

## ABERDEEN CITY COUNCIL

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COMMITTEE	Communities, Housing and Infrastructure
DATE	24 January 2017
DIRECTOR	Pete Leonard
TITLE OF REPORT	Access from the South – Bridge of Dee Study – STAG Part 2 Appraisal
REPORT NUMBER	CHI/16/174
CHECKLIST COMPLETED	Yes

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### 1. PURPOSE OF REPORT

This report advises Members of the outcomes of the Scottish Transport Appraisal Guidance (STAG) Part 2 report that has been submitted by Jacobs consultants for the Bridge of Dee study. A discussion on the findings from the STAG Part 2 Appraisal is provided along with recommendations on how the study should progress.

### 2. RECOMMENDATION(S)

It is recommended that Members:

- a) Note the findings and outcomes of the Bridge of Dee Scottish Transport Appraisal Guidance (STAG) Part 2 Appraisal and approve the publication of a final version on the Council website; and
- b) Agree that a review of the concepts under consideration should be carried out at a suitable period after the opening of the Aberdeen Western Peripheral Route to enable any changes in traffic patterns to be accurately assessed; and
- c) Agree that the indicative costs of the options are brought up to date; and
- d) Agree that engagement continues with key Stakeholders as appropriate, including Aberdeenshire Council and Nestrans.

### 3. FINANCIAL IMPLICATION

To date this project has been funded through a budget allocation from Nestrans, the Regional Transport Partnership and the Bus Lane Enforcement Fund.

Any future funding to progress the project would require to be identified at each stage but non-housing capital funding will be necessary to fully

fund the delivery. Developer funding would be sought as a means of contributing to delivery.

Indicative costs for the current options as at 2010 prices are set out in the following table:

<b>Scheme Costs (2010 Prices)</b>	
<b>Scheme</b>	<b>Cost Range</b>
Option 6	£62m - £86m
Option 6B	£71m - £96m
Option 7	£71m - £89m

#### 4. OTHER IMPLICATIONS

None at this time although all options assessed will have property and environmental implications which will require to be mitigated as part of the delivery of any preferred and approved option.

#### 5. BACKGROUND/MAIN ISSUES

##### 5.1 Introduction

5.1.1 Reference is made to a report to the former Enterprise, Strategic Planning and Infrastructure Committee on 13 March 2014 titled 'Strategic and Local Transportation Projects' in which the following recommendations were approved in relation to the 'Access from the South – Bridge of Dee Study':

- a) Agree that, as resolved by the Nestrans Board at its meeting on 12th February 2014, Concepts 6, 6B and 7 for the Bridge of Dee be progressed to STAG Part 2 Appraisal;
- b) Subject to the agreement of the above recommendation, approve the immediate commissioning of the Bridge of Dee STAG Part 2 Appraisal;

5.1.2 This report sets out the findings of the Scottish Transport Appraisal Guidance (STAG) Part 2 Appraisal study for the Bridge of Dee, which was commissioned following consideration by Aberdeen City Council (ACC), Aberdeenshire Council (AC) and Nestrans and of the Bridge of Dee STAG Pre-Appraisal and STAG Part 1 study reports. The purpose of this study is to consider options to provide transport improvements in the Bridge of Dee area, in keeping with both Regional Transport Strategy and Local Transport Strategy objectives. The options which were carried forward from the STAG Part 1 Appraisal study to the STAG Part 2 Appraisal study were:

- Concept 6: new upstream crossing with additional Non Motorised User (NMU) crossing adjacent to a reconfigured existing Bridge of Dee;
- Concept 6B: as Concept 6, with additional link from Garthdee Road/Inchgarth Road to A93 North Deeside Road; and
- Concept 7: new crossing adjacent to existing Bridge of Dee, which is reconfigured for NMU use only.

5.1.3 The project is identified in the Councils Strategic Infrastructure Plan, which aims to enable delivery of infrastructure priorities required to support economic growth. The project is also a commitment in Aberdeen City and Shire Structure Plan (replaced by Strategic Development Plan), Nestrans' Regional Transport Strategy (RTS) (Refreshed 2013) and ACC's Local Transport Strategy (LTS) (Refreshed 2016).

5.1.4 Completion of the STAG Part 2 Appraisal was overseen by a steering group comprising officers from Aberdeen City Council, Aberdeenshire Council (AC) and Nestrans. The study is being undertaken using STAG methodology and the main STAG Part 2 report along with the supporting documentation will be published on ACC's website at the following Link subject to Committee approval:

[Access from the South Proposals - STAG process and documentation](#)

Plans of the Concepts are shown in Appendix 1.

Artist impressions of the Concepts are shown in Appendix 2. Note that the Bridge type will form part of future discussions and what is shown here are just examples of possible bridge types.

5.1.5 A summary of the assessment findings against the study objectives and each of the STAG Part 2 Appraisal criteria, including broad indicative costs, are summarised in Appendix 3.

## 5.2 Key Findings

5.2.1 In many respects Concepts 6, 6B and 7 perform at a similar level in overall terms. However, key findings which differentiate between the Concepts are:

The link road between the A93 North Deeside Road and Inchgarth Road does not make Concept 6B materially better than Concept 6, and results in additional cost and environmental impacts. Whilst the link road has merits in its own right, and appears to have some public support it is not an essential component of works required to address capacity issues in the Bridge of Dee area.

Bridge options which involve works in the channel of the River Dee are less favourable environmentally and present greater technical challenges than bridge options which do not require works in the channel of the River Dee.

Whilst the impact on existing land and property varies between Concepts 6/6B and 7, the major landowner difference between the options are the impacts of Concept 6/6B on Robert Gordon University and the impacts of Concept 7 on the commercial development on the north side adjacent to the existing bridge. Whilst some of these impacts may be mitigated, including by means of compensation, not all effects are likely to be capable of mitigation.

There is, on balance, public support for Concept 7, whereas there is, on balance, public opposition to Concepts 6 and 6B.

In terms of cumulative environmental impact, Concept 7 is considered to perform marginally more favourably than Concepts 6 and 6B.

Historic Environment Scotland have indicated that they recognise the need for improvements in road network capacity in the Bridge of Dee area, and would not object to Concept 7 if there is a clear rationale to support that decision. They would support holding a design competition to seek bridge designs which offer a high quality solution within the setting adjacent to the Bridge of Dee, recognising other constraints, including the status of the River Dee as a Special Area of Conservation.

### 5.3 Next Stage

5.3.1 The assessment process has made a judgement on the available options based on the appraisal process discussed in the previous sections. The study has also made use of the best available data in making traffic predictions both prior to and after the opening of the Aberdeen Western Peripheral Route (AWPR).

5.3.2 The AWPR is due to open in late 2017 and the predicted impact of this scheme on the existing road network in the Bridge of Dee area has been modelled and taken into account during the appraisal process. Part of the AWPR project will involve monitoring the actual impact of the scheme on completion and this will include consideration of the traffic impact at the Bridge of Dee. Given the key location of the Bridge of Dee and the potential changes that will occur due to the influence of the AWPR, it is considered essential that a review of the transport modelling element of the assessment process should be carried out at that time, to enable a clear and accurate picture of the traffic pattern changes to be fed into the appraisal. Overall, a review at the post AWPR stage will improve the accuracy of the assessment and provide robust base line information to assist the decision making process. A timescale of this review of post AWPR traffic patterns will be dependent on how long it takes new traffic patterns to become established and

stabilise and any decision on this would be based on findings from the AWPR monitoring process.

5.3.3 It is clear that new river crossing capacity at this location is strategically important for the whole region. The options considered in this STAG Part 2 physically span Aberdeen City and Aberdeenshire Council geographic areas. It will be important to continue engagement with Aberdeenshire Council, Nestrans and other key Stakeholders with the review referenced in 5.3.2 to inform that decision making process.

## 6. IMPACT

### 6.1 Improving Customer Experience:

The contents of this report and the recommendations relate to the delivery of a transport infrastructure improvement at the Bridge of Dee, which is a key intervention that will assist in improving access to Aberdeen from the south for all those who live in, work in and visit it.

### 6.2 Improving Staff Experience:

A defined, fully resourced programme of delivery for transport schemes, which includes implementation of improvements at the Bridge of Dee, will enable staff, with stakeholders and the public, to share in the success that sustainable improvements, which assist the movement of people, will provide.

### 6.3 Improving our use of Resources:

The economic benefits of this scheme have been identified within the assessment demonstrating that the improvement provides value for money and would therefore be a worthwhile use of resources. Further resources will continue to be required for the wider delivery of the transport network plan to support the successful delivery of the Strategic Infrastructure Plan, which has identified a range of benefits for citizens, visitors and business across the City.

### 6.4 Corporate:

Positive decision making informing the progressive implementation of an improvement at Bridge of Dee directly supports a range of policies and strategies including:

Aberdeen – the Smarter City vision:

- We will invest in the city where that investment demonstrates financial sustainability based on a clear return on investment
- We will encourage cycling and walking.
- We will provide and promote a sustainable transport system, which reduces our carbon emissions.

## Local Outcome Improvement Plan:

The Local Outcome Improvement Plan (LOIP) 2016-26 for Community Planning in Aberdeen (CPA) recognises a commitment to investing in infrastructure that caters for the needs of a high performing international city economy by providing roads with capacity to cope with the demands of business along with extensive air and sea links. Delivery of an improvement at Bridge of Dee will assist in the priority of making Aberdeen easy to access and move around in.

## Strategic Infrastructure Plan:

Stakeholder engagement which informed this Plan revealed that the inadequate state of the Local and National road network is one of a number of issues identified as a common theme. The results identified 'Transport and Connectivity: Access to Labour and Skills' as a major barrier to growth and should therefore be considered a priority sector. Access from the South is considered a key strategic infrastructure project identified within the 'Strategic Infrastructure Plan' necessary to underpin growth and maximise economic impact in the City and region.

### 6.5 Public:

The contents of this report are likely to be of public and media interest as it relates to transport infrastructure at a key location to the south of the city and therefore would contribute to a significant improvement to the movement of people and goods for the City and Region. A Privacy Impact Statement is not required for this report.

An Equalities and Human Rights Impact Assessment (EHRIA) has not been undertaken on this report as the LTS and RTS from which the transportation schemes within this report are an integral part have been subject to the appropriate assessments. Future Committee reports on the detailed design of any preferred option would be the subject of an EHRIA.

## 7. MANAGEMENT OF RISK

There is a risk inherent in not progressing a key transport infrastructure improvement set out in the Strategic Infrastructure Plan which will deliver a range of benefits including sustainable transport modes..

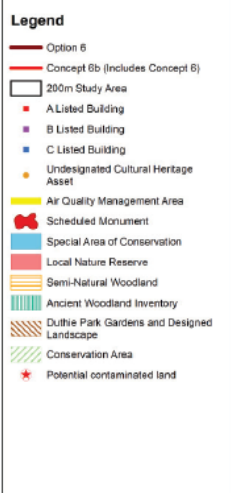
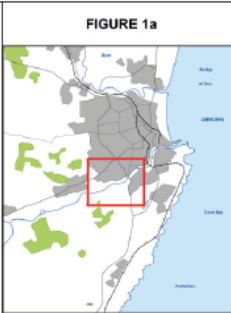
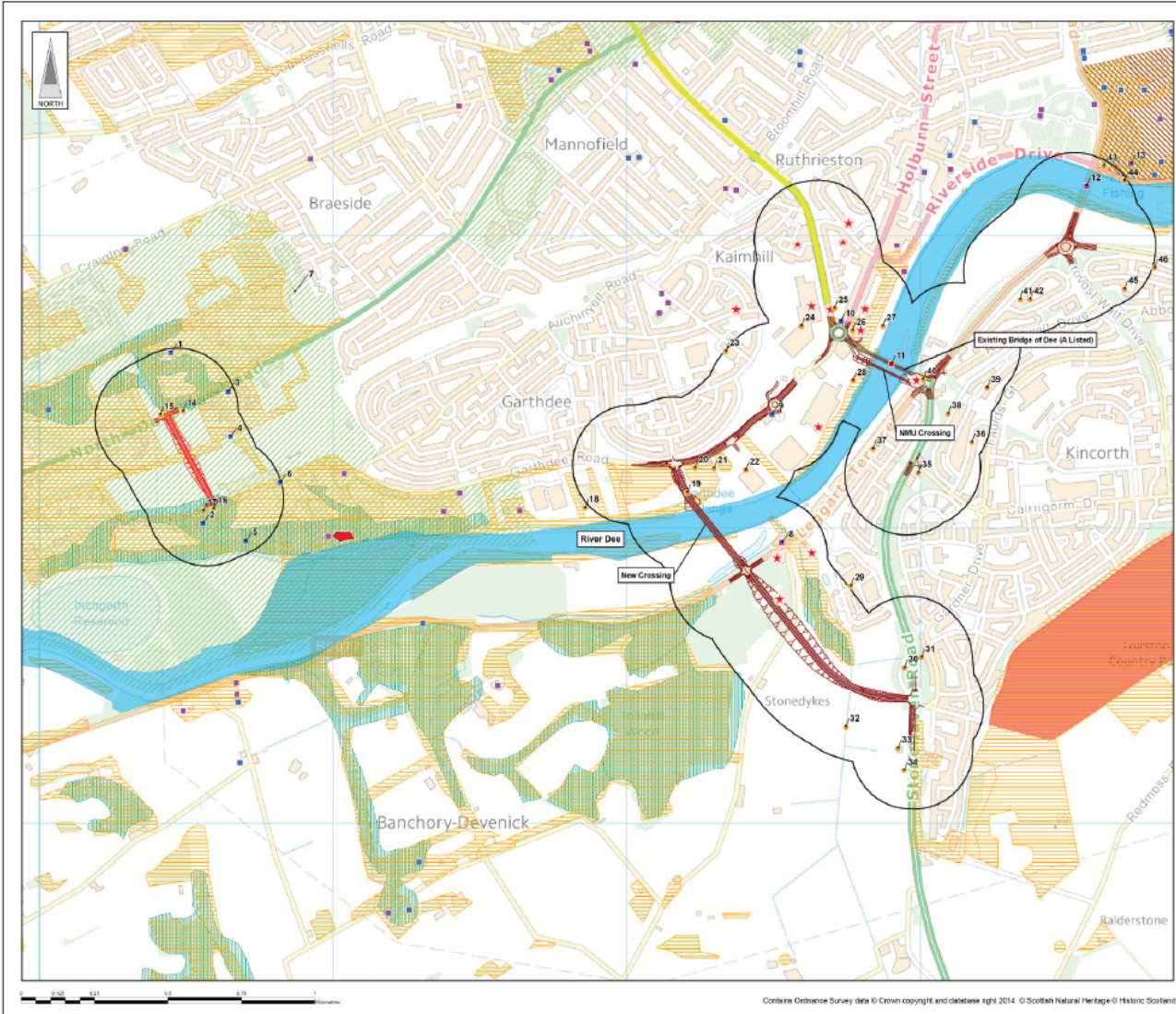
## 8. BACKGROUND PAPERS

[Committee Report on STAG Part 1 Outcomes \(Section 2\)](#)

## 9. REPORT AUTHOR DETAILS

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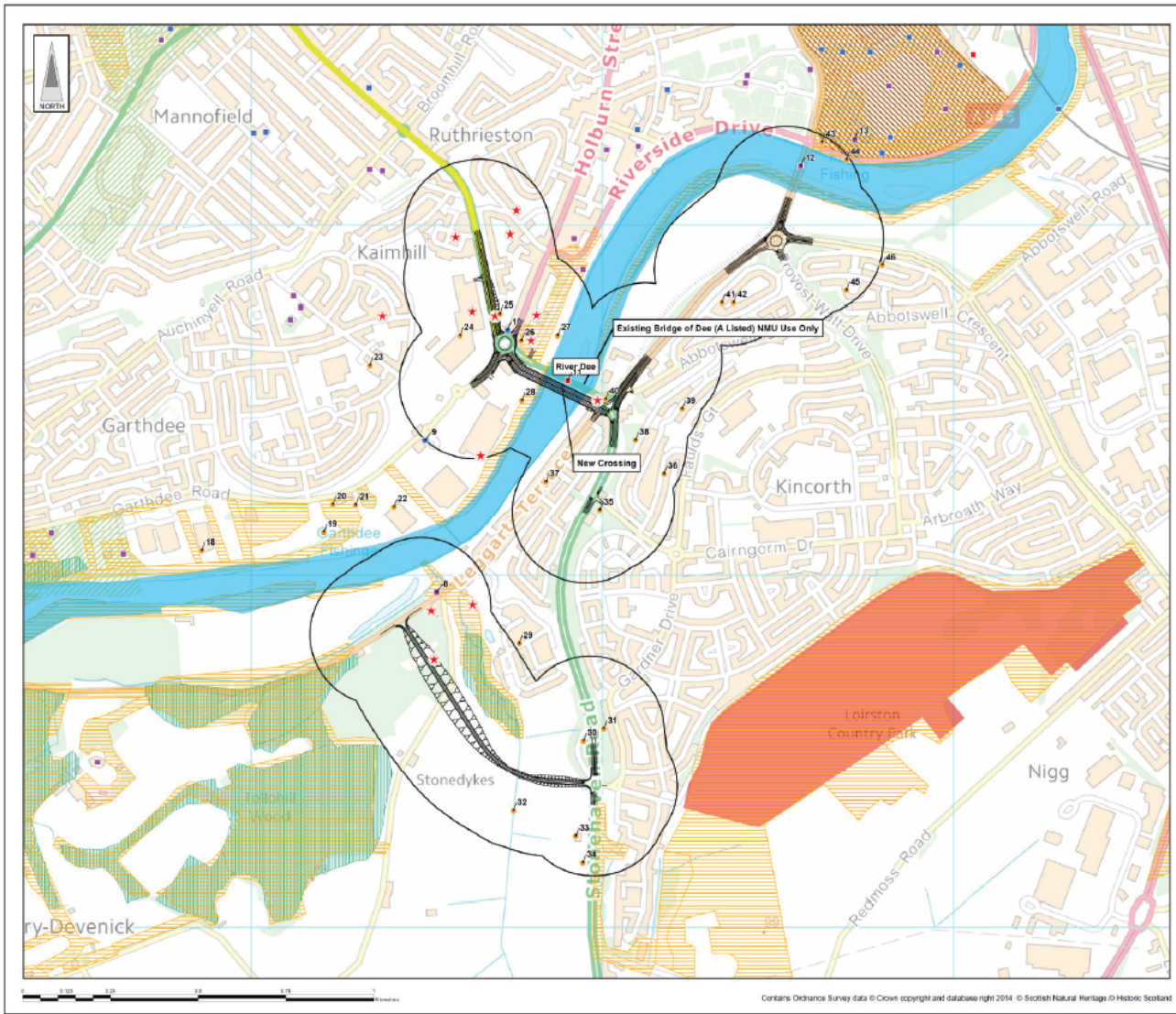
## Appendix 1 – Concept Plans



0	June 2015	06/17	SH	TU	RU	WK
Rev	Rev	Date	Author	Checked	Drawn	Printed
<b>JACOBS</b>						
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<b>Client</b>	Aberdeen City Council					
<b>Project</b>	Bridge of Dee STAG 2 Appraisal					
<b>Title</b>	Environmental Constraints Concept 6 and 6b					
<b>Drawing Status</b>	06/17					
<b>Proj. No.</b>	06/16/005					
<b>Draw. No.</b>	Figure 1a				Revision 0	
<b>Scale</b>	1:6,000 @ A1		<input type="checkbox"/> A2	<input type="checkbox"/> A3	Date 2015	
	Drawn	Checked	Rev	Author	Date	
<small>This map is to be used on the 22nd June 2015 for the purpose of the STAG 2 Appraisal and should not be used for any other purpose. The map is for information only and does not constitute a contract. The map is for information only and does not constitute a contract. The map is for information only and does not constitute a contract.</small>						

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**FIGURE 1b**

**Legend**

- Concept 7
- 200m Study Area
- A Listed Building
- B Listed Building
- C Listed Building
- Undesignated Cultural Heritage Asset
- Air Quality Management Area
- Scheduled Monument
- Special Area of Conservation
- Local Nature Reserve
- Semi-Natural Woodland
- Ancient Woodland Inventory
- Duthie Park Gardens and Designed Landscape
- Conservation Area
- ★ Potential contaminated land

Rev	Date	Description of revision	AA	WJ	ML	DK
0	June 2016	DRAFT				

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Client	Aberdeen City Council
Project	Bridge of Dee STAG 2 Appraisal
Title	Environmental Constraints Concept 7

Drawing Status	01/16/17	02/16/17	03/16/17	04/16/17	05/16/17	06/16/17	07/16/17	08/16/17	09/16/17	10/16/17	11/16/17	12/16/17
Figures No.	Figure 1a	Figure 1b	Figure 1c	Figure 1d	Figure 1e	Figure 1f	Figure 1g	Figure 1h	Figure 1i	Figure 1j	Figure 1k	Figure 1l
Scale	1:5,000 @ A1	1:5,000 @ A1	1:5,000 @ A1	1:5,000 @ A1	1:5,000 @ A1	1:5,000 @ A1	1:5,000 @ A1	1:5,000 @ A1	1:5,000 @ A1	1:5,000 @ A1	1:5,000 @ A1	1:5,000 @ A1
	1/16	2/16	3/16	4/16	5/16	6/16	7/16	8/16	9/16	10/16	11/16	12/16

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Appendix 2 – Artist Impressions

Concept 7 – Adjacent Bridge - Steel Arch



Concept 6 & 6B – Upstream Bridge – Cable Stay



Concept 6 & 6B – Non Motorised User Bridge



### **Transport Planning Objectives**

The following transport planning Objectives were adopted during the STAG Pre-appraisal study stage and the options under consideration have been assessed against these:

- Support the implementation of the current Development Plans by 2030 in a manner which does not result in increased journey times compared to 2010 for all classes of road users;
- Incorporate measures which benefit public transport and active travel and encourage modal shift away from private car use;
- Improve safety, security, amenity and connectivity for non-motorised road users and communities within the study area;
- Deliver air quality and noise impact benefits in areas adjacent to the local road network by directing traffic towards the strategic road network;
- Recognise the importance of the River Dee SAC and the Category A Listed Bridge of Dee and develop proposals to minimise overall environmental impacts, including at these locations, to a level acceptable to the consenting authority; and
- Support the effective operation of the local and national transport networks, including use by traffic of appropriate distributor routes.

On assessment against the Transport Planning Objectives established as part of the STAG Pre-Appraisal study, Concept 6 is considered to score most favourably and Concept 6B and 7 are considered to score slightly less favourably.

### **STAG Criteria**

The assessment findings against each of the STAG Part 2 Appraisal criteria are summarised as follows:

Environment: The most significant differentiator in environmental effects is related to the nature of the bridge crossing structures considered, with those which require works within the river being having a greater impact than those which do not require such works. When comparing similar bridge types, all concepts score broadly similarly, with minor variations. Although some environmental benefits are anticipated, all concepts are anticipated to result in adverse environmental impacts. While the assessment of the scale of these

impacts is similar between concepts, in terms of cumulative impacts, Concept 7 is considered to have less of an impact than Concepts 6 and 6B, on the basis that its effects occur within a more localised area.

Safety: Concepts 6, 6B and 7 provide similar levels of safety benefits.

Economy: Concepts 6, 6B and 7 provide similar and strong levels of economic benefits with each concept providing a Benefit/Cost Ratio of greater than one.

Integration: Concept 7 provides a greater level of integration benefits than Concept 6 and 6B.

Accessibility and Social Inclusion: All concepts score similarly in providing accessibility and social inclusion benefits.

On assessment against the STAG Criteria overall, Concept 7 provides marginally greater benefits than Concept 6 and 6B.

### Feasibility

As with the Environmental criterion, the greatest differentiator in terms of feasibility is related to the nature of the bridge crossing structures and whether these entail works within the river. Where such works are required, these are considered inherently more technically challenging and complex than if they are not required. When comparing similar bridge types, Concepts 6, 6B and 7 all options are feasible but where works in the river are required, would be considered more technically challenging and complex to deliver.

### Cost to Government

As with the Environmental and Feasibility criteria, the greatest differentiator in terms of cost is related to the nature of the bridge crossing structures. Where increased spans are required to eliminate the need for works within the river, these result in increased scheme costs. In overall terms, when comparing similar bridge types, the concepts are considered to have broadly similar costs with a cost range from £62M to £96M. These costs will be subject to further refinement as the scheme moves to a more detailed design stage.

<b>Scheme Costs (2010 Prices)</b>	
<b>Scheme</b>	<b>Cost Range</b>
<u>Option 6</u>	<u>£62m - £86m</u>
<u>Option 6B</u>	<u>£71m - £96m</u>
<u>Option 7</u>	<u>£71m - £89m</u>

### Public Acceptability

A public exhibition of project proposals was held in May 2016 at three venues close to the Bridge of Dee. Over 900 responses were received and although most people did not express a preference between options, of those that did, Concept 7 received more positive than negative preferences. Concepts 6 is

considered to be the least favourable option. For Concept 6B there is general public support for the link road between Inchgarth Road and A93 North Deeside Road only and not for the other works associated with Concept 6.

### Stakeholder Consultation

Throughout the STAG Part 2 Appraisal design phase various stakeholders have been consulted to provide opinion and advice on the design of the concepts. Several stakeholder workshops were arranged and attended by a number of parties which included various statutory bodies, major landowners directly affected by the proposed works, and advisory groups.