; and
- some potential for growth but would require staff and funding.

**Brecon Beacons – Dark Sky Reserve**

- increased access to national and international journalists;
- embraced as a central marketing strand;
- boosted numbers in the shoulder and winter months;
- specific guidelines developed to help control light pollution and good engagement with local communities on this issue;
- their events attract 80-100 people and always sell out. They plan to increase the number of events;
- they operate an:
  - Ambassadors Programme
  - Education Programme;
- they plan to install a telescope at the main visitor centre; and
too many Dark Sky designated areas would reduce the novelty but if the quality is maintained then this would increase the public’s awareness and the lobbying power of the dark Sky movement.

Northumberland and Kielder Forest – Proposed UK’s Dark Sky Park

- Kielder observatory opened in 2008 and has attracted 30,000-40,000 visits (6,000-8,000 per annum) and there are plans to extend the Observatory as too small at peak periods;
- attracts out of season market;
- if successful will make it one of the largest Dark Sky Parks in Europe and the first in England;
- single voice promoting it and there is a development plan for the DSP;
- it has economic and environmental aims;
- likely to be in competition with Dumfries and Galloway but there may an opportunity for joint events;
- helps to reinforce the image of the area and the National Park status;
- supported by LEADER, ERDF and the Rural Development Fund England on a project by project basis;
- plan to train Dark Skies rangers and animators to work directly with accommodation providers and local businesses;
- Northumberland Uplands Local Action Group has set up a small fund to support organisations to make study visits, attend conferences or share lessons and ideas with other groups and businesses; and.
- some businesses already offering stargazing packages.
4. Business Survey

4.1 Introduction

This Chapter provides analysis of the findings from the business survey. Some of the information gathered has been used to assess the current economic impact of the DSP and is reported in Chapter 5.

4.2 Method

The usual approach to assessing the economic impact of tourism projects/activities is to survey the visitors. However, the DSP presented us with issues in this respect:

- there is not a particular focal point or points for visitors to the DSP, they could be at a number of different locations throughout the DSP area;
- even if it was possible to narrow the focus down to a reasonable number of locations, it would still be very difficult to attempt to interview people in a forest park area at night; and
- it is not the right time of year for many of the visitors, the main astronomy season is from October to March.

For these reasons we needed to adopt a different approach which involved interviewing local accommodation businesses instead.

Our approach involved a random sample of 120 accommodation businesses (the sample was stratified to reflect the different categories of accommodation provider). There was initially discussion over the boundary from within which these businesses should be selected. So it was agreed that a two stage approach would be adopted involving an initial sample of 50 from areas covering: Wigtonshire, Stewartry, Nithsdale, Rural South & East Ayrshire, Ayr and Gretna.

On the basis of the findings from this initial sample (including a lack of impact from some areas and other businesses considering that they were too distant from the DSP) we refined the boundary so that it now covered Stewartry, Wigtonshire (part
of), Nithsdale (part of) and Rural South & East Ayrshire (the boundary is shown in Figure 1).

**Figure 1: Boundary**

Some of the businesses interviewed within the first stage (25 in total) were from outwith this boundary so we made up these numbers in stage 2 so that the total random sample of businesses within the boundary was 120 (so 145 were interviewed on a random basis).

### 4.3 Random Sample Survey

#### 4.3.1 Awareness of the DSP

The businesses were asked if they were aware of the DSP. Of the 145 businesses interviewed 68% were aware of the DSP. If we consider those inside the boundary then 72% were aware of the DSP compared with 48% outside. This suggests a need to increase awareness amongst those from outside the defined boundary. However, it may be that some of these areas may be quite distant from the DSP i.e. parts of Wigtownshire, Annandale and Ayr so raising awareness amongst these
business may have little effect. However there are still a significant proportion within
the boundary that are still not aware of the DSP.

4.3.2 Impact on Business

The businesses were asked if the DSP had had any impact on their business. As
identified above none of those from outside the boundary had experienced an
impact. Of the 120 surveyed within the boundary 23 (19%) had experienced a
positive impact on their business.

4.3.3 Workshops

Those that had not had any impact from the DSP were asked if they would be
interested in attending a workshop that would tell them more about how they could
benefit from the DSP. Of 118 that responded, 44% said that they would be
interested in attending with 1% wishing to attend at an FCS Centre, 12% in their
local area and 31% said either.

4.4 Businesses with an Impact

Of the 120 businesses within the boundary which were surveyed a total of 23 had
experienced an impact. We also identified another five businesses that had an
impact and contacted them. This gave a total of 28 businesses with an impact that
were surveyed.

However, one of the businesses only gave us details of the type of business they
had and the impact that it had on their business and did not complete the full survey,
so the number completing the full survey was 27. This section provides analysis of
the survey of these 27 businesses.

Businesses were asked to identify which type of accommodation they provided
(Figure 3.1).
The businesses interviewed accounted for a total of 203 rooms, 2 self-catering units, and 479 caravan/tent pitches (including static). As there are a large number of self-catering units we did want to use a large number of our 120 telephone calls contacting them. So instead we developed a short email questionnaire that was sent to the self-catering providers (we kept it short as sending the full questionnaire would have been unlikely to illicit very many responses).

This short questionnaire generated a further 36 responses, which provided us with information that was used in calculating the economic impact (Chapter 5) but did not cover the other questions set out in this Chapter.

Businesses were asked to provide details relating to their levels of turnover (Table 3.1).

**Table 3.1: Turnover of Businesses**

<table>
<thead>
<tr>
<th>Turnover</th>
<th>Number of businesses</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Under £50,000</td>
<td>9</td>
<td>39%</td>
</tr>
<tr>
<td>£50,001-£100,000</td>
<td>5</td>
<td>22%</td>
</tr>
<tr>
<td>£100,001-£250,000</td>
<td>2</td>
<td>9%</td>
</tr>
<tr>
<td>£250,001-£500,000</td>
<td>2</td>
<td>9%</td>
</tr>
<tr>
<td>£750,001-£1m</td>
<td>4</td>
<td>17%</td>
</tr>
<tr>
<td>£1million+</td>
<td>1</td>
<td>4%</td>
</tr>
</tbody>
</table>
Over three-fifths (61%) of respondents had a turnover of less than £100,001, with 39% earning less than £50,000. Only one business had a turnover of more than £1 million.

### 4.5 Awareness of the role of the DSP and Customers

Just over one-third of businesses (35%) stated that they did not know anything about what is on offer to visitors to the DSP, despite receiving benefits from the DSP. Businesses who were aware of what was on offer to visitors provided a diverse range of responses, including:

- well versed on all that is on offer (28%);
- general/basic awareness (16%);
- know of events at the observatory (16%); and
- the DSP is a location for stargazing (8%).

Businesses were also asked to identify which demographics comprised customers who were interested in the DSP.

Again, responses to this were varied, with 50% of businesses stating that customers of various age ranges are interested, rather than interest being categorised to one particular age range – however, just under one-fifth of businesses (19%) felt that ‘older people’ were more interested.

The majority of businesses (70%) indicated that interest was shown by general tourists, with only 30% feeling that it was confined to astronomy enthusiasts. Whilst 26% felt that couples were more likely to be interested, and 13% stating that families had shown the most interest, the majority of businesses – 57% again suggested that a diverse mix of customers had shown an interest.

Over four-fifths of businesses (81%) were aware that there was now a public observatory at the DSP, with half of those also aware that there were a number of events held at the observatory. Almost three-fifths (58%) actively promoted the events at the observatory.
4.6 Promotion and Package Deals

Businesses were asked whether or not they promoted the DSP to their customers, and through which channels they did so. The majority of businesses (86%) promoted the DSP, with Figure 3.2 detailing the means of advertising used.

**Figure 3.2: Forms of advertising used**

<table>
<thead>
<tr>
<th>Method</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Verbally</td>
<td>69%</td>
</tr>
<tr>
<td>Leaflets/brochures</td>
<td>71%</td>
</tr>
<tr>
<td>Website</td>
<td>69%</td>
</tr>
<tr>
<td>Social media</td>
<td>7%</td>
</tr>
</tbody>
</table>

Three forms of advertising were used by approximately two-thirds of businesses – verbal and through business website (69%), and leaflets/brochures (71%) - only 7% of businesses advertise the DSP through social media. One respondent also commented that they were an ambassador for the DSP.

When asked to clarify the nature of the promotion they undertook, the majority of businesses (74%) responded that they promoted general awareness of the DSP, with the remainder (26%) also promoting events which take place at the DSP, in addition to raising general awareness.

Businesses who did not promote the DSP were given an opportunity to provide a reason for this, with reasons including that visitors to the DSP comprised such a small proportion of their guests that it was not worthwhile offering packages, and that Forestry Commission Scotland (FCS) had made no attempt to contact them, thus they did not feel compelled to help attract guests to the DSP.

Just over one fifth of businesses (23%) have developed packages/activities linked to the DSP. The types of packages/activities on offer include:
• specialist packages of dinner, talks, tours to DSP and two nights' accommodation (three businesses offer such packages);

• tours of/visits to the DSP;

• information packs; and

• offering a 15% discount on room rates for those who come to visit the DSP.

At the time of writing, four businesses indicated that they have guests booked for forthcoming events in the DSP, with one business having guests booked for this year, and the remaining three having confirmed bookings for 2014.

Those who do not offer packages to attract guests were asked to provide reasons for this, with responses including:

• they need more information about the DSP before they can offer a package (four businesses);

• financial/business reasons (three);

• people who come for the DSP are well aware of what is on offer and would be in the area anyway (two);

• they are too far away from the DSP (one); and

• they don’t have enough business from the DSP to justify offering packages (one).

4.7 Suggested Improvements

Businesses were given the chance to suggest any improvements that they would like to see made to the DSP in future in the following three categories.

Signage and Interpretation

Five businesses stated that there are not enough signs in the local area promoting or mentioning the DSP, with one respondent suggesting more road signs could be introduced, and another suggesting the introduction of signs near accommodation in order to maximise awareness.
Marketing/Information on the DSP

Seventeen businesses provided a response, with the most popular suggestion being to improve the information provided directly to local businesses (eight respondents). Other common suggestions included:

- increase marketing of the DSP (e.g. more leaflets – three businesses);
- collaborate with other local tourist attractions/amenities (three);
- general improvements could be made (two);
- offer familiarisation trips to local businesses (one);
- tie in with local businesses (one); and
- ensure that the DSP is afforded the same attention as other amenities in the area (one).

DSP Website

One business suggested providing links to other local tourism attractions and two mentioned that they had never used the DSP site.

4.8 Future Importance

Businesses were asked how important they felt the DSP is in both attracting visitors to the area in future, and area out of season. Figure 3.3 offers a breakdown of responses.
Figure 3.3: Importance of the DSP as a visitor attraction

A total of 71% of businesses stated that the DSP was very important/important in attracting visitors to the area/attracting visitors out of season. Just under one-fifth (17%) felt that the DSP was unimportant/very unimportant in attracting out of season visitors to the area.

4.9 Role of Business Workshops

Just over one-fifth of businesses (22%) attended at least one of the business workshops for the DSP. Those who did were asked to rate how useful they found this event in terms of providing information on how the DSP could be of benefit to businesses – all businesses stated that these events were either very useful or useful (50% of respondents each).

Of those who had attended a workshop – five businesses indicated that they had taken action since attending. When asked to detail this, actions included: further reading into the subject; taking guests to visit the DSP; providing further information to guests; developed packages; and developed a themed beer.

The majority of businesses who had not attended any of the workshops expressed an interest in attending any future workshops, with 85% willing to attend an event in their local area, and 74% at an FCS centre.
4.10 Further Information on the DSP

Almost three-fifths of respondents (61%) indicated that they were aware that further information for businesses on maximising the benefits of the DSP is available on the FCS website. Further, businesses were asked which types of information they had made use of (Figure 3.4).

**Figure 3.4: Information accessed by businesses**

<table>
<thead>
<tr>
<th>Information</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Made use of the links on the DSP page</td>
<td>30%</td>
</tr>
<tr>
<td>Stargazers Welcome Pack</td>
<td>30%</td>
</tr>
<tr>
<td>DSP logo</td>
<td>22%</td>
</tr>
<tr>
<td>Linked your website to the DSP page of the FCS site</td>
<td>22%</td>
</tr>
<tr>
<td>Galloway Forest Astronomical Society’s advice for accommodation providers</td>
<td>7%</td>
</tr>
<tr>
<td>Subscribe to the business newsletter</td>
<td>7%</td>
</tr>
</tbody>
</table>

N=13; Multiple responses possible

Businesses had made use of a number of sources, with links on the DSP webpage and reading the Stargazers Welcome Pack (30% of businesses each) being the most popular information accessed. Only 22% of businesses use the DSP logo on their website – the same number as those who had linked their website to the DSP page of the FCS site.

Half of all businesses indicated that they needed more information about the DSP before they can use it in their business. Interestingly only 40% of those that said they required further information were aware that further information is already available on the FCS website. Those who felt they needed further information were asked which types they feel would be of use. The most common suggestions were:

- promotional leaflets (four businesses);
- more general information (two);
- improved DSP website (one)
- business familiarisation trip (one); and
- provide updates to show how other businesses are taking advantage of the DSP.

4.11 Other Comments

All businesses were invited to provide any other comments. The most common responses were:

- would like to see the DSP allow businesses to advertise on the DSP site (three businesses);
- the DSP is a good attraction (two);
- DSP needs a dedicated standalone website (two); and
- FCS need to support local businesses in promoting the DSP (two).

Additional responses, as cited by one respondent each include: would like to see more DSP related activities in the local area; a pool of local experts who can be called upon at short notice as required; more businesses are beginning to offer packages, thus it is becoming more competitive; and the increasing number of DSP sites in the UK could mean a loss of business in the area.
5. Economic Impact

5.1 Introduction

This chapter sets out the economic impact of the DSP at the current time and a 10-year forecast.

5.2 Approach

Our approach to assessing the current economic impact covered the following three market components:

- Overnight visitors:
  - Commercial
  - Visiting Friends & Relatives (VFR); and
- Day visitors.

5.3 Current Economic Impact

5.3.1 Visitor Numbers

Commercial Market

This involved a random sample survey of 120 businesses in the accommodation sector. This was used to identify the number of businesses that had had an impact from the DSP. For those that had experienced an impact we collected data on the scale of the impacts. We then supplemented this with some interviews with accommodation providers that we knew had experienced an impact. We also undertook an online survey of self-catering providers.
Having identified the proportion that had experienced an impact we grossed this up to the total population of accommodation businesses within our boundary\textsuperscript{1}. 

\textsuperscript{1} TRC (2011) \textit{Dumfries and Galloway Accommodation Audit}
We grossed up on the basis of rooms/pitches rather than businesses as we felt that this would give a more appropriate weighting\(^2\). The impact for each type of accommodation category (hotels, guest house/B&B, self-catering, hostel and camping/caravan site) was identified and we then grossed up on that basis. This process gave a total of 3,270 bed nights in the commercial sector.

**VFR Market**

Some visitors will stay with friends and relatives. There was no easy or cost effective way to interview this group of people. Rather our approach was to assume that the proportional impact on this sector was the same as the commercial sector which can be calculated using the figure above and data from VisitScotland\(^3\). We can also use the VisitScotland data for the number of nights that are VFR in the Dumfries & Galloway area. We then accessed the latest population figures for Dumfries & Galloway\(^4\). From this we can calculate that the VFR nights per head of population is 7.3.

We then estimated the population in our boundary which was 140,052. We calculated the number of VFR nights this population will generate and the proportion of this which would be due to the DSP which gave a total of 1,515 bed nights.

**Day Visitor Market**

We are interested in the number of day visitors that are from outside the local area (those from within the local area are just displaced in economic impact terms). We have information on the number of day visitors from outside the local area from a study undertaken by the consultancy team\(^5\). We also have access to survey which identified how many day visitors from outside the local area had visited the DSP in the last twelve months\(^6\). In addition to this there are also day visitors to the new

\(^2\) Note: The grossing up process only used the businesses that were interviewed in the random sample, those that were targeted as we knew they had an impact were not used in this part of the process as their selection was not random
\(^3\) Tourism in Southern Scotland 2011
\(^4\) GROS Mid-Year Population Estimates 2012
\(^5\) EKOS and TRC (2009) Galloway Forest Park Economic impact Assessment
\(^6\) Nature Tourism and Land Designations in the South West of Scotland
observatory. Information on total numbers have been accessed from the SDO\textsuperscript{7} and we have had to estimate the proportion that are likely to have been day visitors.

Using these two sources we have estimated that day visitors from outside the local area totals 4,101.

**Total Number of Days and Bed Nights**

The total number of days and bed nights associated with the DSP is 8,886.

**Table 5.1: Days and Bed Nights**

<table>
<thead>
<tr>
<th>Number of days</th>
<th>Number of bed nights</th>
</tr>
</thead>
<tbody>
<tr>
<td>4,101</td>
<td>4,785</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>8,886</td>
</tr>
</tbody>
</table>

**5.3.2 Expenditure**

Average daily expenditure has been taken from VistScotland data\textsuperscript{3} for overnight visitors and is £62.24\textsuperscript{8}. For day visitor spend we have used information from the GFP study\textsuperscript{5} which is £16\textsuperscript{9}.

The number of days and bed nights are then multiplied by the average daily expenditure, giving net direct expenditure of £363,443.

**Table 5.2: Direct Expenditure**

<table>
<thead>
<tr>
<th>Day</th>
<th>Overnight</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of days/bed nights</td>
<td>4,101</td>
<td>4,785</td>
</tr>
<tr>
<td>Average daily spend</td>
<td>£16.00</td>
<td>£62.24</td>
</tr>
<tr>
<td>Gross Expenditure</td>
<td>£65,622</td>
<td>£297,821</td>
</tr>
</tbody>
</table>

**5.3.3 Multipliers**

The economic activity as a result of the DSP will also have two types of wider impact on the economy:

\textsuperscript{7} Not reported here as commercially confidential
\textsuperscript{8} Weighted average for UK and Overseas visitor inflated to 2013 prices
\textsuperscript{9} Inflated to 2013 prices
• **supplier effect**: an increase in sales in a business will require it to purchase more supplies than it would have otherwise. A proportion of this ‘knock-on’ effect will benefit suppliers in the local economy; and

• **income effect**: an increase in sales in a business will usually lead to either an increase in employment or an increase in incomes for those already employed. A proportion of these increased incomes will be re-spent in the local economy.

The multiplier applied to the direct expenditure is 1.41.

5.4 Total Output

Applying the multiplier gives total output of £512,455 that is associated with visitors to the DSP.

5.5 Future Growth

**Direct Expenditure**

We were also asked to provide a 10-year forecast for the potential future growth of the DSP visitor market. We have estimated that there is a potential for a further 8,550 days and bed nights. However, some of these days and bed nights will have been displaced from other activities in the local area. This has been estimated at 30% and after applying displacement it gives net additional growth in days and bed nights of 6,010.
### Table 5.3: Direct Expenditure

<table>
<thead>
<tr>
<th></th>
<th>Day</th>
<th>Overnight</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Current</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of days/bed nights</td>
<td>4,101</td>
<td>4,785</td>
<td>8,886</td>
</tr>
<tr>
<td>Average daily spend</td>
<td>£16.00</td>
<td>£62.24</td>
<td>-</td>
</tr>
<tr>
<td>Gross Expenditure</td>
<td>£65,622</td>
<td>£297,821</td>
<td>£363,443</td>
</tr>
<tr>
<td><strong>Net Growth</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of days/bed nights</td>
<td>2,712</td>
<td>3,299</td>
<td>6,010</td>
</tr>
<tr>
<td>Average daily spend</td>
<td>£16.00</td>
<td>£62.24</td>
<td>-</td>
</tr>
<tr>
<td>Gross Expenditure</td>
<td>£43,386</td>
<td>£205,309</td>
<td>£248,695</td>
</tr>
<tr>
<td><strong>Total Future (10-year forecast)</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of days/bed nights</td>
<td>6,813</td>
<td>8,084</td>
<td>14,897</td>
</tr>
<tr>
<td>Average daily spend</td>
<td>£16.00</td>
<td>£62.24</td>
<td>-</td>
</tr>
<tr>
<td>Gross Expenditure</td>
<td>£109,008</td>
<td>£503,130</td>
<td>£612,138</td>
</tr>
</tbody>
</table>

### Output

If we apply the multipliers to these direct expenditure figures gives total output of £863,115.

### Table 5.4: Total Output

<table>
<thead>
<tr>
<th></th>
<th>Output</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Current</strong></td>
<td>£512,455</td>
</tr>
<tr>
<td><strong>Net growth</strong></td>
<td>£350,660</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>£863,115</td>
</tr>
</tbody>
</table>

However, this growth needs to be profiled over time, which is given below. Generally people prefer to receive goods and services now rather than later – known as the ‘time preference’. Therefore, it is necessary to discount the impacts over time. A discount rate of 3.5% has been applied as recommended by the Green Book.
Table 5.5: Total Output

<table>
<thead>
<tr>
<th></th>
<th>Growth</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Output</td>
<td>Output (Discounted)</td>
<td></td>
</tr>
<tr>
<td>2014</td>
<td>£49,739</td>
<td>£67,760</td>
<td>£582,587</td>
</tr>
<tr>
<td>2015</td>
<td>£99,478</td>
<td>£130,938</td>
<td>£652,719</td>
</tr>
<tr>
<td>2016</td>
<td>£149,217</td>
<td>£189,765</td>
<td>£722,851</td>
</tr>
<tr>
<td>2017</td>
<td>£190,279</td>
<td>£233,802</td>
<td>£780,748</td>
</tr>
<tr>
<td>2018</td>
<td>£248,695</td>
<td>£295,246</td>
<td>£863,115</td>
</tr>
<tr>
<td>2019</td>
<td>£248,695</td>
<td>£285,262</td>
<td>£863,115</td>
</tr>
<tr>
<td>2020</td>
<td>£248,695</td>
<td>£275,616</td>
<td>£863,115</td>
</tr>
<tr>
<td>2021</td>
<td>£248,695</td>
<td>£266,295</td>
<td>£863,115</td>
</tr>
<tr>
<td>2022</td>
<td>£248,695</td>
<td>£257,290</td>
<td>£863,115</td>
</tr>
<tr>
<td>2023</td>
<td>£248,695</td>
<td>£248,589</td>
<td>£863,115</td>
</tr>
<tr>
<td>Cumulative</td>
<td>£1,980,883</td>
<td>£2,250,565</td>
<td>£7,917,597</td>
</tr>
</tbody>
</table>

The level of forecast growth could be achieved over a five year period with it stabilising at that level.
6. Potential Funding Sources

6.1 Introduction

We have also looked at potential funding sources for the DSP.

6.2 Possible Sources

Biosphere

Our consultations have identified that the Biosphere may be a route through which the DSP could be supported. Indeed the Biosphere has secured funding for three years which will include Biosphere Officers – one of whose remit will include developing the DSP.

It may be that the Biosphere project could fund or make applications for support to fund some project activity. The Biosphere already brings together a number of different organisations and funding sources including the Scottish Government, the European Community Ayrshire and Dumfries & Galloway LEADER 2007-2013 Programmes, Dumfries & Galloway Council, East Ayrshire Council, South Ayrshire Council, Scottish Natural Heritage, Forestry Commission, Scottish Environmental Protection Agency, Southern Uplands Partnership and Ayrshire Joint Planning Unit.

Therefore, it would make sense for the DSP to be further developed through this group to provide a co-ordinated approach and access to potential funding sources from different members for specific project based activity.

Dumfries & Galloway and Ayrshire LEADER

The LEADER Programme ran from 2007-2013 and is currently closed with the next programme period being 2014-2020. The DSP would have fitted well with one of the key aims of this programme which was to ‘develop a diverse and dynamic business base’. This is demonstrated by the type of projects that were supported under the programme which included:
- **Connecting Businesses with Mountain Bikers Phases 1 and 2**: the aim of the project was to stimulate and support tourism businesses to maximise the economic return from mountain biking and in particular the publicly funded 7stanes. They received total LEADER funding of £44,000;

- **Motorcycle Tourism**: the aim of the project was to increase motorcycle tourism in Moffat and bring benefits to additional businesses on routes throughout Dumfries and Galloway, including increasing the number of biker friendly businesses and to improve the website and promotional activity. They received £23,000 from LEADER;

- **Promotion of Angling across D&G**: the main aim of the project was to promote the wide range of affordable accessible fishing available in D&G. They received £17,000 from LEADER.

The new programme for 2014-2020 is currently under development.

**VisitScotland Growth Fund**

The VisitScotland Growth fund supports a range of regional, national and sectoral groups to deliver marketing campaigns across Scotland. Funding can cover 50% of approved marketing costs from a minimum award of £5,000 up to a maximum of £65,000.

It is available for new marketing activity or to further develop current activity which will generate additional visitors to Scotland. Whilst subsequent applications can be made (there was already funding of activity for the DSP as discussed earlier) the funding cannot support repeat activity and should not be considered as long term core funding.

Groups must consist of a minimum of three tourism businesses and there is a requirement for a minimum of 25% of private sector funding (which raises the point about which group support would need to be delivered through).

**Scottish Enterprise**

Tourism is one of the key industries which SE support within the Scottish economy. Tourism Scotland 2020, the new industry strategy, aims to drive growth by
translating Scotland’s rich and diverse tourism assets into quality, authentic visitor experiences at every stage of the customer journey.

The DSP would certainly match with the new industry led market-focused approach aimed at generating increased value from our distinctive tourism assets – a key one being the natural environment.

**Trusts**

There are a number of trusts throughout the UK that make grant awards to organisations – in many cases charities or not for profit organisations. An example of a couple are as follows:

**Name:** MacRobert Trust  
**Organisations they support:** those registered with OSCR  
**Geography:** UK wide but preference for Scotland  
**Relevant Themes:** Theme four is science, engineering and technology  
**Value of grants:** Usually £5,000 and £25,000  
**Application times:** twice a year

**Name:** Esmee Fairbairn  
**Organisations they support:** majority supported are charities or not-for-profit  
**Geography:** UK wide  
**Relevant Themes:** A key strand is environment  
**Value of grants:** They do not specify  
**Application times:** rolling programme

There are a large number of other trusts in the UK. Key aspects to look for when going down this route is what key themes they like to support, geography (do they have a preference for Scotland). However, trusts do tend to have a high demand for their funds and there is a need to fill in application forms and there may also be site visits, etc.
7. Conclusions and Recommendations

7.1 Introduction

This Chapter provides a set of conclusions and recommendations.

7.2 Current and Future Potential Economic Impact

The DSP is currently generating just under 8,900 visitors days/bed nights. The current output generated from these visits is just over £512,000 in the local area.

Table 7.1: Economic Impacts

<table>
<thead>
<tr>
<th></th>
<th>Current</th>
<th>Net Growth</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of days/bed nights</td>
<td>8,886</td>
<td>6,010</td>
<td>14,897</td>
</tr>
<tr>
<td>Direct Expenditure</td>
<td>£363,443</td>
<td>£248,695</td>
<td>£612,138</td>
</tr>
<tr>
<td>Output</td>
<td>£512,455</td>
<td>£350,660</td>
<td>£863,115</td>
</tr>
</tbody>
</table>

The potential net additional growth could be approximately 6,000 visitor days/bed nights and additional output of £350,000. This would give a total number of visitor days/bed nights of just under 15,000 and output of £863,000.

Table 7.2: Cumulative Output Over 10-year Period (Discounted)

<table>
<thead>
<tr>
<th>Output (Discounted)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Growth</td>
<td>£2,250,565</td>
</tr>
<tr>
<td>Total</td>
<td>£6,512,452</td>
</tr>
</tbody>
</table>

The cumulative output over the ten-year period is £2.25m for the growth and £6.5m for the total output.
7.3 Contribution to the Character and Tourism Attraction of the Area

The DSP has provided the local area with a USP with which to promote the tourism offer. There are a number of key aspects to this in that the DSP:

- predominantly attracts visitors in the shoulder months and winter season, when the accommodation providers have spare capacity. It therefore brings welcome additional income during the quieter periods of the year;
- complements a number of other sub-sectors of the tourism offer in the local area, including wildlife watching and outdoor activities. Importantly in doing so it:
  - fits very well with the overall image of the area that these different activities portray e.g. the natural environment and the great outdoors
  - adds to the local offer without duplicating what these others sub-sectors offer
  - offers an activity in the evening, which is particularly useful in a more rural area where evening activities may be more limited; and
- fits very well with and will complement the Biosphere which is set to become a key focus for the area over the next few years.

7.4 Other DSPs and Displacement

Other DSPs

The activity in Sark is relatively small scale but that, in part, reflects the size and location of the Island. In the case of the Brecon Beacons, being a Dark Sky Reserve they have experienced a number of the aspects that Galloway has – media coverage, visitors in the shoulder and winter months, and a move towards greater control on light pollution.

They are however running events on a larger scale of about 80-100 people and have an education programme running with local primary schools. They also operate a formal promotion approach from local businesses through an Ambassador Programme and are looking to install a telescope at the main visitor centre.
Kielder and Northumberland National Park is currently in the process of applying for Dark Sky Reserve status. However, they do have some experience in the area having had an observatory for five years, which they are planning to expand as it cannot cope with demand at peak periods.

Displacement

The Brecon Beacons and Sark are somewhat distant from Galloway and it is therefore very unlikely that they are taking any of Galloway’s market. Kielder and Northumberland National Park is much closer to Galloway. However, to a certain extent it already has a place in the market through its observatory. It is questionable whether there would be a large number of people that would go to the Kielder/Northumberland area for a dark sky experience that would bypass it to come to Galloway because it has the DSP designation. Kielder has a large area of dark sky and an observatory so can already meet the needs of those resident in or visiting that local area.

So rather than the issue for Galloway being the award or otherwise of status to Kielder, it is more about Galloway needing to develop new approaches if they wish to sustain and grow their existing market (these are discussed in greater detail below). There is an opportunity to grow the market (suggested by the increasing website traffic and popularity of the existing events, for which feedback is also very good) but it will require in part some intervention from the public sector to achieve this.

However, there may be more concern if there was a proliferation of dark sky areas, if there are too many of them then this will dilute the uniqueness and potential market available to Galloway. Areas where development may have more of an impact on Galloway are elsewhere in Scotland near to the central belt or in the North West of England.

7.5 Constraints and Opportunities

A lot has already been achieved in the DSP, particularly though the activities of the FCS, aided by partners. However, there is a limit to how much can be achieved through this approach and there is a need to establish an overarching framework going forward. One the issues in local area (as in many other areas) is that there are a number of different agencies promoting the tourism offer. Any extent to which
a more co-ordinated approach can be achieved will be beneficial for the delivery agencies and the visitors.

The Biosphere is to be a key focal point, especially over the next three year's.

It has been proposed that the Biosphere could act as an overarching framework within which would sit a number of other aspects including the local environment, wildlife, local food, GFP, the DSP, etc. This would seem like an appropriate way to take the DSP forward.

**Recommendation 1: DSP to sit within the wider Biosphere framework.**

One of the key constraints with the DSP is its lack of tangibility, which is an issue for both visitors and businesses. Whilst there is a designation in place many people do not necessarily know how to engage with it. Without tangible products then for many it is just an area of dark sky. This is not an issue for the enthusiasts, they will find their way there and to a certain extent do their own thing. However, the broader market needs something to engage with.

Part of this will be resolved by the new observatory which provides a focal point. However, this does not address the issue in full as the Observatory is in the north of the park, a long drive from much of the accommodation supply and tourism offer. Therefore in addition to the Observatory there also needs to be something on offer in the south of the park. This ideally needs to be in the form of events. However, at present there is too much reliance on a small number of people and a couple of accommodation providers to provide for this market. If the market is to grow then there is a need to have more resources available to undertake events.

The potential way forward is to train some local people to be ‘DSP Communicators’. This would allow them to gain enough knowledge that they could undertake talks and explain to people what can be seen in the night sky. In addition to training, these communicators could also liaise with businesses to develop ‘package’ deals. This could be in the form of exclusive packages with individual accommodation businesses, or events that a number of accommodation providers could promote. The aim is for many of these events to be promoted by the accommodation providers with them just purchasing the communicators time for a fee.

**Recommendation 2: Secure funding to train DSP Communicators and pay for a development period to establish a DSP offer with local accommodation providers.**
However, where a number of accommodation provider are engaging with a DSP Communicator on an event, there will also be a need to promote this event through other means.

**Recommendation 3: Promotional activity and materials to be focused on promoting events at the observatory and in the south of the park.**

Many businesses are already aware of the DSP but many are still not aware of it or specifically what it has to offer.

The DSP Communicators will be able to undertake part of this role as they liaise with businesses about developing event packages. A number of businesses that were not aware or had not had an impact from the DSP expressed a willingness to attend a workshop. However, we would propose a two stage approach:

- **Stage 1:** An email to businesses with a short and sharp overview of where and what the DSP is, the events and observatory, packages people have developed and potential benefits. Also directing them to the information on the website (many businesses still seem unaware of this resource). They can then decide if the DSP is of interest or close enough to them. They can be asked if they would be interested in attending a workshop based on what they have read; and

- **Stage 2:** Undertake workshops including an element with the DSP Communicators.

**Recommendation 4: Raise awareness amongst businesses of the DSP and specifically what it has to offer – so they can help to promote it. The focus of this should also be on the events, observatory and the role of DSP Communicators.**

### 7.6 Collaborative Actions

One of the main issues for the DSP is cloud cover and potential disappointment if it is not a clear sky. Ways to address this are through the type of offer within the events including talks (through the communicators) linked to the visitor centres/accommodation providers so that people can listen to talks indoors and have access to food & drink, potentially images/video feeds from elsewhere or other nights, astrophotography pictures that have been taken in the park. A number of the events developed by accommodation providers already included aspects of this and
the public events promoted through the FCS website have also now developed in this way. The FCS website also now sets out the various components of the events.

There is also an opportunity to develop activities with other product offers in the area e.g. wildlife watching, walking, etc. and events.

If people are undertaking more than one activity as part of their short break then if there is cloud cover it may be less of an issue (particularly if the DSP event includes some of the other aspects mentioned above). Linking with events means that if there is some flexibility within the communicators’ time that people coming to the event anyway could book onto a DSP event ‘weather permitting’.

**Recommendation 5:** *Develop multi activity packages and links with events.*

### 7.7 Widening the Geography

There is a possibility of widening the geography either in terms of a Dark Sky Reserve or referring to it as a ‘Region of Astronomy’. However, some consideration should be given to this in terms of how it is handled for the tourism market. One of the key issues for tourists and businesses is a lack of tangibility around the idea of a Dark Sky Park. If anything they are looking for focal points around which to visit and promote the DSP, respectively. Broadening the geography would not necessarily make it more appealing to them.

The other aspect is that if it is classed as a ‘Region of Astronomy’ there would be a need to deliver against that i.e. people may expect there to be a number of astronomy attractions within the area. As, to date, resources have not been easy to come by, then it may make sense to focus on tourism within the DSP rather than trying to spread resources too thinly across the region.

Indeed within the DSP itself there are a number of sites identified for viewing. It would be useful to distinguish between these sites with some being the key sites - Kirroughtree, Glentrool, Clatteringshaws and the Observatory, with the others being secondary sites where people can also observe from if the wish. This is already taking place to a certain extent – with the new interpretation focused on these sites. Further distinction focusing on these key sites in promotional activities, the website, etc and investment and events will give a clearer focus for businesses and visitors.

**Recommendation 6:** *Focus efforts on the key sites.*
Having said that designation is not just about tourism but also environmental aims and designating a wider area will potentially lead to reduced light pollution, emissions and enhanced design schemes. Therefore, it is about how this wider area designation would be handled in terms of the tourism and environmental aims.

7.8 Possible Funding Sources

A key way forward for the DSP at this stage is through the Biosphere. There will be some dedicated resource through a Biosphere Officer and if funding can be accessed to support training of ‘communicators’ and for liaison with businesses then this will be key in spearheading the approach going forward. If some money can also be secured for promotional activities and materials (possibly from the future LEADER Programme or the Growth Fund) then in the short term this can help to grow the market. However, the aim would be to develop a self-sustaining model going forward.

7.9 Priorities

The priorities in regional terms are both in the north of the Park through the Observatory and the south of the Park through the key sites at Kirroughtree, Glentrool and Clatteringshaws. There needs to be this balance across the park for the growth to be achieved. The focus is on events through these sites, as this will be the most effective way to engage with the wider (non-enthusiast) market. Rather than trying to identify ways that businesses may develop and innovate and hoping that they will take this forward (some have already engaged but many others have not), as there is still a need to bring more of them into the process. The approach is to pump-prime activity through the Biosphere and other potential funding sources but with the aim to transfer the activity to an accommodation and observatory-led model. The potential size of the market is such that it does not necessarily require a large number of accommodation providers to take part so the focus should be on those that show some enthusiasm for the DSP.
Appendix A – Other Dark Sky Locations

Sark – Dark Sky Island

Sark is a small island with a population of only 600 to 650 people, but attracts around 50,000 tourist visitors per annum. The Dark Sky Island (DSI) is operated with volunteer helpers. They raised £5,000 for the initiative of which £1,500 was from the private sector. The power station, post office and chamber of commerce are supporters of the scheme. Volunteers have organised five star festivals in the last two and a half years i.e. one every six months.

The Island’s Stocks Hotel is very enthusiastic and organises Astro-dinners, meetings and has engaged in the star festivals. However, four of the largest hotels on the island do not support the initiative.

The star festivals attract around 30 / 40 people and are free events. They comprise an inflatable planetarium, guest speakers, films, guided stargazing and a range of other activities. Most of the attendees are local people. The DSI has only had a very small impact on overnight tourism. The off-island market for the DSI are mainly English, winter short break visitors, with a keen interest in wildlife or outdoor type holidays.

There is greater potential for boosting winter tourism, but a more dedicated staffing resource and budget would be required to help market the facilities.

Brecon Beacons – Dark Sky Reserve

The main strengths of the designation as a Dark Sky Reserve are seen as:

- the access to increased Destination Marketing opportunities, there is better access to national and international journalists;
- the local tourism association has also embraced the Dark Sky theme as a central marketing strand;
- the number of visitors have been boosted in the shoulder and winter months although this is reported not to be quantifiable and they are not sure whether demand is still increasing although they have had many more enquiries since achieving Dark Sky status;
- specific guidelines have been developed locally to help control light pollution;
there has been good engagement with local communities particularly in light pollution issues.

Dark Sky stargazing evening events are run in the Brecon Beacons and on average they attract 80 to 100 people. They are very popular and they always sell out. These events consist of a mobile planetarium; expert talks and a stargazing experience, weather permitting. Local societies are interested in the status and what it means. Three local business groups have also organised community stargazing events. They also operate an Ambassador Programme where local business can sign up for a free two-day training programme and get a certificate and badge. An education programme has been run with 10 local primary schools that have been successful in terms of feedback from teachers.

Aims and issues for the future include:

- development of specific guidelines for lighting and train planners to advise those wishing to develop in the National Park;
- hold a debate in the Senedd (Welsh Parliament) to raise awareness of the problem of light pollution;
- increase the number of stargazing events;
- install a telescope at the main visitor centre;
- too many Dark Sky designated areas would reduce the novelty, but if the highest quality is maintained throughout, then more designated areas will add to the critical mass and increase the public’s awareness and also the lobbying power of the Dark Sky movement; and
- there needs to be a coordinated voice for the Dark Sky Movement so the public understand the concept and the different terminology.

Northumberland and Kielder Forest – Proposed UK’s Largest Dark Sky Park

The Kielder Observatory opened in 2008 and has attracted between 30,000 and 40,000 visits since it opened, 6,000 to 8,000 visitors per annum. It helps to create an out of season market. There are plans to extend the Observatory, as it is not large enough to cope with demand at peak periods. It is estimated that 23% of the demand for the Observatory is from overnight visitors. This compares with 78% overnight tourism demand to Northumberland National Park during the summer months.
The Kielder Forest and the Northumberland National Park combined will make this (if successful) one of the largest Dark Sky Parks in Europe and the first in England. The decision will be made in late 2013. Accommodation businesses and the local community are engaging with the project. What makes it easier is that there is a single voice promoting and a development plan for the Dark Sky Park - Kielder Water Forest Park and Development Trust, however there needs to be a good, but simple website with great linkages and joined up thinking.

The main aims of the DSP are economic, hopefully boosting tourism (they quote Galloway as an example of success in this). They are also working hard with local communities, business and the local Council to achieve the necessary low levels of light pollution and see the ecological and protection of the night sky as equally important. The Council are focussed on reducing their energy bills so the timing of the Dark Sky initiative is fortuitous and as a result new and more energy efficient street lighting is being installed.

The Trust believe that whilst Northumberland will be a competitor to Galloway, there may be the opportunity for joint events. The Dark Sky sites in the North of England and the South of Scotland should be exploited. The DSP will grow the overall awareness of the night sky and visitor numbers should increase. By extending the Park to include the Northumberland National Park, it not only extends the area it also significantly boosts the number of local residents and communities within the DSP area. It is also felt that the DSP may not have a great impact on increasing the number of overnight tourist visitors, but it creates the correct messages and reinforces the image of the area and the National Park Status. The Dark Skies Project is and will be being supported under LEADER, ERDF and The Rural Development Fund England, on a project-by-project basis.

The idea is to train a number of volunteer Dark Skies rangers, volunteers and self-employed animators and work directly with accommodation providers and local businesses. Northumberland Uplands Local Action Group (NULAG) has set up a small fund to support organisations to make study visits, attend conferences or share lessons and ideas with other groups and businesses. Local businesses are already working to develop new astro-tourism activities. One local business in Wark, The Battlesteads Hotel and Restaurant has submitted an application to Northumberland County Council for a small observatory.
Some local businesses have already run stargazing packages and more business training seminars funded through the programme are planned. A familiarisation and lecture programme supported by Northumbrian Water and the Observatory has been set up.