

# Bellerby Economics

in partnership with



## Assessment of the Economic Value of the Re-opening of the Bervie Braes

Final Report for

**Aberdeenshire**  
COUNCIL



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# Bellerby Economics

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## Executive Summary

### Introduction

The Bervie Braes carries the road which links Stonehaven with Dunnottar Castle. This route above the cliffs was sealed off in December 2009, when it was closed following a series of landslips after days of torrential rain flooded homes and businesses in the centre of Stonehaven. Proposals to protect homes from landslips through a partial slope remediation scheme were agreed by Aberdeenshire councillors in 2011; the Council set out to treat as much of the lower slope as possible but financial constraints meant that it was only able to complete a percentage of the area deemed to be at risk, and therefore prioritised the remediation on the areas at greatest risk of failure. The £3m scheme was funded by the Scottish Government and Aberdeenshire Council. Barriers have also been installed as an added safety measure on the road.

In April 2013 Aberdeenshire Council announced that the Bervie Braes road between Stonehaven and Dunnottar Castle would reopen during the summer months, subject to continued monitoring. Under the new scheme, the road will open between April and October, with a weight limit of three tonnes, a 20mph speed limit and a one-way system running from Dunnottar Castle into Stonehaven.

The Stonehaven Towns Partnership (STP) campaigned strongly for the reopening of the road, arguing that there would be a significant economic impact through being able to retain tourists in the Stonehaven area. An economic impact assessment was commissioned by the STP, with its starting point being that the road had been closed for a number of years and it was feared would remain so. The study indicated that the economic benefit to Stonehaven and the surrounding area from the reopening of the Bervie Braes could be as much as £9.3m a year. This study highlighted the need for a visitor survey and a fully compliant economic impact assessment in order that the precise value of the economic impact can be calculated. Aberdeenshire Council therefore commissioned Bellerby Economics, in partnership with IBP Strategy & Research, to conduct such a study. The study included:

- a consultation programme with key industry stakeholders as well as Aberdeenshire Council and economic development agencies;
- a desk review of data relating to visitors to Dunnottar Castle and Stonehaven Town Centre;
- a visitor and business survey;
- a critical assessment of the previous economic study; and
- an economic impact assessment of the re-opening of the Bervie Braes.

### Key Findings

#### Consultations

Discussions with key industry stakeholders highlighted:

- a recognition of the importance of Dunnottar Castle to Stonehaven's tourism industry. Its recent high profile is seen as having been important in bringing tourists to the area, particularly overseas visitors;

- that the town and the tourism sector had been adversely affected by recent events - the economic crisis that had impacted on the world economy, but more locally the impact of the weather resulting in the town being flooded;
- a majority view that the closure of Bervie Braes had led to a reduction of those visitors to the Castle subsequently visiting Stonehaven. This was anecdotal and they were unable to quantify whether the closure of the Bervie Braes had led to an economic loss to Stonehaven's tourism sector; and
- a general feeling that since the re-opening of the Bervie Braes the number of tourists in the town had increased - again this is anecdotal although visitor inquiries at the Visitor Information Centre had increased.

Discussions with Aberdeenshire Council's Roads Services highlighted:

- the costs of stabilisation, when completed, would be around £3.5m, with ongoing maintenance of some £5,000 per year;
- there is a risk of further landslips and therefore Aberdeenshire Council decided that, to minimise the risk to road users, it would open the road during the spring/summer and close the road from the end of October to the beginning of April; and
- to date<sup>1</sup> the 7 day average traffic flow over a 24 hours period was 420 vehicles, with a peak traffic flow in any given 24 hour period of 540 vehicles. However, not all of these trips down the Bervie Braes can be attributed to tourists, as the road is used by local people as a short cut into the town.

## Visitor Survey

The key findings from the visitor survey were as follows:

- 90% of visitors to the Castle spent money in Stonehaven and surrounding area after or before visiting the Castle
- most respondents were on their first visit to Dunnottar Castle;
- most of those who had visited before did so before the Bervie Braes were closed;
- visiting Dunnottar Castle was not a major factor in the decision to visit the Stonehaven and surrounding area - 60% of the respondents said it was not a factor or only one of many reasons for the visit;
- if the Castle was not there 40% would have visited elsewhere in the area, and 20% somewhere else in Aberdeen City and Shire;
- 75% or more were unaware of events surrounding the closure /re-opening of the Bervie Braes; and
- the closure of the Bervie Braes had no impact on visits to Dunnottar Castle; and
- almost all visitors to the Castle (83%) stayed overnight either before or after their visit. The average length of stay in Stonehaven and surrounding area was 1.7 nights.

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<sup>1</sup> 18 August 2013.

## Business Survey

The key findings from the business survey were as follows:

- prior to the closure accommodation providers were already operating below capacity even during peak summer months; occupancy rates fell during the period when the Bervie Braes were closed and have increased since the Bervie Braes re-opened
- the closure of the Bervie Braes was felt to have had a negative impact as it reduced the number of Castle visitors who went into the town centre;
- other factors were also at play - poor weather, impacts of the flooding, general economic climate following the recession; and
- the re-opening has been largely positive, although other factors such as the very good weather in the summer of 2013 have also had an impact.

## The STP Report

The study estimated that the *economic prize* of retaining visitors in the Stonehaven and surrounding area in terms of accommodation, food and drink, events and retail, was in the region of £9.3m per annum. This is a significant over estimation as to the true economic value of the re-opening of the Bervie Braes as it implicitly assumes that:

- all non-local visitors to Dunnottar Castle would have visited Stonehaven and surrounding area if the Bervie Braes had remained open; and
- all of the visitors' spend on their trip to Aberdeenshire would be made in Stonehaven and surrounding area.

The previous study does recognise its own limitations - it does not for example address issues of non-additionality or multiplier effects - and recommended that a visitor survey and compliant economic impact assessment be conducted in order to accurately understand the economic value of the Bervie Braes to the Stonehaven economy.

## Economic Impact Assessment

The economic value to that can be attributed to the Stonehaven and surrounding area resulting from the re-opening of the Bervie Braes is not a straightforward calculation, as implied by the STP study, but is somewhat complex, and obtaining a definitive answer is by no means straight forward.

The main complication is measuring additionality - the economic benefit that accrues to the Stonehaven and surrounding area as a *direct* result of the re-opening of the Bervie Braes.

The approach adopted to estimate the economic impact involved:

- estimating impact separately for:
  - a full year of visitors
  - winter visitors - those who visit the Castle when the Bervie Braes are closed; and
- applying two non-additionality factors - 60% and 98%.

Non-additionality refers to the proportion of total outputs/outcomes that would have been secured for the Stonehaven and surrounding area economy from visitor expenditure irrespective of the existence of Dunnottar Castle or the re-opening of the Bervie Braes. The non-additionality factors used in the economic impact calculation has been derived from the visitor survey, which identified that:

- 60% of respondents would have visited Stonehaven and the local area irrespective of the presence of Dunnottar Castle - the local area has attractions other than Dunnottar Castle that bring them to Stonehaven. This suggest a non-additionality factor of **60%**; and
- for 98% of the visitors the closure/re-opening of the Bervie Brae had no impact on their decision to visit Dunnottar Castle and Stonehaven. This suggest a non-additionality factor of **98%**.

This approach means that there is no single *economic prize* calculation, but rather a range of calculations, as illustrated in the Table below.

Full Year Visitors				
	Stonehaven and surrounding area		Scotland	
	60% non-additionality	98% non-additionality	60% non-additionality	98% non-additionality
<b>Net Additional Expenditure</b>	<b>£0.86m</b>	<b>£0.04m</b>	<b>£1.0m</b>	<b>£0.05m</b>
<b>Employment Impact</b>	<b>17 FTEs</b>	<b>0.9 FTEs</b>	<b>25 FTEs</b>	<b>1.2 FTEs</b>
<b>Gross Value Added</b>	<b>£0.6m</b>	<b>£0.03m</b>	<b>£0.4m</b>	<b>£0.02m</b>
Winter Visitors				
	Stonehaven and surrounding area		Scotland	
	60% non-additionality	98% non-additionality	60% non-additionality	98% non-additionality
<b>Net Additional Expenditure</b>	<b>£0.2m</b>	<b>£0.01m</b>	<b>£0.3m</b>	<b>£0.01m</b>
<b>Employment Impact</b>	<b>4 FTEs</b>	<b>0.2 FTEs</b>	<b>6 FTEs</b>	<b>0.3 FTEs</b>
<b>Gross Value Added</b>	<b>£0.14m</b>	<b>£0.007m</b>	<b>£0.1m</b>	<b>£0.005m</b>

## Conclusion

The costs associated with maintaining the current state of the Bervie Braes is £5,000 per annum at current rates. The *economic prize* associated with the re-opening of the Bervie Braes is at least £10,000 per annum - winter visitors with 98% non-additionality. This suggests that the economic benefit to Stonehaven is twice the maintenance costs, and therefore justifies Aberdeenshire Council's expenditure to maintain the current opening arrangements for the Bervie Braes.

The economic return for all year visiting is at best £860,000 per year, and at worst £43,000 for all year visitor numbers; for winter visitors the returns are significantly lower. The return on the £3.5m investment in stabilising the remaining upper and lower slopes to enable all year opening will therefore take a number of years to be realised; around 4 years at the upper end of the economic impact, and just over 81 years at the lower end of the economic impact for all year visitors.

## 1. Introduction

### 1.1 Preamble

Dunnottar Castle is a ruined medieval fortress located upon a rocky headland about 2 miles south of Stonehaven. The surviving buildings are largely of the 15<sup>th</sup> and 16<sup>th</sup> centuries, but the site is believed to have been fortified in the Early Middle Ages. The Castle was restored in the 20<sup>th</sup> century and is now open to the public; it is one of the most popular tourist attractions in the North East of Scotland. Dunnottar Castle is a scheduled monument and twelve structures on the site are listed buildings.

The Bervie Braes carries the road which links Stonehaven with Dunnottar Castle. This route above the cliffs was sealed off in December 2009, when it was closed following a series of landslips after days of torrential rain flooded homes and businesses in the centre of Stonehaven. Proposals to protect homes from landslips through a partial slope remediation scheme were agreed by Aberdeenshire councillors in 2011. The Council set out to treat as much of the lower slope as possible but financial constraints meant that it was only able to complete a percentage of the area deemed to be at risk, and therefore prioritised the remediation on the areas at greatest risk of failure. The £3m scheme was funded by the Scottish Government and Aberdeenshire Council. Barriers have also been installed as an added safety measure on the road.

In April 2013 Aberdeenshire Council announced that the Bervie Braes road between Stonehaven and Dunnottar Castle would reopen during the summer months, subject to continued monitoring. Under the new scheme, the road will open between April and October, with a weight limit of three tonnes, a 20mph speed limit and a one-way system running from Dunnottar Castle into Stonehaven.

The Stonehaven Towns Partnership (STP) campaigned strongly for the reopening of the road, arguing that there would be a significant economic impact through being able to retain tourists in the Stonehaven area. An economic impact assessment commissioned by the STP indicated that the economic benefit to Stonehaven and the surrounding area from the reopening of the Bervie Braes could be as much as £9.3m a year. We review this study in Chapter 2.

The earlier study highlighted the need for a visitor survey and a fully compliant economic impact assessment in order that the precise value of the economic impact can be calculated. Aberdeenshire Council therefore commissioned Bellerby Economics, in partnership with IBP Strategy & Research, to conduct such a study.

### 1.2 Study Objectives

The aim of this study is to provide Aberdeenshire Council with a robust assessment of the economic value resulting from the re-opening of the road from the Castle to Stonehaven and the surrounding area.

In summary, the objectives of the research are to:

- analyse and review existing studies into the economic value provided by the Bervie Braes;

- estimate the economic value that the re-opening of the Bervie Braes brings to Stonehaven and the surrounding area through consultations with key industry stakeholders, and surveys of visitors and local businesses; and
- identify, through discussions with the Council's Roads Service, the traffic flows on the Bervie Braes and the costs of maintenance.

## 1.3 Method

The method adopted in conducting the study included:

- desk based review of:
  - data from Dunnottar Castle relating to visitor numbers
  - the previous economic impact study;
- a consultation programme with key stakeholders:
  - Aberdeenshire Council
  - ACSEF Area Tourism Partnership
  - Dunecht Estates
  - Scottish Enterprise
  - Stonehaven Business Association/Stonehaven Tourism Group
  - Stonehaven & District Community Council
  - Stonehaven Towns Partnership
  - Stonehaven Visitor Information Centre; and
- a survey of:
  - 404 visitors to Dunnottar Castle
  - 84 Stonehaven businesses.

## 1.4 Structure of the Report

The remainder of the report is structured as follows:

- **Chapter 2** presents the context for the study;
- **Chapter 3** presents the results of the consultation programme;
- **Chapter 4** presents an analysis of the visitor survey;
- **Chapter 5** presents an analysis of the business survey;
- **Chapter 6** presents the economic impact assessment; and
- **Chapter 7** presents a set of conclusions based around the study objectives.

## 2. Context

### 2.1 Introduction

To set the economic impact assessment within context we present a brief overview of:

- the Bervie Braes closure and reopening;
- Dunnottar Castle and its offerings;
- Stonehaven and its tourism offering; and
- the previous economic study.

### 2.2 The Bervie Braes

The Bervie Braes is a coastal slope which lies immediately to the west of Stonehaven Harbour, and links the town with Dunnottar Castle. The Bervie Braes has been subject to slippage over time, and this became more critical in 2009, leading to Aberdeenshire Council taking action; the wet weather in 2009 caused significant slippage leading to the road being closed. The flooding of the town three years ago led to 100 properties being damaged and more than 50 residents had to be evacuated from their homes as waters rose to several feet in lower parts of the town.

In 2010 a £3m funding package to stabilise the most vulnerable sections of the lower slopes of Bervie Braes in Stonehaven was announced. The stabilisation work, undertaken by Forkers Limited, included the following:

- installation of 1,350 soil nails and associated reinforced concrete surface pads;
- dividag 32mm hollow bar grouted soil nails were used, drilled-in with a grout flush;
- the soil nails were up to 24m long to ensure anchoring in competent strata;
- 35 test nails were installed and tested in order to verify the design;
- construction of a new slope drainage system comprising two rows of 10m long drilled raking drains at the base of the slope, outfall channels and a concrete contour drainage channel;
- replacement of existing blocked/damaged slope drainage filter/carrier drains;
- construction of new filter drains, channel drains, associated catch-pits and kerbing on Bervie Braes Road;
- installation of new or upgraded road drainage system and associated inlet / outfalls;
- reinstatement of the failed road surface over a 50m section;
- placement of mesh and erosion control matting; and
- re-vegetation and landscaping of the slope on completion.

The stabilisation programme allowed the road to be re-opened in April 2013. Under the new scheme, the road is open during summer months - April to October - with a weight limit of three tonnes, a 20mph speed limit and a one-way system running from Dunnottar Castle into Stonehaven. Barriers have also been installed as an added safety measure on the road running down Bervie Braes.

## 2.3 Dunnottar Castle

### 2.3.1 History

Dunnottar Castle is a ruined medieval fortress located upon a rocky headland about 2 miles south of Stonehaven. The surviving buildings are largely of the 15<sup>th</sup> and 16<sup>th</sup> centuries, but the site is believed to have been fortified in the Early Middle Ages. The castle was restored in the 20<sup>th</sup> century and is now open to the public; it is one of the most popular tourist attractions in the North East of Scotland. Dunnottar Castle is a scheduled monument, and twelve structures on the site are listed buildings.

William Wallace, Mary Queen of Scots, the Marquis of Montrose and the future King Charles II, have all visited the Castle. Dunnottar Castle was where a small garrison held out against Cromwell's army for eight months and saved the Scottish Crown Jewels, the 'Honours of Scotland', from destruction. The crown, sceptre and sword now reside in Edinburgh Castle.

### 2.3.2 Current

Dunnottar Castle is now recognised as the most popular paid visitor attraction in the region and is beginning to enter the 'Premier League' of Scottish castles, which includes Edinburgh Castle, Stirling Castle, Eilean Donan Castle, Urquhart Castle and Culzean Castle. Dunnottar Castle is regularly used in promotional material by the Scottish tourism industry; in addition, it was used in the 1990 movie Hamlet, and appeared as a featured desktop background in the UK edition of Microsoft Windows 7.

Dunecht Estates is planning for further growth and is expecting another record year in 2013, building on the Castle being featured as one of two Scottish castles visited by Disney's Pixar in the making of the Brave blockbuster film released in 2012. In addition the Castle has been nominated as an 8<sup>th</sup> Wonder of the World - the decision as to whether it has been successful will be made later in 2013.

**Table 2.1** and **Figure 2.1** show how visitor numbers have grown since 2010. Dunecht Estates record visitor numbers through ticket sales. Dunnottar Castle witnessed significant increases in the last three years (from 59,265 in 2010 to 76,511 in 2012).

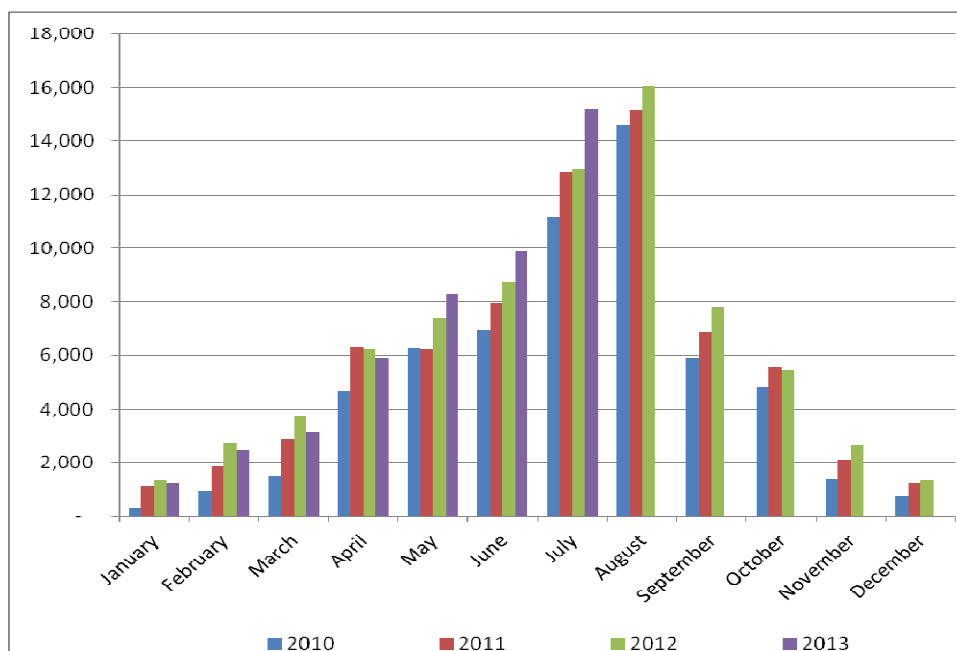
**Table 2.1: Visitor Numbers 2010 - 2013 (Jan-July)**

	2010	2011	2012	2013
January	309	1,122	1,360	1,276
February	902	1,845	2,726	2,447
March	1,515	2,918	3,754	3,147
April	4,646	6,289	6,227	5,907
May	6,233	6,225	7,402	8,310
June	6947	7,955	8,739	9,884
July	11,185	12,857	12,977	15,183
August	14,635	15,147	16,052	
September	5,907	6,870	7,831	
October	4,830	5,564	5,431	
November	1,404	2,105	2,642	
December	752	1,277	1,370	
<b>Total</b>	<b>59,265</b>	<b>70,174</b>	<b>76,511</b>	<b>46,154</b>

Source: Dunecht Estates

It is also worth noting that the visitor numbers increased from 34,610 in 2008; this is attributed largely to the extended opening hours whilst the recent increase between 2010 and 2012 was attributed to greater marketing efforts.

**Figure 2.1: Visitor Numbers 2010 - 2013 (Jan-July)**



Source: Dunecht Estates

## 2.4 Stonehaven

### 2.4.1 The Town

Stonehaven is 15 miles south of the City of Aberdeen in a sheltered position on Stonehaven Bay between the Carron Water and the Cowie Water. Stonehaven lies adjacent to a deeply indented bay surrounded on three sides by higher land between Downie Point and Garron Point. The harbour, consisting of two basins, became an important centre of the 19th century herring trade; the harbour is bordered on the north by Bellman's Head and at the south by Downie Point.

Historically the chief commerce of Stonehaven lay in fishing. However, today the town's primary industries are marine services and tourism, with the long beach facing the North Sea with large cliffs at either end sheltering small rock pools and inlets being a key feature.

### 2.4.2 Tourism Offer

Stonehaven has a wide array of offerings for the visitor; these include, but are not limited to:

- Dunnottar Castle: a dramatic and evocative ruin, two miles south of Stonehaven, and open all year round;
- Stonehaven Open Air Pool: the UK's only art deco, heated Olympic sized, fully filtrated sea water, open air swimming pool. It is an STB 4-star visitor attraction open from the first Sunday in June to the end of September each year;
- The Harbour: a picturesque harbour site with inns with real ale and accommodation, restaurants and a gift shop; and
- The Tolbooth Museum: a local history museum run by a group of volunteers from Stonehaven Town Partnership, Stonehaven and District Community Council and the local heritage society.

## 2.5 The Previous Economic Study

### 2.5.1 Background

In 2012 the Stonehaven Town Partnership commissioned an initial appraisal of the economic impacts associated with the continued closure of the Bervie Braes for all vehicular access. The aim of this study was to provide an independent appraisal of the scope and likely scale of the economic impacts associated with the continued closure of the Bervie Braes road. The assessment focused on the tourism related impacts of the closure as these were understood to be the main concern of local businesses. The analysis was based on:

- a review of economic, tourism and transport policies;
- an overview of the economy and visitor market;
- an appraisal of the socio-economic benefits associated with the development;
- a review of secondary information;
- a survey of local businesses; and

- consultations with Dunecht Estates and incoming tour operators.

## 2.5.2 Socio-economic Impact

In summary the socio-economic impact assessment identified that:

- Dunnottar Castle witnessed significant increases in visitor numbers between 2010 and 2012 - from 59,265 to 76,511, and was expecting further growth in 2013;
- Dunnottar Castle attracts a sizeable proportion of international visitors (39%), and non-local visitors make up 70% of the total;
- a survey of 30 accommodation providers attracted responses from 19 - a response rate of 63%. The confidence interval - a measure of robustness was +/-13.85% - the ideal for surveys of this type is no more than +/-5%<sup>2</sup>, so the reported results are less reliable than the ideal;
- the accommodation providers; survey results were as follows:
  - 16 respondents felt that the closure had had a detrimental impact on their business, with the majority of the responding firms feeling that the closure of the Bervie Braes was having a 'significant' detrimental impact. This detrimental effect was not however quantified in terms of a reduction in occupancy rates or a financial loss
  - 17 respondents felt that the continued closure of the Bervie Braes was having a detrimental impact on the Stonehaven economy - again this loss was not quantified;
- a survey of 75 "other" businesses" attracted 14 responses, a response rate of 19%, and a confidence interval of 23.78%. A significant proportion of the respondents - around half - were companies that were unlikely to benefit from tourism expenditure, and included cleaning and property maintenance, photography, and professional services; and
- the "other" businesses survey reported:
  - a split as to whether the closure of the Bervie Braes had a detrimental impact on their business - 50% felt it had and 50% said that there had been no detrimental impact
  - the majority of the responding firms who said the closure was impacting on their business reported that it was having a 'significant' detrimental impact on their business - this detrimental impact was not however quantified in terms of reduced sales income
  - all respondents felt that the continued closure of the Bervie Braes was having a detrimental impact on the Stonehaven economy- again this loss was not quantified.

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<sup>2</sup> The confidence interval is a measure of robustness or accuracy of a survey's results. The confidence interval is the figure usually seen in opinion polls which are often expressed as +3%. This tells us that if the sample answered in a given way, then if you had asked everyone in the population, the answer would fall within the parameters set by the confidence interval (e.g. for a confidence interval of 3, results would be +3%).

## 2.5.3 The Economic Prize

The *economic prize* appears in the final few paragraphs of the report, and it is not clear how this relates to the closure of the Bervie Braes. The report's estimate of the *economic prize* is based on the number of non-local visitors to Dunnottar Castle (53,000) and spend per trip of visitors to Aberdeenshire (£175).

## 2.5.4 An Assessment

The spend by visitors to Dunnottar Castle is not “lost” to the local economy as the report claims. The visitors will spend money in Stonehaven and the surrounding area, other parts of Aberdeenshire, and elsewhere in Scotland. The report implies that all the visitors will leave Dunnottar Castle without visiting Stonehaven; this is not supported by the results from the business surveys, both of which claim only that visitor numbers from the Castle to Stonehaven fell as a result of the closure of the Bervie Braes. The *economic prize* “lost” to the Stonehaven and surrounding area economy will be, if there is any loss, significantly lower than the £9.3m estimated in the report commissioned by the STP.

The STP study does however recognise its own short-comings, and highlighted that whilst the scope of the economic impact had been calculated, the precise value of economic impact had not. It recognised that a visitor survey, which would identify spend actually made in the Stonehaven and surrounding area's economy, and a fully compliant economic impact assessment was therefore required.

## 3. Consultations

### 3.1 Introduction

To set the quantitative economic impact assessment in context we conducted a consultation programme with a small number of key stakeholders, Aberdeenshire Council officials, and Dunecht Estate who operate Dunnottar Castle.

The consultation programme provided us with a detailed understanding of the views and insights of:

- industry stakeholders<sup>3</sup>:
  - the importance of Dunnottar Castle to the Stonehaven and local area tourism sector
  - the impact that the closure of Bervie Braes Road had on the tourism sector:
    - visitor numbers
    - tourism revenues
    - size of the local tourism sector;
- Aberdeenshire Council road officials:
  - costs of reopening the Bervie Braes Road
  - ongoing maintenance costs of the Road
  - rationale for April to October openings
  - costs associated with all year round opening
  - traffic flows; and
- Dunecht Estate:
  - visitor numbers - pre and post road closures
  - nature of the visitors -origin, average spend on site
  - impact of road closure on revenues and visitor numbers.

The text presented here sets out the views, opinions and perceptions of the consultees - as with all consultations, what individuals think is the case may not be so, and their comments should therefore be read in that light.

### 3.2 Industry Stakeholders

#### 3.2.1 Dunnottar Castle

All consultees recognised the importance of Dunnottar Castle to Stonehaven's tourism industry. It is seen as the area's main attraction and the key to drawing visitors to the local area.

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<sup>3</sup> Discussions were held with Aberdeenshire Council (Area Office/Business Development); ACSEF Area Tourism Partnership; Scottish Enterprise; Stonehaven Business Association/Stonehaven Tourism Group; Stonehaven & District Community Council; Stonehaven Towns Partnership; and Stonehaven Visitor Information Centre

The town and the tourism sector had been adversely affected by recent events - the economic crisis that had impacted on the world economy, but more locally the impact of the weather resulting in the town being flooded. Although evident before the economic downturn, the recession exacerbated the trend of the closure of local hotels, and the flooding of the town had led other businesses to cease trading.

Dunnottar Castle's recent high profile is seen as having been important in bringing tourists to the area. It attracts a significant proportion of overseas visitors who are more likely to visit and stay in the town, spending tourist pounds that provide a boost to the local economy.

### 3.2.2 Bervie Braes

The Bervie Braes was seen by most of the stakeholders as being an important route from the Castle into the town. They see the Bervie Braes as a shorter and a far more convenient route into the town than the alternative routes via the A90/A92 - vehicles turning left out of the car park are more likely to journey south to Montrose/Arbroath or north to Aberdeen than take the longer route into Stonehaven.

The stakeholders were unable to quantify whether the closure of the Bervie Braes had led to an economic loss to Stonehaven's tourism sector, although anecdotally there was a majority view that it had led to a reduction of those visitors to the Castle subsequently visiting Stonehaven. Those representing B&Bs and the tourism sector suggested that occupancy rates had fallen since the Bervie Braes were closed, although there was recognition that there were others factors that could be at play here - the impact of the global recession, the floods which affected the town, and poor weather.

There was a general feeling that since the re-opening of the Bervie Braes the number of tourists in the town had increased. **Table 3.1** highlights the increase in the number of enquiries to the Stonehaven Visitor Information Centre (VIC).

**Table 3.1: Visitor Enquiries**

Year	Numbers To Date Since March (Inc. First Week Of August)	April	May	June	July
2011	8,001	1,146	1,553	1,789	2,774
2012	7,525	1,025	1,300	1,773	2,761
2013	7,883	883 <sup>4</sup>	1,346	1,761	3,228

Source: Stonehaven VIC

However, there was also a recognition that other factors could also be at play here - in particular the running of the Queen Elizabeth Caravan Park by the Caravan Club which has seen a significant increase in visitor numbers. In addition, the summer's good weather was also felt to have brought additional visitors into the town.

Although all welcomed the re-opening of the Bervie Braes a number of the locally based stakeholders expressed some concerns. These related to:

<sup>4</sup> These lower than normal visitors figures are probably due to two of factors: bad weather (Stonehaven suffered from snow, high winds and rain in April 2013); and Easter being early in 2013 (in 2013 Easter fell in March, whereas in 2012 and 2011 it fell in April).

- the one-way nature of the road - it was felt by the stakeholders that there was sufficient room for a two lane road whilst still retaining the cycle/pedestrian route;
- the narrowness of the road - it is currently 2.75m, and some stakeholders felt that a 3m road would be more beneficial and safer for drivers, enabling them to view the vista whilst negotiating the drive into Stonehaven. Some stakeholders feel that the current width prevents this;
- the road only being open for 6 months. There was a feeling that all year round opening would be of significant benefit as it would help to extend the tourism season in the town pre and post closure. It was hoped that if there are no problems with landslips in the 2013 winter that Aberdeenshire Council would consider opening the road all year round; and
- the colour of the barriers. The visual impact of the red/white barriers is quite stark and highly visible; stakeholders would prefer that the barriers blended in with the hillside.

## 3.3 Aberdeenshire Council - Roads Service

### 3.3.1 Costs of Reopening the Bervie Braes Road

Embankment stabilisation works on the lower slopes have cost some £3m, and a further £300,000 of spend has been committed on temporary measures to re-open the road to its improved and safer state. A significant part of this £300,000 has still to be spent, but it is expected that the budget will be exhausted once the road is closed in October and the additional work is completed. A permanent scheme to stabilise the remainder of the lower and the whole of the upper embankment would cost around £3 million. Minor improvements to the road surface plus engineering fees are likely to add approximately a further £500,000, suggesting a total estimated cost of £3.5million.

### 3.3.2 Ongoing Maintenance Costs of the Road

Discussions suggest that the costs of maintaining the Bervie Braes will on average be £5,000 per annum at current rates. These costs will cover items such as:

- resurfacing on an 80 year cycle;
- surface dressing every 10 years; and
- winter and drainage maintenance annually.

### 3.3.3 Rationale for April to October openings

The upper slope and an untreated section of the lower slope remain unstable and therefore there is a risk of further landslips. The peak visitor period for the Castle coincides with the lower level of risk and that the peak period for risk through the autumn and winter months coincides with the lower level of visitors to the Castle. Aberdeenshire Council therefore decided that, to minimise the risk to road users, it would close the road from the end of October to the beginning of April. Dunnottar Castle is less busy during this period. A further consideration is that Aberdeenshire Council has still to complete some stabilisation work as part of the £300,000 scheme, and this will require a road closure; the seasonal closure of the road will provide an opportunity for it to undertake this work.

## 3.3.4 Costs Associated With All Year Round Opening

Extending the existing temporary arrangements to an all year round opening would require increased monitoring of slope behaviour over the winter period due to the increased risk to road users of slippage. To do this would put pressure on staff resources within Aberdeenshire Council’s Road Service. This is being considered internally but, if deemed necessary, would involve the installation of additional monitoring devices and the retention of geotechnical specialists to advise on action.

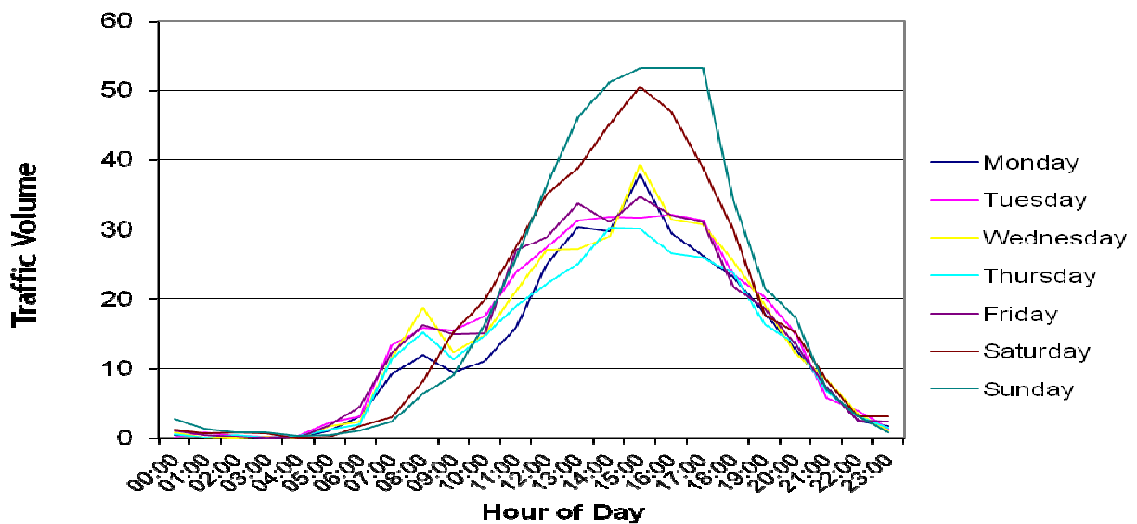
An alternative approach would be for the Council to accept that the risk is greater in winter time and communicate this to the public, and continue as for summer opening. If the permanent repairs were completed, no special costs other than the routine maintenance costs given in 3.3.2 above would apply.

## 3.3.5 Traffic Flows

Aberdeenshire Council has installed automated traffic counters to measure traffic flows down the Bervie Braes. To date<sup>5</sup> the 7 day average over a 24 hours period was 420 vehicles, with a peak traffic flow in any given 24 hour period of 540 vehicles.

However, not all of these trips down the Bervie Braes can be attributed to tourists, as the road is used by local people as a short cut into the town. As illustrated in **Figure 3.1** traffic flows build throughout the day and peaks between 3pm and 6pm, which is suggestive of use by local people - parents bringing children back from school and workers coming home from work.

**Figure 3.1: Bervie Brae Traffic Flow Averages: End July - Mid September 2013**



<sup>5</sup> 18 August 2013.

## 3.4 Dunecht Estate

### Visitor Numbers

As illustrated in **Table 2.1/Figure 2.1** paying visitor numbers have increased steadily over the recent past. The Estate has, over the past few years, undertaken a number of steps aimed at increasing visitor numbers, including:

- increasing its profile through revamping its marketing activity, which has included an enhanced web presence;
- utilising social media platforms such as Facebook;
- changes in the management structure; and
- an increase in opening hours - the Castle is now open all year round, although opening hours in the winter are slightly shorter.

The perception is that these activities are beginning to have an impact, with visitor numbers having increased by more than 100% since 2008.

The Castle is almost at capacity in terms of visitor numbers relative to current staffing levels, which have doubled over the recent past, albeit from 1.5 to 3 full time posts.

The Castle has won a number of awards and has featured in major films which have also increased its profile leading to increased visitor numbers, including:

- the location for Shakespeare's Hamlet starring Mel Gibson and directed by Franco Zeffirelli;
- Scotland's entry to the 8th Wonder of the World Competition - May 2013;
- awarded a Certificate of Excellence from Trip Advisor placing it in the top-performing 10% of all businesses worldwide on TripAdvisor - May 2013; and
- helped inspire Disney-Pixar's Brave - 2012.

### Nature of the Visitors

The Castle attracts a significant proportion of overseas visitors, in part drawn by the Castle featuring in films, but also as a result of the enhanced marketing activity.

Visitors to the Castle spend little during their visit beyond the admission ticket - £6 per adult, £2 per child - although many visitors simply take photographs without actually entering the Castle. A key factor here is that there is little for visitors to spend their money on; there is a picnic van open during the high season that sells drinks and snacks. The Estate estimates that visitors spend an average of £1.40, which is below the average for visitor attractions in Aberdeen and Grampian of around £5<sup>6</sup>.

### Impact of Road Closure

The closure and subsequent re-opening of the Bervie Braes is not seen as having had any impact on visitor numbers to the Castle.

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<sup>6</sup> VisitScotland (2010) - The 2009 Visitor Attraction Monitor - the latest data available.

However, there was a perception that when leaving the Castle the number of visitors who then ventured into Stonehaven had declined, although the Estate was unable to quantify this. This view was based on the perception that vehicles turning left out of the car park are more likely to journey south to Montrose/Arbroath or north to Aberdeen than take the longer route into Stonehaven.

The Estate is keen to cooperate with town centre businesses to encourage its visitors to turn right out of the car park now that the road into Stonehaven has re-opened. It stocks leaflets from the town's visitor attractions, and there is signage highlighting Stonehaven's tourism offering, targeted at visitors returning from having visited the Castle.

## 4. The Visitor Survey

### 4.1 Introduction

This Chapter presents an analysis of the visitor survey conducted by IBP Strategy and Research at Dunnottar Castle during August 2013. A total of **404** interviews were completed.

### 4.2 Background to the Survey

A face-to-face survey of visitors to Dunnottar Castle was conducted (on the basis of a random sample) and data was collected from **404** individuals during August 2013. The survey asked a series of questions to elicit information on:

- normal residence of the visitor;
- whether they had visited Stonehaven and surrounding area or Scotland before;
- size of their party;
- whether they had visited Dunnottar Castle before (and when), and if they were a paid visitor;
- importance of Dunnottar Castle in their decision to visit Stonehaven and surrounding area;
- what they would have done had they not visited Dunnottar Castle;
- how they have travelled to Dunnottar Castle;
- knowledge of the previous closure of the Bervie Braes, and whether it impacted on previous visits;
- whether re-opening of the Bervie Braes has impacted on their decision to visit Dunnottar Castle;
- whether staying overnight in Stonehaven and surrounding , and if so how many nights and in what type of accommodation;
- expenditure on accommodation and other items during their visit; and
- how they rated their visit to Stonehaven and surrounding area, and Scotland.

Although the survey did not explicitly ask whether a tourist had subsequently visited Stonehaven and the surrounding area, answers to the expenditure question highlighted that 90% did so and spent money in the Stonehaven and surrounding economy.

We estimate, based on the growth in number of paying visitors to the Castle over the period 2010 to 2013 (first 6 months), and our survey results identifying the number on non-paying visitors, that around 104,000 people will visit the Castle in 2013 - paying and non-paying. The survey of the 404 visitors therefore attracts a confidence interval of  $\pm 4.87\%$  - this suggests that the survey results are very robust. This means that if the survey results say that 50% of the sample answered “yes” to a question, then when the answer is grossed up to the population as a whole, the true answer will lie somewhere between 45.13% and 54.87%.

### 4.3 Visitor Profile

The age profile of the visitors is shown in Table 4.1. The survey sample consisted of 50% male and 50% female respondents.

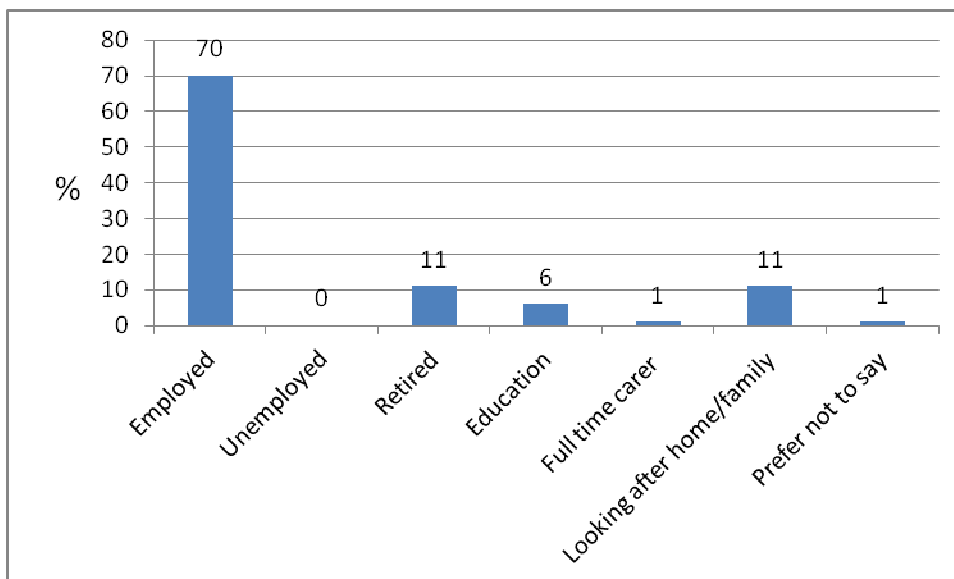
Table 4.1: Respondent Age Groups

Age Range	N°	%
18-19	3	1%
20-24	34	8%
25-34	54	13%
35-44	92	26%
45-54	107	23%
55-64	80	20%
65+	33	8%
Prefer not to say	1	<1%
<b>Total</b>		<b>100%</b>

The survey data highlights that over three quarters of visitors were aged over 35 years.

Figure 4.1 illustrates the employment status of the sample.

Figure 4.1: Employment Status of the Sample



Most of the sample is economically active, with 70% of respondents in full, part-time or self employment, with 11% of respondents being retired. The economically active have a higher propensity to spend than those who are economically inactive.

Based on survey responses to questions about the occupation and industry of the chief wage earner in the interviewee’s immediate family, the following social class categorisation was made<sup>7</sup>.

<sup>7</sup> These social class classifications are from the Registrar General’s Social Class categories, taken from Census of Population. They exclude 3 individuals whose answer prevented us from making a judgement.

- 48% belonged to the upper middle/middle class group (AB) e.g. higher or intermediate managerial or professional;
- 29% fell into the lower middle class group (C1) e.g. junior managerial, supervisory or clerical;
- 16% were identified as skilled working class (C2) e.g. skilled manual workers;
- 6% were felt to be working class (D) e.g. semi and unskilled manual workers; and
- <1% fell into the lowest level of subsistence group (E) e.g. state pensioners, casual or lowest grade workers.

The survey suggests that the Castle draws its visitors from the higher social groups as 77% were identified as middle class - upper and lower.

Table 4.2 illustrates the ethnic background of the sample.

**Table 4.2: Ethnic Background**

	N <sup>o</sup>	%
White - Scottish	85	21
White - British	82	20
White - Other	175	43
White - Irish	15	4
Asian - Indian	4	1
Asian - Chinese	11	3
Asian - Pakistan	5	1
Asian - Other	6	1
Black - African	7	2
Black - Caribbean	4	1
Mixed - White and Black African	4	1
Mixed - White and Black Caribbean	1	1
Mixed - White and Asian	2	1
Other	1	<1%
Prefer not to say	2	<1%
<b>Total</b>	<b>404</b>	<b>100%</b>

The survey suggests that the majority of the visitors were of White Origin (88%) and predominantly White - Other (43%).

Table 4.3 reports the normal place of residence of the sample<sup>8</sup>. This data demonstrates the extent to which the Castle attracts visitors from outwith the local area; three-quarters from outwith Scotland, and half from outwith the UK.

**Table 4.3: Usual Place of Residence**

Origin	N <sup>o</sup>	%
Elsewhere in Aberdeenshire/Aberdeen City	34	8%
Elsewhere in Scotland	55	14%
Elsewhere in UK -	105	26%
Outside the UK	210	52%
<b>Total</b>	<b>404</b>	<b>100%</b>

<sup>8</sup> Those approached who lived locally were excluded from the survey.

Table 4.4 highlights the origin of the overseas visitors with there being a significant number of visitors from continental Europe in particular.

**Table 4.4: The Origin Of The Overseas Visitors**

Origin	N°
Germany	37
France	32
Italy	22
Spain	22
USA	13
Holland	11
Czech Republic	9
Canada	7
Eire	6
Austria	5
Japan	4
New Zealand	4
Sweden	4
Australia	3
Denmark	3
Luxembourg	3
Switzerland	3
Hong Kong	2
Norway	2
Slovakia	2
Belgium	1
Cambodia	1
China	1
Cyprus	1
Finland	1
Greece	1
Iceland	1
India	1
Kazakhstan	1
Malta	1
Northern Ireland	1
Portugal	1
South Africa	1
<b>Total</b>	<b>210</b>

Those surveyed were asked how many individuals were in their immediate party including themselves and the results are shown in Table 4.5.

**Table 4.5: Size of Visiting Group**

	N°
Total number of adult males	478
Total number of adult females	496
Total number children (aged under 16)	205
<b>Total</b>	<b>1,179</b>

Those surveyed were part of a wider visiting party totalling 1,179 - of which 478 were adult males, 496 adult females, and 205 children.

Of those who normally reside outside Scotland (314 respondents) 29% have never visited Scotland before, and of those who normally reside outside Stonehaven and the surrounding area (370 respondents), 58% have never visited the local area before.

## 4.4 The Visit to the Castle

### Whether Paid for Visit

Discussions with Dunecht Estate highlighted that many who visit the Castle do so simply to take a photograph and do not therefore pay the admission fee. Almost three-quarters (73%) of those surveyed did actually venture inside the Castle, and therefore were paid visitors to the Castle.

### Previous Visits

When questioned as to previous visits to Dunnottar Castle only 24% of respondents (96 visitors) had previously visited Dunnottar Castle. **Table 4.6** presents details of their previous visits. It shows that of those who had visited the Castle before over half had done so whilst the Bervie Braes were closed.

**Table 4.6: Previous Visits to Dunnottar Castle**

	N <sup>o</sup>	%
Earlier in 2013	7	7%
In 2012	18	19%
In 2011	22	23%
In 2010	29	30%
In 2009	10	10%
In 2008 or earlier	50	52%

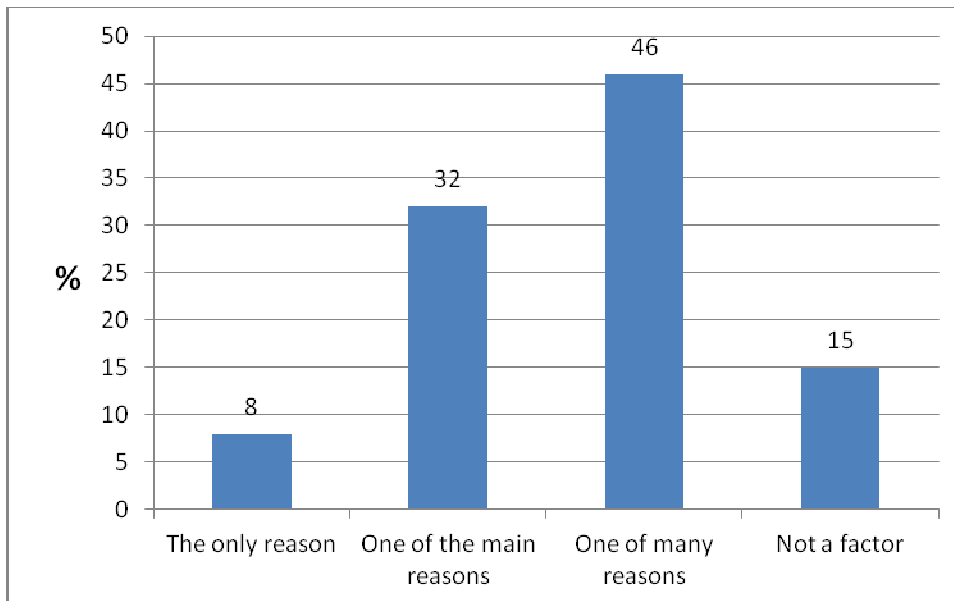
NB: multiple responses allowed

### Counterfactual

**Figure 4.2** examines the extent to which Dunnottar Castle was an important factor in respondents' decisions to visit the Stonehaven and surrounding area. It shows that the Castle was not an important factor in their decision to visit Stonehaven and surrounding area that day, as 60% of visitors said that it was not a factor or one of many reasons for visiting. Only 8% of visitors said that seeing the Castle was their only reason for being in Stonehaven and surrounding area that day.

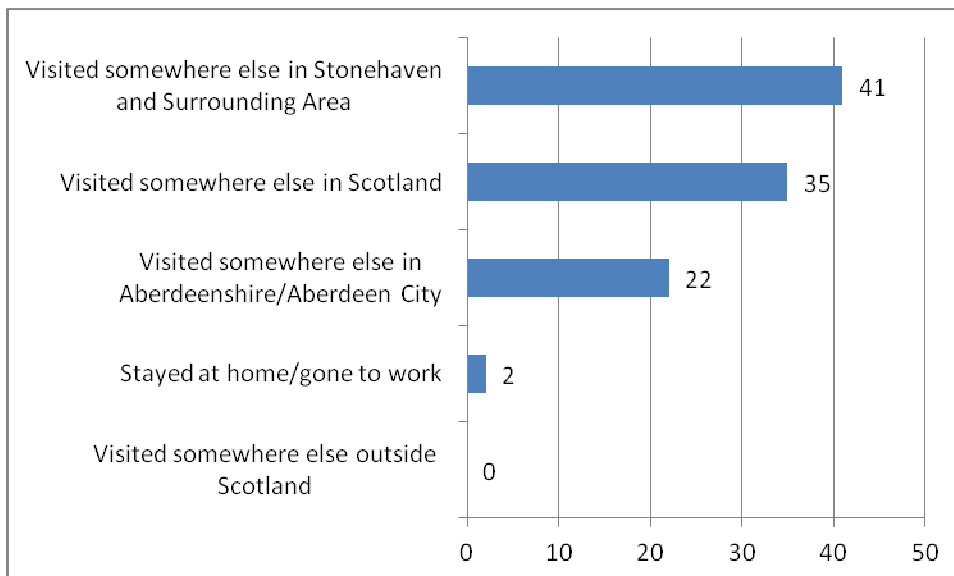
These findings contrast with the views expressed by the stakeholders during the consultation programme who viewed the Castle as being key to attracting visitors to Stonehaven and the surrounding area.

**Figure 4.2: Importance of Dunnottar Castle in Decision to Visit Stonehaven and Surrounding Area**



Respondents were then asked what they would have done instead if they had not visited Dunnottar Castle that day. **Figure 4.3** presents their answers.

**Figure 4.3: What Would Have Done Instead?**



Over 40% of respondents said that had they not visited the Castle they would have visited somewhere else in the Stonehaven and surrounding area and 22% would have visited somewhere else in Aberdeen City/Shire.

**Figures 4.2 and 4.3** highlight that whilst the Castle is an important visitor attraction for Stonehaven and surrounding area, the local area has other attractions that bring visitors to the local area.

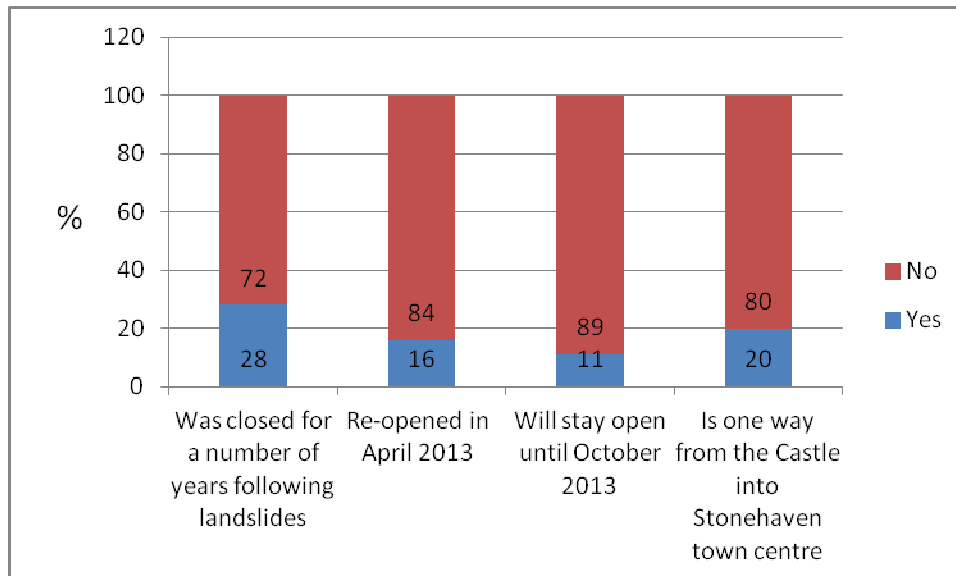
## How Arrived at the Castle

When asked how they arrived at the Castle, almost all (93%) reported that they came by car or motor bike to the Castle car park. Less than 2% reported walking up the Bervie Braes from Stonehaven town centre.

## Impact of Closing & Re-opening the Bervie Braes

As illustrated in **Figure 4.4** most visitors were unaware of the closure and re-opening of the Bervie Braes.

**Figure 4.4: Knowledge of Closure/Re-opening of the Bervie Braes**



In all areas of questioning, three quarters or more were unaware of the events surrounding the closing and subsequent re-opening of the Bervie Braes.

It is therefore unsurprising that the closure of the Bervie Braes had no, or very limited impact on visits to the Castle.

**Table 4.7: Impact of the Closure of the Bervie Braes**

	Number of Respondents	
	Yes	No
It deterred me from visiting	0	404
It reduced the number of times I visited	2	402
It had no impact on the number of visits	401	3
I had no plans to visit when road was closed	403	1

The re-opening of Bervie Braes in April 2013 is not expected to have any impact on visits to the Castle, as illustrated in **Table 4.8**.

**Table 4.8: Impact of the Re-Opening of the Bervie Braes**

	Number of Respondents	
	Yes	No
It encouraged me to visit today	0	404
It will encourage me to visit more often	7	397
It will have no impact on the number of visits	403	1

## 4.5 Accommodation & Expenditure

### Accommodation

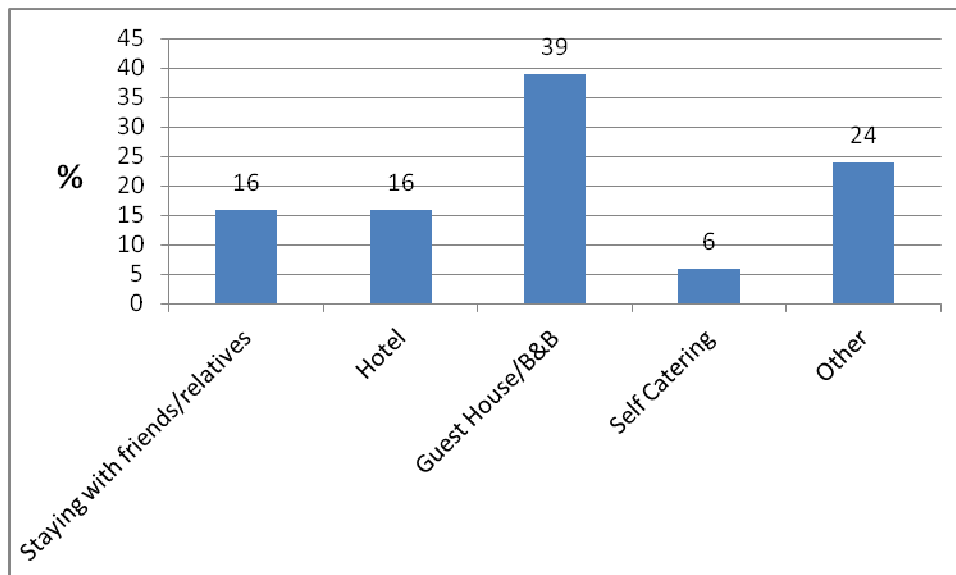
Most of those responding to the survey (83%) were spending a night away from home as part of their visit to Dunnottar Caste and the Stonehaven and surrounding area. **Table 4.9** highlights where the visitors spent these nights. It shows that Stonehaven and surrounding area benefited most from Castle visitors' overnight stay, with length of stay varying from 1 night to 14 nights.

**Table 4.9: Nights Away from Home to Visit the Castle**

	Average Number of Nights
Stonehaven and surrounding area	1.7
Aberdeenshire/Aberdeen City	0.6
Elsewhere in Scotland	0.2

**Figure 4.4** illustrates the most common types of accommodation used by those visitors who had at least one night away from home as part of their visit to the Castle.

**Figure 4.4: Types of Accommodation**



Guest House/B&Bs are by far the most important type of accommodation used by the overnight visitors, reflecting the stock of accommodation available to visitors. Those who responded “other” stayed in a caravan/motorvan or were camping.

There was a wide variation in the nightly expenditure on accommodation from £6 (camping) to £80 (hotel), reflecting the variety of accommodation available in the local area. The average spend on accommodation was £27; when those staying with friends and relatives who had no accommodation costs are included the average falls to £21. **Figure 4.5** presents more details.

**Figure 4.5: Accommodation Spend**



## Other Expenditure

Although the survey did not explicitly ask whether the tourist intended to subsequently visit Stonehaven, or had already done so, the expenditure data highlights that only 10% of the visitors did not spend or did not intend to spend any money in Stonehaven and surrounding area. We can therefore assume that at least 90% of the Castle visitors included a trip into Stonehaven and surrounding area as part of their visit.

**Table 4.10** shows average level of expenditure (excluding accommodation) whilst on the respondents trip by normal area of residence.

**Table 4.10: Average Expenditure**

Area Where Spent	Origin of Visitor			
	Aberdeen City/Shire	Rest of Scotland	Rest of UK	Overseas
Dunnottar Castle	£6.06	£6.89	£6.53	£6.77
Stonehaven Area	£16.76	£19.45	£20.33	£17.05
Aberdeen City/Shire	£0.88	£4.00	£18.47	£22.94
Scotland	£0.88	£4.27	£18.14	£22.94
<b>Total</b>	<b>£24.59</b>	<b>£34.62</b>	<b>£63.44</b>	<b>£68.99</b>

Table 4.10 shows that those from elsewhere in the UK and overseas had considerably higher expenditure levels than those from Scotland, at an average of £63 and £69 per day respectively. Visitors to the Castle subsequently spent an average of just over £18 per day in Stonehaven and surrounding area.

## 4.6 Quality of the Visit

In order to measure satisfaction, respondents were first asked to rate the quality of the various amenities available that they experienced in the Stonehaven and surrounding area during their visit. Table 4.11 details the responses.

Table 4.11: Rating of Amenities - the Stonehaven and Surrounding Area

Amenity	Very Good	Good	Neither Good Nor Poor	Poor	Very Poor	Not Experienced
Accommodation	33%	15%	-			51%
Restaurants	13%	48%	<1%			38%
Bars	11%	42%	2%			45%
Other Entertainment	8%	47%	5%			40%
Shopping	9%	72%	2%			17%
Internet Access	<1%	1%	-			99%
Overall	12%	72%	-			16%

Table 4.11 reveals high levels of visitor satisfaction with their consumption of the local area's amenities when visiting the Stonehaven and surrounding area - almost all who experienced an amenity rated each amenity as very good/good, with very few providing a poor/very poor ratings.

Although 90% of the respondents visited the Stonehaven and surrounding area and spent money, significant proportions of the respondents claim not to have experienced key tourism related amenities - accommodation, food and drink and other entertainment. The retail sector did benefit, with 83% of respondents visiting local shops.

Table 4.12: Rating of Amenities - Scotland

Amenity	Very Good	Good	Neither Good Nor Poor	Poor	Very Poor	Not Experienced
Accommodation	42%	29%				29%
Restaurants	20%	59%				21%
Bars	24%	50%				25%
Other Entertainment	38%	41%				21%
Shopping	39%	41%				20%
Internet Access	1%	1%				98%
Overall	37%	44%				20%

Table 4.12 highlights that respondents rated amenities higher in the rest of Scotland than in the Stonehaven and surrounding area; however closer inspection of the results suggest that this is due, at least in part, to a wider experience/consumption of the amenities during their trip to other parts of Scotland.

## 4.7 Return Visits

Visitors were asked how likely they were to revisit the Stonehaven and surrounding area and/or Scotland in the next 3 years. At least half of respondents are very likely/likely to make a return visit over the next three years, although more will return to Scotland than to Stonehaven/Kincardine & Mearns.

Table 4.12: Likelihood of Return Visits

	Stonehaven and Surrounding Area*	Scotland*
Very Likely	21%	28%
Likely	32%	34%
Not Sure	29%	30%
Unlikely	16%	7%
Definitely not visit	1%	1%

\* excludes those who live in the area

## 4.8 Overview

The key findings from the visitor survey were as follows:

- almost all (90%) of visitors to the Castle spent money in the Stonehaven and surrounding area after or before visiting the Castle;
- most respondents were on their first visit to Dunnottar Castle;
- most of those who had visited before did so before the Bervie Braes were closed;
- visiting Dunnottar Castle was not a major factor in the decision to visit the Stonehaven and surrounding area - 60% of the respondents said it was not a factor or one of many for the visit;
- if the Castle was not there 40% would have visited elsewhere in the Stonehaven and surrounding area, and 20% somewhere else in Aberdeen City and Shire;
- 75% or more were unaware of events surrounding the closure /re-opening of the Bervie Braes; and
- the closure of the Bervie Braes had no impact on visits to Dunnottar Castle; and
- almost all visitors to the Castle (83%) stayed overnight in the Stonehaven and surrounding area either before or after their visit, with average length of stay being 1.7 nights.

## 5. The Business Survey

### 5.1 Introduction

To complement the visitor survey we also surveyed local businesses. We used an online survey in the first instance, sent out on our behalf by the Stonehaven Business Association/Stonehaven Tourism Group, supplemented with a telephone follow-up aimed at boosting response rates.

The text presented here sets out the views, opinions and perceptions of local businesses - as with all surveys of this type, what individual businesses think is the case may not be so, and their comments should therefore be read in that light.

### 5.2 Background to the Survey

The survey was initially sent out to 60 Stonehaven Business Association/Stonehaven Tourism Group members, of which 20 were accommodation providers. After a two week period only 10 responses had been received and therefore a reminder email was sent out. Following on from this, telephone follow-up was conducted with non-respondents and other businesses whose details were identified from a range of publicly available sources. Responses were gathered from a total of 84 businesses, of which 19 were accommodation providers and 65 were “other businesses”.

The survey asked a series of questions to elicit information on:

- accommodation providers:
  - type of accommodation provider
  - when began trading
  - occupancy levels
  - impact of the closure of Bervie Braes on business performance
  - impact of the closure of Bervie Braes on the performance of the Stonehaven economy
  - impact of the re-opening of Bervie Braes on business performance
  - impact of the re-opening of Bervie Braes on the performance of the Stonehaven economy; and
- other businesses:
  - main business activity
  - when began trading
  - importance of tourism to business performance
  - impact of the closure of Bervie Braes on business performance
  - impact of the closure of Bervie Braes on the performance of the Stonehaven economy
  - impact of the re-opening of Bervie Braes on business performance
  - impact of the re-opening of Bervie Braes on the performance of the Stonehaven economy.

Not all of the questions were answered, and some questions were only partially answered; this is not untypical for an online survey. The previous study’s business surveys, which we briefly reviewed in Chapter 2, achieved responses from 19 accommodation providers and 14 other businesses, many of which would not benefit from the spend of tourists. Our survey achieved responses from 65 tourism related businesses - 19 accommodation providers, 27 retailers, 13 restaurant/bars and 4 leisure.

### 5.3 Accommodation Providers

#### Business Background

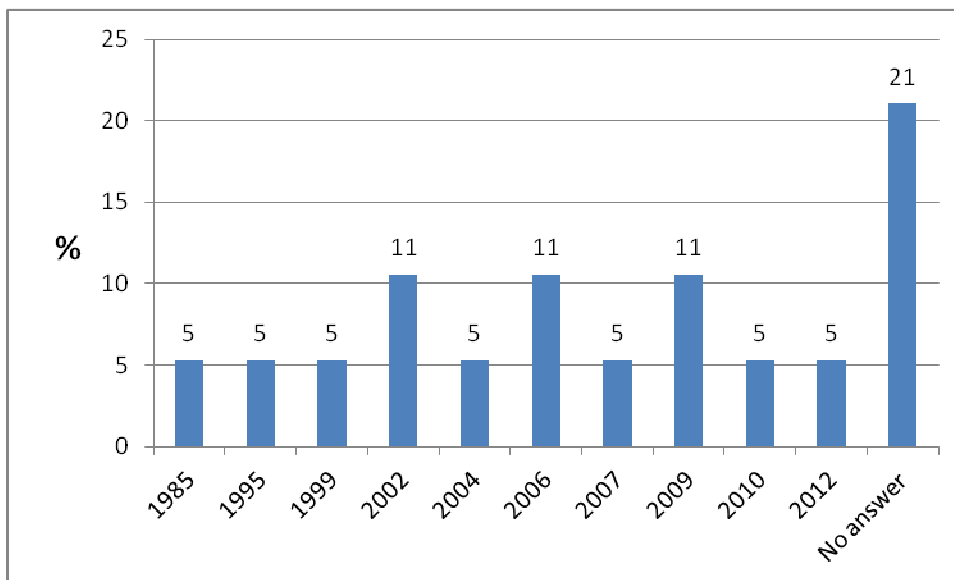
As illustrated in Table 5.1 the majority of respondents were B&B providers.

Table 5.1: Type of Accommodation Provided

Accommodation Type	%
Hotel	11%
B&B	58%
Guest House	5%
Serviced Apartments	1%
Holiday Flat	11%
Not Answered	11%
<b>Total</b>	<b>100%</b>

Typically the accommodation providers had been trading for several years prior to the closure of Bervie Braes; Figure 5.1 provides the full details.

Figure 5.1: When First Began Trading



#### Occupancy Rates

In Table 5.2 we present details of occupancy rates in a typical year. It shows high levels of occupancy in the traditional tourist season - April to the end of September. Over a typical year accommodation providers are operating significantly below capacity.

**Table 5.2: Typical Occupancy Rates**

	Occupancy Rate						
	0%-25%	26%-50%	51%-75%	76%-99%	Full	Not Open	No Answer
January - March	5%	21%	16%	26%			21%
April - June		11%	26%	37%	1%		21%
July - September			16%	47%	10%		21%
October - December		32%	16%	28%			21%
Overall		5%	42%	32%			21%

Table 5.3 shows the occupancy rates accommodation providers enjoyed during the period when the Bervie Braes were closed.

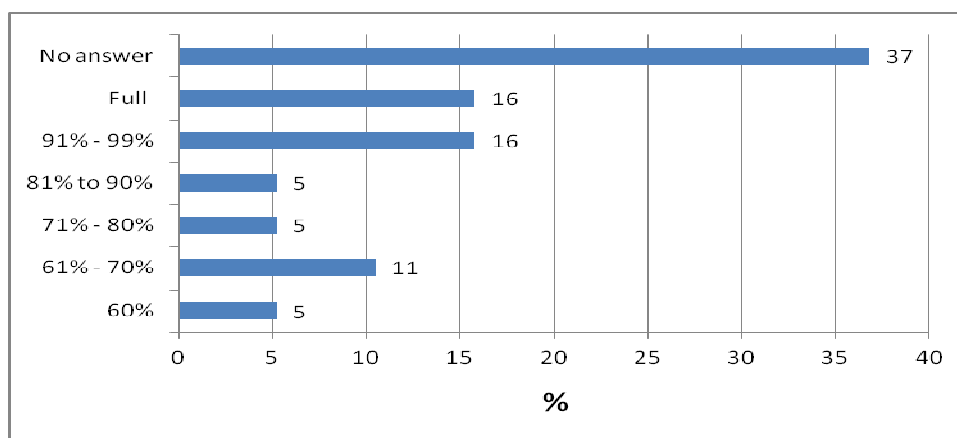
**Table 5.3: Occupancy Rates When Bervie Braes Were Closed**

	Occupancy Rate - Late 2009 - April 2013							
	0%-25%	26%-50%	51%-75%	76%-99%	Full	Don't Know	Closed	No Answer
January - March	11%	16%	5%	21%		5%	5%	37%
April - June	5%	16%	16%	16%	5%	5%		37%
July - September		5%	21%	21%	11%	5%		37%
October - December		32%	5%	21%		5%		37%
Overall		5%	26%	32%		5%		32%

Table 5.3 shows that since the Bervie Braes were closed occupancy rates have fallen, although some caution needs to be exercised as more than a third of accommodation providers did not answer this question. As highlighted during the consultation programme, there may be other factors at play here, and in particular the poor weather that Scotland has enjoyed during recent summers which will have deterred visitors to traditional seaside towns.

Figure 5.2 shows that since the Bervie Braes has re-opened occupancy rates have increased. However, this improvement may in part be explained, as highlighted during the consultation programme, by the very warm weather that Scotland has enjoyed during this summer which will have encouraged visitors to traditional seaside towns.

**Figure 5.2: Occupancy Rates Since Bervie Braes Re-Opened**



## Impact of the Closure of the Bervie Braes

Most accommodation providers felt that the closure of the Bervie Braes had an impact on the performance of their business, and for one in three this was a negative impact. A sizeable proportion, however, felt that the closure of the Bervie Braes had actually had a positive or no impact on the performance of their business. Table 5.4 provides the full details.

**Table 5.4: Impact of the Closure of the Bervie Braes**

Impact	%
Very positive	5%
Quite positive	5%
No impact	11%
Quite negative	21%
Very Negative	11%
Don't know	16%
No Answer	32%
<b>Total</b>	<b>100%</b>

When asked to elaborate on their answer, the typical responses were as follows:

- fewer tourists visit the town after visiting the Castle;
- tourists by-pass the town and go elsewhere; and
- fewer casual/impulse visitors seeking accommodation.

The closure of the Bervie Braes was not the only factor that has acted as a barrier to the growth of accommodation businesses in recent years. Other factors have included:

- the flooding - there was a perception that all businesses were flooded and that the town might still be negatively affected;
- closure of the larger hotels which hosted functions - this meant that business which benefited from the “knock on effects” of larger gatherings of people no longer did so; and
- anti-social behaviour by “boy racers”;
- general appearance of the town which some considered could be unappealing; and
- the economic climate.

Accommodation providers were also asked whether the closing of the Bervie Braes had impacted on the economy of Stonehaven and surrounding area more generally. Table 5.5 reports their responses.

**Table 5.5: Impact on the Stonehaven and Surrounding Area's Economy - Bervie Braes Closure** (multiple answers allowed)

Nature of the Impact	%
Fewer tourist/leisure visitors in the town centre	53%
Lower levels of spend by the visitors	32%
Tourists/leisure visitors spending less time in town centre	42%
Fewer overnight tourist/leisure visitors	42%
Other	11%

## Impact of the Re-Opening of the Bervie Braes

As illustrated in **Table 5.6** the re-opening of the Bervie Braes in April 2013 has had a positive impact for almost half of the accommodation providers.

**Table 5.6: Impact of the Re-Opening of the Bervie Braes**

Impact	%
Very positive	21%
Quite positive	26%
No impact	11%
Quite negative	-
Very Negative	-
Don't know	11%
No Answer	32%
<b>Total</b>	<b>100%</b>

When asked to elaborate on their answer, the typical responses were as follows:

- more speculative visitors seeking accommodation; and
- more tourists in the town.

The re-opening of the Bervie Braes was seen as having wider benefits to the economy of Stonehaven and surrounding area more generally. **Table 5.7** reports the nature of these benefits as seen by the accommodation providers.

**Table 5.7: Impact on the Stonehaven and Surrounding Area Economy - Bervie Braes Re-Opening** (multiple answers allowed)

Nature of the Impact	%s
More tourist/leisure visitors in the town centre	63%
Higher levels of spend by the visitors	26%
Tourists/leisure visitors spending more time in town centre	42%
More overnight tourist/leisure visitors	47%

## Other Comments

The survey provided the accommodation businesses with the opportunity to offer further comments/observations about the closure and reopening of the Bervie Braes. Typical observations provided the accommodation providers included:

- General observations:
  - the Bervie Braes is not just an attractive link between Dunnottar Castle to the town but also as a traffic link between the A92 and the town centre
  - the road provides a direct link between the Castle and the town, and better signage is required at the Castle
  - there are fewer hotels and B&Bs than previously, so some tourists may pass through rather than stop for one or more nights
  - it would be helpful to have more signage in languages other than English;
- The closure of Bervie Braes
  - tourists had to take a detour when travelling northbound to the town centre, which was an inconvenience and disruption for visitors
  - the diversion was too far for tourists with other attractions on their itinerary
  - the Council's attitude towards the closure was hard to understand as they seemed bent on closing the road and keeping it closed, regardless of public or expert opinion
  - a lack of understanding as to why it is only open during summer season; and
- The re-opening of Bervie Braes:
  - has led to an increase in the number of tourists in the town
  - would like to see it open all year round. If there is a lengthy rainy spell then a temporary closure could be put in place until any danger of slippage is checked
  - the design of the barriers are of concern for some accommodation providers. They feel that the:
    - lane is extremely narrow with a chicane that is new
    - a wider road would aid safer driving
    - the red and white stripe mars the slope and spoils the view on the Bervie Braes.

## Overview

The key findings from the accommodation provider survey were as follows:

- occupancy rates:
  - prior to the closure accommodation providers were already operating below capacity even during peak summer months
  - occupancy rates fell during the period when the Bervie Braes were closed
  - occupancy rates have increased significantly since the Bervie Braes re-opened
- the closure of the Bervie Braes was felt to have had a negative impact as it reduced the number of Castle visitors who went into the town centre;
- other factors were also at play - poor weather, impacts of the flooding, general economic climate following the recession; and
- the re-opening has been largely positive, although other factors such as the very good weather in the summer of 2013 have also had an impact.

## 5.4 Other Businesses

### Business Background

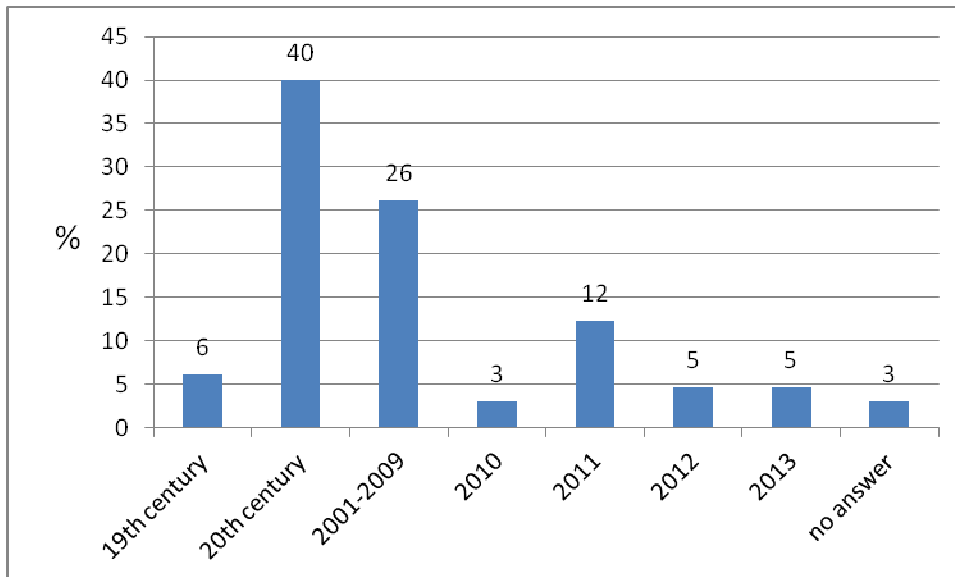
Table 5.8 highlights the main business activity of the 65 non-accommodation businesses who responded to the survey. It shows that retail and restaurant/bars dominate the responses - these businesses are more likely than others to benefit from tourist expenditure. Two-thirds of the respondents operate in the tourism related sector.

Table 5.8: Main Business Activity

Business Activity	%
Restaurant/Bar	20%
Retail	42%
Wholesale	2%
Construction	5%
Personal Services	12%
Business Services	12%
Leisure	6%
No Answer	2%
<b>Total</b>	<b>100%</b>

Many of the businesses responding to the survey were established long before the closure of the Bervie Braes; indeed 6% were founded in the 19<sup>th</sup> century, and 40% in the 20<sup>th</sup> Century. One in four had however begun trading after the closure of Bervie Braes. Figure 5.3 provides the full details.

Figure 5.3: When Began First Trading



The importance of the tourists/leisure visitors to the performance of the businesses varied, as illustrated in **Table 5.9**. For almost two-thirds of businesses tourist expenditure is very important/important to the success of their business throughout the year. Around two-thirds of those involved in the bar/restaurant trade said that the tourist trade was very important to their business all year round.

**Table 5.9: Importance of Tourists to the Business**

	%
Very important all year round	45%
Very important during high season	3%
Important all year round	17%
Important during high season	2%
Of minor importance	18%
Not important	12%
No Answer	3%
<b>Total</b>	<b>100%</b>

## Impact of the Closure of the Bervie Braes

More than 40% of businesses felt that the closure of the Bervie Braes had had a negative impact on the performance of their business - 34% quite negative and 9% negative. One in four businesses felt that the closure had had no impact on their business. Businesses not directly involved in tourism were more likely to say that their business had not been affected by the closure of Bervie Braes. **Table 5.10** provides the full details.

**Table 5.10: Impact of the Closure of the Bervie Braes**

Impact	%
No impact	25%
Quite negative	34%
Very Negative	9%
Don't know	28%
No Answer	5%
<b>Total</b>	<b>100%</b>

When asked to elaborate on their answer, the typical responses were as follows:

- the closure of the Bervie Braes reduces access to the town centre for Castle visitors;
- a noticeable drop off in tourist trade;
- less income of the tourist related businesses means that they have less to spend in the shops and other businesses in the town;
- fewer visitors in the town and therefore lower levels of spend; and
- easy for visitors to the Castle just to bypass the town.

The closure of the Bervie Braes was not the only factor that has acted as a barrier to the growth of Stonehaven businesses in recent years. Other factors have included:

- poor parking availability in the town centre - the car is the preferred choice of transport and if visitors cannot find a parking space they will drive on;
- the weather was poor during the summer months when the Bervie Braes were closed;
- the flooding - visitors are perhaps unaware of the progress that has been made, although there remains much to be done;
- the general economic climate meant that people had less money to spend; and
- poor marketing of Stonehaven and what it has to offer.

Other businesses were also asked whether the closing of the Bervie Braes had impacted on the economy of Stonehaven and surrounding area more generally. Table 5.11 reports their responses. The perceived lower level of visitors and lower levels of spending are seen as the key impacts on the wider economy resulting from the closure of the Bervie Braes. Less than one in four felt that there had been no impact.

**Table 5.11: Impact on the Stonehaven and Surrounding Area Economy - Bervie Brae Closure** (multiple answers allowed)

Nature of the Impact	%
Fewer tourist/leisure visitors in the town centre	65%
Lower levels of spend by the visitors	49%
Tourists/leisure visitors spending less time in town centre	52%
Fewer overnight tourist/leisure visitors	37%
Other	18%
No impact	23%

## Impact of the Re-Opening of the Bervie Braes

As illustrated in Table 5.12 the re-opening of the Bervie Braes in April 2013 is not perceived to have had a major impact on the performance of respondents' business performance. Only 9% report a very positive impact, although 28% report a quite positive impact. One in four reported no impact, and almost one in four do not know if the re-opening has had any impact.

**Table 5.12: Impact of the Re-Opening of the Bervie Braes**

Impact	%
Very positive	9%
Quite positive	28%
No impact	25%
Quite negative	8%
Very Negative	-
Don't know	23%
Not Answered	8%
<b>Total</b>	<b>100%</b>

When asked to elaborate on their answer, the typical responses were as follows:

- more visitors in the town, particularly overseas visitors;
- footfall up around the town centre and harbour areas; and
- the road provides a direct route into the town centre rather than them bypassing Stonehaven.

The re-opening of the Bervie Braes was seen as having wider benefits to the economy of Stonehaven and the surrounding area. **Table 5.13** reports the nature of these benefits as seen by the other businesses. The results mirror the qualitative views offered above - more visitors in the town.

**Table 5.13: Impact on the Stonehaven and Surrounding Area Economy - Bervie Brae Re-Opening** (multiple answers allowed)

Nature of the Impact	%s
More tourist/leisure visitors in the town centre	71%
Higher levels of spend by the visitors	43%
Tourists/leisure visitors spending more time in town centre	72%
More overnight tourist/leisure visitors	29%
Other impacts	6%
No impact	11%
Don't Know	2%

## Other Comments

The survey provided the other businesses with the opportunity to offer further comments/observation about the closure and reopening of the Bervie Braes. Typical observations of “other” businesses included:

- General observations:
  - the road needs to be continually monitored to ensure it remains open
  - the road must be kept open
  - it took far too long to make the repairs;
- The closure of Bervie Braes
  - don't understand why the road will be closed at the end of the summer season
  - closure had major negative impact on the town; and
- The re-opening of Bervie Braes:
  - the road needs to be open all year round
  - will benefit the whole town
  - disappointed with the finish - poor quality
  - barriers - the colour is awful
  - bollards are ugly - need to be better landscaping
  - very tight to drive down the Braes into the town.

## Overview

The key findings from the “other” businesses survey were as follows:

- most respondents have a long history of trading in Stonehaven;
- tourism expenditure is important to the performance of their business;
- the closure of the Bervie Braes had a significant negative impact on around one in three businesses, and no impact on one in four;
- the closure was perceived to have reduced visitor numbers in the town, thus a reduction in spending;
- other factors at play - the poor weather, the flooding, and the poor economic climate;
- the reopening has not had a major impact on business performance, although one in three have seen a significant impact; and
- the town has seen an increase in visitor numbers since the road opened, although there have been other factors such as the very good summer weather.

## 6. The Economic Impact Assessment

### 6.1 Approach to Measuring Economic Value/Impact

Economic value is traditionally associated with a monetary value and this is highlighted within the earlier study undertaken on behalf of the Stonehaven Towns Partnership. It uses visitor numbers to Dunnottar Castle, an estimate of the proportion who normally reside outwith the local area and secondary data on spend per trip to Aberdeenshire. As highlighted in **Chapter 2** the lack of a visitor survey means that the £9.3m estimate of economic value is likely to overstate the true economic value of the Castle to Stonehaven and the local area.

The consultation programme acknowledged that the figure of £9.3 million does overstate the true economic value of the Castle to Stonehaven and the local area. It was seen as a figure that represented the value of tourism from those visitors from outwith the area; there was not a belief that the full £9.3 million would find its way into the Stonehaven economy.

Our approach will focus on estimating the net additional economic value/impact of the visitors to the Castle to the economy of Stonehaven and surrounding area, and how the reopening of the Bervie Braes Road impacts on this, by taking into account concepts such as:

- **Gross Economic Value/Impact** - the total economic value/impact associated with the Castle/reopening of the Bervie Braes Road;
- **Non-additionality** - the proportion of total outputs/outcomes that would have been secured anyway for the Stonehaven and surrounding area from the visitors irrespective of Dunnottar Castle or the re-opening of the Bervie Braes;
- **Visitor Length of Stay** - the number of days/nights residing in the Stonehaven and surrounding area for the purpose of visiting tourism attractions;
- **Average Daily Expenditure** - the scale of expenditure associated with accommodation and visiting tourism attractions in the Stonehaven and surrounding area;
- **Multipliers** - further economic activity (e.g. jobs, expenditure or income) associated with additional income to those employed within the tourism (and other) sectors in the Stonehaven and surrounding area and Scotland; and
- **Gross Value Added** - provides a monetary value for the amount of goods and services that have been produced, less the cost of all inputs and raw materials that are directly attributable to that production. GVA is seen as a measure of wealth.

The economic value/impact assessment of the Castle, and specifically the reopening of the Bervie Braes Road, will highlight:

- the net additional expenditure from the visitors in the Stonehaven and surrounding area;
- the employment impacts associated with this expenditure;

- gross value added; and
- the impact that could arise from extending the period of road opening to cover the whole year.

## 6.2 Visitor Numbers

The number of paying visitors to Dunnottar Castle during the first seven months of 2013 was some 6.8% higher than for the same period in 2012. If this increase is carried forward to the end of 2013 then we estimate the total number of paying visitors in 2013 will be around 82,000; when we add in the non-paying visitors this would bring the total visitors in 2013 up to around 104,000, of which **73,000** will be from outwith the local area. The Castle is therefore an important attraction in the context of Stonehaven's tourism sector, and attracts a significant number of overseas visitors.

In assessing the economic impact of the re-opening of the Bervie Braes it could be argued that the calculation should be based on visitor numbers during the period when the road is closed, as the Stonehaven and surrounding area benefits from those visiting April to October as the road is open. We estimate that the number of paying visitors during the winter months when the road is closed will be 20,000; when we add in non-paying visitors this increases to around 25,500, of which **17,850** will be non-local.

Table 6.1 shows the visitor numbers, split by day and overnight, with 87% spending at least one night away from home to visit Dunnottar Castle and 13% being day visitors.

Table 6.1: Type of Visitor

Type of Visit	Full Year Visitors	Winter Visitors
Day Visitor	12,410	3,035
Overnight	60,590	14,815
<b>Total</b>	<b>73,000</b>	<b>17,850</b>

The pattern of visitor behaviour varies by origin and type of visit i.e. day and overnight. Therefore these effects have been analysed separately in order to derive the economic impact. Table 6.2 gives a breakdown of type of visitors by origin, with all day visitors being from elsewhere in Aberdeen City and Shire.

Table 6.2: Visitors by type and origin

Origin of Visitor	Full Year Visitors				Winter Visitors			
	Day		Overnight		Day		Overnight	
	No.	%	No.	%	No.	%	No.	%
Elsewhere City/Shire	5,336	43%	606	1%	1,305	43%	148	1%
Elsewhere in Scotland	7,074	57%	3,030	5%	1,730	57%	741	5%
Elsewhere in UK	-		18,782	31%	-		4,593	31%
Overseas	-		38,172	63%	-		9,333	63%
<b>Total</b>	<b>12,410</b>	<b>100%</b>	<b>60,590</b>	<b>100%</b>	<b>3,035</b>	<b>100%</b>	<b>14,815</b>	<b>100%</b>

## 6.3 Gross Expenditure

The level of expenditure by visitors to the Castle in the Stonehaven and surrounding area also varies by origin, and day and overnight visitors. The average daily expenditure is shown in **Table 6.3**.

**Table 6.3: Average Daily Expenditure**

Origin of Visitor	Day Visitors	Overnight Visitors
Elsewhere City/Shire	£16.67	£17.50
Elsewhere in Scotland	£18.08	£37.61
Elsewhere in UK	-	£37.61
Overseas	-	£38.95

Based on results from the visitor survey we assume that the average number of days visited by day visitors is 1, and the length of stay for overnight visitors to enable them to visit the Castle/the Stonehaven and surrounding area is 1.7 nights.

Gross expenditure impacts will be measured according to the following formulae:

$$GE = dv.ndv.vd + ov.l.nov$$

Where:

**GE**=gross expenditure

**Dv**=average daily expenditure of day visitors

**Ndv**=number of day visitors

**Vdn**=number of days visited

**Ov**=average daily expenditure of overnight visitors

**l**=average length of stay

**Nov**=number of overnight visitors

Applying the gross expenditure formula gives gross expenditure levels as detailed in **Table 6.4**.

**Table 6.4: Gross Spend**

	Gross Expenditure Full Year Visitors	Gross Expenditure Winter Visitors
Day Visitors	£216,849	£53,033
Overnight Visitors	£1,412,622	£345,443
<b>Total</b>	<b>£1,629,471</b>	<b>£398,476</b>

## 6.4 Non-additionality

For tourism impact studies non-additionality typically refers to the extent to which tourists would visit the Stonehaven and the surrounding area irrespective of the presence of Dunnottar Castle. Two approaches are considered based on a number of questions asked in the visitor survey:

- visitors were asked how important Dunnottar Castle was in their decision to visit the Stonehaven and surrounding area. The presence of Dunnottar Castle was the sole (8%) or main reason (32%) why they were in the Stonehaven and surrounding area. This means that for 60% of visitors the local area has attractions other than Dunnottar Castle that bring them to the Stonehaven and surrounding area. This suggests a non-additionality factor of 60%; and
- the survey also asked whether the closure/re-opening of the Bervie Braes had impacted on their decision to visit Dunnottar Castle or the Stonehaven and surrounding area. For almost all visitors (around 98%) the closure/re-opening of the Bervie Braes has had no impact on their decision to visit Dunnottar Castle and the Stonehaven and surrounding area. This suggest a non-additionality factor of 98%

If we apply both non-additionality factors this reduces gross expenditure as illustrated in Table 6.5.

**Table 6.5: Net Direct Expenditure**

	Full Year Visitors		Winter Visitors	
Gross Expenditure	£1,629,471		£398,476	
	60% non-additionality	98% non-additionality	60% non-additionality	98% non-additionality
Non-additional Expenditure	£977,683	£1,596,882	£239,086	£390,506
<b>Net Direct Expenditure</b>	<b>£651,789</b>	<b>£32,589</b>	<b>£159,390</b>	<b>£7,970</b>

It is clear from Table 6.5 that the choice on non-additionality factors has a significant impact in calculating net direct expenditure.

The lower level non-additionality factor (60%) gives net direct expenditure for the full year of visitors of £0.65m, and £0.16m for winter visitors. The higher level non-additionality factor (98%) gives net direct expenditure for the full year of visitors of £0.03m, and £0.008m for winter visitors.

There is no definitive guidance as to which is the most appropriate factor to utilise - were such guidance to exist we would have adopted only one measure.

## 6.5 Multipliers

The gross expenditure generated by the visitors will have had two types of wider impact on the economy:

- 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 and national economies; 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 and national economies.

The Scottish Tourism Multiplier Study (STMS)<sup>9</sup> provides standard supplier and income multipliers for the tourism sector. This estimates that the combined supplier and income multiplier for the Stonehaven and surrounding area of **1.32** at the local level; and **1.57** at the Scottish level.

## 6.6 Net Additional Expenditure

Applying the above multipliers gives net additional expenditure resulting from the visitors to Stonehaven/Kincardine & Mearns, as set out in **Table 6.6**.

**Table 6.6: Net Additional Expenditure**

Full Year Visitors				
	Stonehaven and Surrounding Area		Scotland	
	60% non-additionality	98% non-additionality	60% non-additionality	98% non-additionality
Net Direct Expenditure	£651,789	£32,589	£651,789	£32,589
Multipliers	1.32		1.57	
<b>Net Additional Expenditure</b>	<b>£860,361</b>	<b>£43,018</b>	<b>£1,023,308</b>	<b>£51,165</b>
Winter Visitors				
	Stonehaven and Surrounding Area		Scotland	
	60% non-additionality	98% non-additionality	60% non-additionality	98% non-additionality
Net Direct Expenditure	£159,390	£7,970	£159,390	£7,970
Multipliers	1.32		1.57	
<b>Net Additional Expenditure</b>	<b>£210,395</b>	<b>£10,520</b>	<b>£250,243</b>	<b>£12,512</b>

The economic impact of the spend of a full year of visitors to Dunnottar Castle in Stonehaven and Surrounding Area varies from **£0.86m to £0.04m** depending on the non-additionality factor used. Those who visit in the winter contribute between **£0.2m and £0.01m** to the local economy.

## 6.7 Net Additional Employment

This expenditure will support employment within the wider Stonehaven and surrounding area and Scottish economies. To calculate the jobs impact we have applied output: employment factors derived from the STMS of: £50,080 at the local level and £41,200 at the Scottish level.

Applying the output: employment factor to the net additional expenditure figures gives employment impacts generated by the visitors of:

- full year of visitors:
  - local level - varies from **17 FTES** to **0.9 FTES** depending on the non-additionality factor used
  - Scottish level - varies from **25 FTES** to **1.2 FTES** depending on the non-additionality factor used

<sup>9</sup> Surrey Research Group (1993), *Scottish Tourism: Multiplier Study*, Volumes 1-3, Report for the Scottish Office, HMSO.

- winter visitors:
  - local level - varies from **4 FTES** to **0.2 FTES** depending on the non-additionality factor used
  - Scottish level - varies from **6 FTES** to **0.3 FTES** depending on the non-additionality factor used.

## 6.8 Gross Value Added

Gross value added provides a monetary value for the amount of goods and services that have been produced, less the cost of all inputs and raw materials that are directly attributable to that production.

For the purpose of this impact assessment we apply GVA per employee ratios<sup>10</sup> of £34,794 at the Aberdeenshire level and £17,687 at the Scottish level, to give GVA levels of:

- full year of visitors:
  - local level - varies from **£591,498** to **£31,315** depending on the non-additionality factor used
  - Scottish level - varies from **£441,050** to **£21,170** depending on the non-additionality factor used
- winter visitors:
  - local level - varies from **£139,476** to **£6,596** depending on the non-additionality factor used
  - Scottish level - varies from **£105,852** to **£5,293** depending on the non-additionality factor used.

## 6.9 Overview

**Table 6.7** presents an overview of the economic impact of visitors to Dunnottar Castle and the wider Stonehaven and surrounding area.

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<sup>10</sup> Estimated from data obtained from Scottish Annual Business Statistics 2011 - the latest data available - and relates to accommodation *and food service activities* used as a proxy for tourism spend.

**Table 6.7: Economic Impact Summary**

<b>Full Year Visitors</b>				
	<b>Stonehaven and Surrounding Area</b>		<b>Scotland</b>	
	<b>60% non-additionality</b>	<b>98% non-additionality</b>	<b>60% non-additionality</b>	<b>98% non-additionality</b>
<b>Net Additional Expenditure</b>	<b>£0.86m</b>	<b>£0.04m</b>	<b>£1.0m</b>	<b>£0.05m</b>
<b>Employment Impacts</b>	<b>17 FTEs</b>	<b>0.9 FTEs</b>	<b>25 FTEs</b>	<b>1.2 FTEs</b>
<b>Gross Value Added</b>	<b>£0.6m</b>	<b>£0.03m</b>	<b>£0.4m</b>	<b>£0.02m</b>
<b>Winter Visitors</b>				
	<b>Stonehaven and Surrounding Area</b>		<b>Scotland</b>	
	<b>60% non-additionality</b>	<b>98% non-additionality</b>	<b>60% non-additionality</b>	<b>98% non-additionality</b>
<b>Net Additional Expenditure</b>	<b>£0.2m</b>	<b>£0.01m</b>	<b>£0.3m</b>	<b>£0.01m</b>
<b>Employment Impacts</b>	<b>4 FTEs</b>	<b>0.2 FTEs</b>	<b>6 FTEs</b>	<b>0.3 FTEs</b>
<b>Gross Value Added</b>	<b>£0.14m</b>	<b>£0.007m</b>	<b>£0.1m</b>	<b>£0.005m</b>

## 7. Conclusions

### 7.1 Introduction

This chapter draws on the various elements of the work programme to present a set of conclusions organised around the objectives of the research. The objectives of the research addressed in these conclusions relate to:

- the analysis and review of the existing studies into the economic value provided by the Bervie Braes;
- the traffic flows on the Bervie Braes and the costs of maintenance; and
- estimating the economic value that the re-opening of the Bervie Braes brings to Stonehaven and the surrounding area.

In addition, we offer a conclusion on the efficacy of all year round opening of the Bervie Braes based on the economic return.

### 7.2 The Previous Economic Study

The aim of the STP funded study was to provide an independent appraisal of the scope and likely scale of the economic impacts associated with the continued closure of the Bervie Braes road. The assessment focused on the tourism related impacts of the closure as these were understood to be the main concern of local businesses. The analysis was based on:

- a desk review of: economic, tourism and transport policies; and an overview of Stonehaven/Aberdeenshire's economy and visitor market;
- a consultation programme with stakeholders, including Dunecht Estate; and
- a small scale survey of local businesses.

The stakeholder consultations and small scale business survey reported the perception that the closure of the Bervie Braes had had a detrimental impact on businesses in Stonehaven. This detrimental effect was not however quantified in terms of a reduction in occupancy rates of accommodation providers or a financial loss to other businesses.

The study estimated that the *economic prize* of retaining visitors in the local area, in terms of accommodation, food and drink, events and retail, was in the region of £9.3m per annum. The *economic prize* was based on the number of non-local visitors to the Castle (53,000) and the average spend per trip to Aberdeenshire of £175. Our view, reached prior to conducting our own visitor and business surveys, is that this is a significant over estimation as to the true economic value of the re-opening of the Bervie Braes as it implicitly assumes that:

- all non-local visitors to Dunnottar Castle would have visited Stonehaven if the Bervie Braes had remained open - i.e. it does not consider non-additionality; and
- all of the visitors' spend on their trip to Aberdeenshire would be made in the Stonehaven and Stonehaven/Kincardine & Mearns area.

The study also fails to take account multiplier effects.

The previous study does recognise its own limitation and recommended that a visitor survey and compliant economic impact assessment be conducted in order to accurately understand the economic value of the Bervie Braes to the Stonehaven economy.

## 7.3 Traffic Flows and the Costs of Maintenance

Aberdeenshire Council has installed automated traffic counters to measure traffic flows down the Bervie Braes. To date<sup>11</sup> the 7 day average over a 24 hours period was 420 vehicles, with a peak traffic flow in any given 24 hour period of 540 vehicles. However, examination of these traffic flows by time of day does suggest that a significant proportion of the trips are being taken by locals.

The costs of maintaining the Bervie Braes will on average be £5,000 per annum at current rates. These costs will cover items such as:

- resurfacing on an 80 year cycle;
- surface dressing every 10 years; and
- winter and drainage maintenance annually.

## 7.4 The Economic Value of the Re-Opening of the Bervie Braes

The economic value that can be attributed to the Stonehaven and surrounding area resulting from the re-opening of the Bervie Braes is not a straightforward calculation, as implied by the STP study, but is somewhat complex, and obtaining a definitive answer is by no means straight forward.

The main complication is measuring additionality - the economic benefit that accrues to the Stonehaven and surrounding area as a *direct* result of the re-opening of the Bervie Braes.

The visitor survey highlighted that Dunnottar Castle is not as important a visitor attraction as stakeholders think - some 60% of tourists would have still visited the Stonehaven and surrounding area anyway without the presence of the Castle. In fact, only 8% said visiting the Castle was the only reason why they were in the Stonehaven and surrounding area.

When questioned as to whether the closure/re-opening on the Bervie Braes had had any impact on the decision to visit the Castle or the Stonehaven and surrounding area almost all (98%) said that it had not - they had no knowledge of the closure/re-opening on the Bervie Braes. Around 90% of visitors to the Castle spent money in the Stonehaven and surrounding area following or before their visit to the Castle.

Grossing up the results from the visitor survey to the population of Castle visitors was also not straightforward; the key issue here is that currently it is only those who visit in the winter (October - March) who are affected by the closure of the Bervie Braes.

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<sup>11</sup> 20 August 2013.

Our approach was therefore to estimate the economic impact:

- separately for:
  - a full year of visitors
  - winter visitors i.e. those who visit the Castle/Stonehaven and surrounding area when the Bervie Braes are closed; and
- applying two non-additionality factors - 60% and 98%.

This approach means that there is no single *economic prize* calculation, but rather a range of calculations, as illustrated in the **Table 7.1**.

**Table 7.1: Economic Impact Summary**

Full Year Visitors				
	Stonehaven and Surrounding Area		Scotland	
	60% non-additionality	98% non-additionality	60% non-additionality	98% non-additionality
<b>Net Additional Expenditure</b>	<b>£0.86m</b>	<b>£0.04m</b>	<b>£1.0m</b>	<b>£0.05m</b>
<b>Employment Impacts</b>	<b>17 FTEs</b>	<b>0.9 FTEs</b>	<b>25 FTEs</b>	<b>1.2 FTEs</b>
<b>Gross Value Added</b>	<b>£0.6m</b>	<b>£0.03m</b>	<b>£0.4m</b>	<b>£0.02m</b>
Winter Visitors				
	Stonehaven and Surrounding Area		Scotland	
	60% non-additionality	98% non-additionality	60% non-additionality	98% non-additionality
<b>Net Additional Expenditure</b>	<b>£0.2m</b>	<b>£0.01m</b>	<b>£0.3m</b>	<b>£0.01m</b>
<b>Employment Impacts</b>	<b>4 FTEs</b>	<b>0.2 FTEs</b>	<b>6 FTEs</b>	<b>0.3 FTEs</b>
<b>Gross Value Added</b>	<b>£0.14m</b>	<b>£0.007m</b>	<b>£0.1m</b>	<b>£0.005m</b>

## 7.5 Conclusion

The costs associated with maintaining the current state of the Bervie Braes is £5,000 per annum at current rates. The *economic prize* associated with the re-opening of the Bervie Braes is at least £10,000 per annum - winter visitors with 98% non-additionality. This suggests that the economic benefit to Stonehaven is twice the maintenance costs, and therefore justifies Aberdeenshire Council expenditure to maintain the current opening arrangements for the Bervie Braes.

The main issue impacting on the decision to open the Bervie Braes all year round is the level of risk. Whilst the road could probably be opened all year round under the present restrictions without further stabilisation work, the onset of winter and the likely wetter ground conditions, the potential for land slips would increase, and so therefore would the risk to road users. The Council could be held liable in the event of an incident if they knowingly allowed the road to be used in an unsafe state. The Council does not have a monitoring system which is sufficiently robust, especially on the upper slope, to predict when landslips might occur. Operating, monitoring and responding to such a system could cause the Council considerable resource issues. If they were to spend £3.5m to stabilise both the upper and lower slopes this could ensure that the road would be safe in all weather conditions and seasons enabling the road to be permanently re-opened.

The economic return for all year visiting is at best £860,000 per year, and at worst £43,000 for all year visitor numbers; for winter visitors the returns are significantly lower. The return on the £3.5m investment in stabilising the upper and lower slopes to enable all year opening will therefore take a number of years to be realised; around 4 years at the upper end of the economic impact, and just over 81 years at the lower end of the economic impact for all year visitors.