

Transport Scotland

Borders Railway Final Business Case final version

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Ernst & Young LLP

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Abbreviations

BCR	Benefit Cost Ratio
BRP	Benefits Realisation Plan
CEC	City of Edinburgh Council
CLM	Council Liaison Manager
CoCP	Code of Construction Practice
CRN	Calculation of Rail Noise
DECC	Department for Energy and Climate Change
DMU	Diesel Multiple Unit
EIS	Environment Impact Assessment
ERM	Environmental Resources Management
FBC	Final Business Case
GDP	Gross Domestic Product
GI	Geographic Information
GSMR	Global System for Mobile Communications - Rail
GRIP	Network Rail's Guide to Railway Investment Projects
HLOS	High Level Output Specification
IDM	Investment Decision Maker
IFRS	International Financial Reporting Standards
MLC	Midlothian Council
NPD	Non Profit Distribution
NPV	Net Present Value
NR	Network Rail
OBC	Outline Business Case
OLE	Overhead Line Equipment
ORR	Office of Rail Regulation
PAN	Planning Advice Note
PDG	Project Delivery Group
PER	Post Evaluation Review
PIR	Post Implementation Review
PVB	Present value of benefits
PVC	Present value of costs
RAB	The Network Rail Regulated Asset Base
SBC	Scottish Borders Council
SBC	Strategic Business Case
SIMD	Scottish Index of Multiple Deprivation
SPV	Special Purpose Vehicle
SRO	Senior Responsible Officer
STAG	Scottish Transport Appraisal Guidance
TOC	Train Operating Company
TPO	Transport Planning Objective
TS	Transport Scotland
VfM	Value for Money
WEBs	Wider Economic Benefits

Executive summary

Introduction

This Final Business Case (FBC) seeks approval of the Transport Scotland (TS) Investment Decision Making (IDM) Board to invest in the construction of the Borders Railway. Construction is scheduled to begin in 2012 with services commencing in 2015.

The investment case

The development of the final business case

Since the completion of the Outline Business Case (OBC) there have been significant changes to the way projects are appraised and changes to key variables within the project. As project development has progressed a more accurate picture of the passenger timetable has emerged, as well as capital and operating costs and the project opening year. Economic model parameters, such as values of time, have also changed as the transport appraisal technical guidance has been updated to reflect the latest GDP forecasts. These latest forecasts have been revised downwards to reflect the recent economic recession.

In general, the performance against the investment objectives remains unchanged. Three out of the four investment objectives are focussed on accessibility and social inclusion. The Borders Railway is expected to increase accessibility and social inclusion in the Scottish Borders and Midlothian significantly with the Borders Railway securing access to Edinburgh's labour market. The economic appraisal has substantially worsened, with the Benefit to Cost Ratio (BCR) falling from 1.2 to 0.5. However, the main reasons for this decrease relate to the way the project has been appraised, rather than changes to the project itself. Moreover, it is important to note that accessibility and social inclusion benefits are not taken into account in the core economic appraisal. When the benefits are included this increases the BCR to 1.3.

Additionally, the project appraisal has confirmed:

1. Substantially the same benefits will be delivered i.e. a new railway, 2 trains per hour with the majority of services having an anticipated Journey Time of 56 minutes
2. Overall, the RAB finance model projected outturn, in whole life cost terms is substantially less than the NPD model projected outturn (15%) but remains comfortably within previously set affordability levels
3. A different approach to risk ownership has been taken which allows key risks to be more effectively shared and therefore better managed

Appraisal against investment objectives

The table below summarises the performance against each objective:

Table 1: Performance against investment objectives

Investment objective 1: The promoting of accessibility to and from the Scottish Borders and Midlothian to Edinburgh (including the airport) and the central belt.	The project continues to perform well in improving accessibility, with two trains per hour in each direction providing regular and reliable access to Edinburgh city centre.
Investment objective 2: Foster social inclusion by improving access to key services for those without access to a car.	Approximately 21% of households in the Scottish Borders do not have access to a car. The Borders Railway alongside schemes such as the public transport interchange at Galashiels enables those without a car to access key services and markets. This project contributes positively to this objective.
Investment objective 3: To prevent decline in the Borders population by securing ready access to Edinburgh's labour market.	By delivering a fastest end to end journey time of 56 minutes this project still performs well against this objective. Between 2001 and 2011 the City of Edinburgh saw a 10.3% growth in population, in comparison to the 5.8% and 1.8% growth in the Borders and Midlothian respectively. The new train service will provide those living in the Borders and Midlothian the opportunity to commute into Edinburgh and readily access the Edinburgh labour market. This is likely to improve the attractiveness of living in the Borders and Midlothian and will help ease constraints on labour market growth facing the City of Edinburgh due to planning constraints.
Investment objective 4: To create a modal shift from the car to public transport.	The Borders Railway meets this objective successfully as the opening of the railway is forecast to reduce the number of annual car trips along the route approximately by 530,000 and the forecast number of annual return trips in the railway's opening year is approximately 650,000.

The commercial case

This section has been removed due to commercially sensitive information contained, release of which is likely to prejudice substantially the commercial interests of Scottish Ministers in light of the commercial deal in place with Network Rail for the delivery of the project and in the run up to the letting of the next ScotRail franchise.

Procurement strategy

Four procurement routes were originally identified at the OBC stage: Network Rail (NR) Traditional Approach, NPD (Non Profit Distribution), PFI (Private Finance Initiative) and Design and Build. After quantifying the cost of delivery and identifying the risks / benefits associated with each procurement route, the OBC concluded that the preferred procurement route at that time was NPD. As a result, the competitive dialogue process was used to run a competition and evaluate bidders based upon this structure. However, this process was subsequently abandoned in 2011 due to market failure and prompted TS to re-appraise the delivery route.

PFI and Design and Build have been discounted from further assessment at the FBC stage. PFI does not fit with current Scottish Government policy and the structure has been replaced by the use of NPD. Design & Build was also considered to be inappropriate as it requires significant capital funding which has not been budgeted for and there is also a disconnect between whole life costs and VfM under this approach.

As a result of this initial de-selection, traditional NR and NPD have been taken forward for further analysis:

Commercial analysis

The cost, risk and benefits associated with each route have been analysed and the conclusion of TS is:

- ▶ The risks associated with NPD are too great given the previous market failure in 2010
- ▶ The Traditional NR approach provides the most benefits when compared to the others. It provides the optimum balance of risk, control and funding.
- ▶ TS and NR have undertaken a detailed risk assessment and are continuing to monitor and mitigate the risks on an ongoing basis. TS is proposing to transfer similar risks under both the NR Traditional approach and the previous NPD structure.

Potential for risk transfer

The general principle is that risk should be passed to 'the best party able to manage', subject to VfM. Detailed schedules and work has been undertaken and final discussions are ongoing with NR and the final risk allocation is nearing agreement.

The financial case

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The management case

Robust governance and management structures have been developed for the Borders Railway project. The governance protocol between TS and NR will be set out in the transfer agreement.

The management structure is set out in the table below.

Table 2: Management structure

TS Chief Executive	<ul style="list-style-type: none"> ▶ responsible for decisions on the Agency's capital investment programme ▶ supported by the TS Investment Decision Making (IDM) board in key financial and programme decisions
TS Board/IDM	<ul style="list-style-type: none"> ▶ responsible for ensuring that the Chief Executive is advised and supported in the fulfilment of his role
Project Delivery Group (PDG)	<ul style="list-style-type: none"> ▶ monitors the progress of the Borders Railway against the requirements set in the Delivery Plan ▶ monitor progress and budget on the project ▶ give clear direction to the NR Project Director and the NR Borders team
TS Director of Rail	<ul style="list-style-type: none"> ▶ Director responsible for the ScotRail franchise, the funding relationship with NR and the delivery of all TS's Rail Projects ▶ the Senior Responsible Owner (SRO) following the hand over of the delivery to NR
Borders Railway Sponsor	<ul style="list-style-type: none"> ▶ responsible for heading up TS's Rail Projects Team ▶ reports to the Director of Rail

Delegated authority

The project is governed by TS, under the oversight of the IDM Board, which retains the power of approval over funding decisions in excess of £5m, advancing between project stages, and significant changes to the project specification.

The IDM will be informed of progress by and receive recommendations from the Project Board, which includes external stakeholder representation. A TS core team is responsible for the daily management of the project in accordance with the project execution plan, and the senior project manager has delegated authority up to £100,000.

Benefits Realisation Plan

The success of the project will be judged in part on the successful delivery of the project outputs but ultimately on the successful realisation of the benefits. The Borders Railway Benefits Realisation Plan (BRP) sets out the project benefits and the processes and actions required to ensure they are successfully realised.

Post project evaluation arrangements

TS will undertake two post project evaluation reviews:

- ▶ a Post Implementation Review (PIR) to measure whether the anticipated benefits have been delivered compared with expectations and is timed to take place on completion of the project and commencement of passenger services.
- ▶ Project Evaluation Review (PER) to appraise how well the project was managed and delivered compared with expectations.

Conclusion and next steps

This document has set out the FBC and presents the evidence for approval to invest in the construction of the Borders Railway. Further details of each case are presented in the remainder of the report.

The next steps to approval and commencement of the project include:

- ▶ Completion of Gateway 3 Review: 21 September 2012
- ▶ Authorisation from IDM to Proceed to Contract: 8 October 2012
- ▶ Final submission to Minister / Cabinet Secretary for approval: mid October 2012
- ▶ Signing Ceremony: week commencing 5 November 2012.

Contents

1. Investment case	1
1.1 Introduction.....	1
1.2 The Strategic Vision	1
1.3 Summary of the Strategic Business Case findings	2
1.4 Summary of the Outline Business Case findings	2
1.5 Development of the Final Business Case	2
1.6 Set objectives for the project.....	3
1.7 Economy	3
1.8 Environment	5
1.9 Safety	6
1.10 Accessibility and social inclusion	7
1.11 Integration	12
1.12 Calculate economic appraisal indicators	13
1.13 Sensitivity testing.....	13
1.14 Appraisal against Investment Objectives	14
1.15 Conclusions.....	15
2. Commercial case.....	16

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3. Financial case.....	17
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4. Management case	18
4.1 Borders Railway	18
4.2 Roles of the principal partners	18
4.3 Governance structure.....	19
4.4 Risk Management	20
4.5 Transport Scotland Project Sponsor	20
4.6 Network Rail Project Director	20
4.7 Decision Maker Roles and Limits of Delegated Authority	22
4.8 Project schedule.....	22
4.9 Stakeholder & Communications.....	23
4.10 Outline arrangements for Post Project Evaluation	23
4.11 Conclusion of Management Case	24

1. Investment case

1.1 Introduction

This section sets out the Investment Case for the Borders Railway, with particular focus on the strategic fit. The purpose of the Investment Case is to:

- ▶ Establish the rationale and the objectives of the intervention.
- ▶ Demonstrate why the proposed Programme is the most suitable method for meeting the objectives.
- ▶ Set out how the Borders Railway contributes to the objectives of Scottish Government.

1.2 The Strategic Vision

The Government Economic Strategy (2011) reaffirms the core purpose for the Scottish Government:

“To focus Government and Public Services on creating a more successful country, with opportunities for all of Scotland to flourish, through increasing sustainable economic growth.”

Furthermore, the strategy sets out a Cohesion target, which aims:

“To narrow the gap in participation between Scotland’s best and worst performing regions by 2017.”

The strategy also sets the following objectives for transport:

- ▶ Making connections across and within Scotland better
- ▶ Improving reliability and journey time
- ▶ Maximising the opportunities for employment, business, leisure and tourism.

In addition, the National Transport Strategy (2006) highlights the following high level objectives:

- ▶ Promote economic growth
- ▶ Improve integration
- ▶ Promote social inclusion
- ▶ Improve safety of journeys
- ▶ Protect our environment and improve health

The aim of the Borders Railway is to support the Scottish Government’s Purpose by delivering improvements in access to Edinburgh and important regional markets for those living in the Scottish Borders and Midlothian, securing access to Edinburgh’s labour market. The Borders Railway also contributes to fulfilling the transport objectives set out in the Government Economic Strategy, by improving the opportunities for leisure and tourism in the region, and the National Transport Strategy’s objectives by improving integration, promoting regional cohesion/social inclusion and by helping to promote economic growth.

1.3 Summary of the Strategic Business Case findings

The Strategic Business Case set out the following investment objectives:

Table 3: Strategic objectives

Investment objective 1:	The promoting of accessibility to and from the Scottish Borders and Midlothian to Edinburgh (including the airport) and the central belt.
Investment objective 2:	Foster social inclusion by improving access to key services for those without access to a car.
Investment objective 3:	To prevent decline in the Borders population by securing ready access to Edinburgh's labour market.
Investment objective 4:	To create a modal shift from the car to public transport.

A range of options was considered through the initial appraisal report. In addition to the railway, the options considered in detail included a minimum intervention option, where only limited improvements to existing transport provision were made, the creation of a specific express guided bus way, along the route of the previous railway, and light or heavy rail options.

The initial appraisal report established that only the rail proposals were likely to contribute to all the investment objectives of the project, with heavy rail having the superior performance. Due to this superior performance against the investment objectives heavy rail was the only option taken forward to the more detailed assessment stage.

1.4 Summary of the Outline Business Case findings

The Outline Business Case (OBC) provided a detailed assessment against the STAG criteria of Economy, Environment, Safety, Accessibility and Social Inclusion and Integration. The OBC assessed a variety of timetables, with a preferred end to end journey time of 55 minutes. The corresponding analysis calculated a BCR of 1.22 with the NPV¹ equalling £29.69m.

Following the detailed assessment, it was shown that the project made a positive contribution to all of the objectives. On this basis the project was progressed.

1.5 Development of the Final Business Case

Since the completion of the OBC there have been significant developments and changes to key variables within the project. As project development has progressed a more accurate picture of the timetable has emerged, featuring slightly longer journey times than previously anticipated, as well as changes in estimates of capital, maintenance and operating costs and to the project opening year. Taken together, capital and maintenance costs have fallen. Economic model parameters, such as values of time, have also changed as the transport appraisal technical guidance has been updated to reflect the latest GDP forecasts. These latest forecasts have been revised downwards to reflect the recent economic recession. As the growth in the value of time reflects the GDP per capita growth rate, the value of time growth rates have also been revised downwards. A change in the way future demand growth is treated has also seen a reduction in forecast patronage over the longer term.

Given these changes an update to the Investment Case has been produced, providing an up to date robust and detailed assessment of the Borders Railway. The approach adopted incorporates 10 parts to the assessment, as set out below.

1. Set objectives for the Programme
2. Economy
3. Environment

¹ The NPV in economic appraisal terms is the present value of benefits minus the present value of costs.

4. Safety
5. Accessibility and social inclusion
6. Integration
7. Calculate economic appraisal indicators
8. Sensitivity testing
9. Appraisal against transport planning objectives
10. Conclusions.

Each part of the assessment is set out in turn below.

1.6 Set objectives for the project

Despite the significant changes to key variables within the project the strategic objectives remain valid. These objectives are set out below:

Table 4: Strategic objectives

Investment Objective 1:	The promoting of accessibility to and from the Scottish Borders and Midlothian to Edinburgh (including the airport) and the central belt.
Investment Objective 2:	Foster social inclusion by improving access to key services for those without access to a car.
Investment Objective 3:	To prevent the decline in the Borders population by securing ready access to Edinburgh's labour market.
Investment Objective 4:	To create modal shift from the car to public transport.

The following sections provide detail on the latest performance of the Borders Railway Project against these objectives.

1.7 Economy

1.7.1 Benefits

The economic benefits associated with the Borders Railway have been calculated through the use of a bespoke model, which is based on standard rail industry modelling techniques and is in line with STAG. Two different types of economic benefits have been calculated: standard passenger and operator benefits, and wider economic benefits (WEBs). Wider economic benefits are an attempt to quantify the economic impacts from the transport intervention that are not quantified through the standard passenger and operator benefits. Three possible types of additional economic impacts of the Borders Railway have been identified as: agglomeration economies², increased competition as a result of better transport, and wider benefits arising from improved labour supply. However, the methodology for calculating these additional impacts is an emerging area of transport economics, and is generally accepted as being less certain than the calculation of standard benefits. They have therefore been presented separately.

Since the OBC, more detailed timetabling analysis of the project has been conducted. This indicates that a fastest journey time of 56 minutes can be achieved throughout the day from Tweedbank to Edinburgh. Whilst a fastest end to end journey time of 60 minutes can be achieved from Edinburgh to Tweedbank during the morning peak and off peak periods, the fastest journey time falls to 57 minutes in the evening peak. Network Rail has now indicated

² Economies of agglomeration describe the productivity benefits that some firms derive from being located close to other firms. This could be because proximity to other firms facilitates more sharing of knowledge or because locating close to other firms means access to more suppliers and larger labour markets. These benefits are relevant for rural areas too and therefore are applicable to the Borders Railway.

that a reduction of a further minute is achievable on the Edinburgh to Tweedbank evening peak journey.

The results of the bespoke model analysis are set out below. All figures are in standard discounted 2002 market prices.

Table 5: Appraisal of economic benefits from the Borders Railway (£m)

Parts of this table, relating to revenue and maintenance and operating costs, have been removed due to commercially sensitive information contained, release of which is likely to prejudice substantially the commercial interests of Scottish Ministers in light of the commercial deal in place with Network Rail for the delivery of the project and in the run up to the letting of the next ScotRail franchise.

Table 6: Appraisal of economic benefits from the Borders Railway (£m)

Benefit	Borders Railway
User benefits	
Travel time	88.8
Decongestion benefits	17.2
User charges	(84.4)
Vehicle operating costs	69.5
Total	91.1
Private sector impacts	
Total	0.4
Indirect taxation	(21.8)
Present value of benefits	69.7
Wider economic benefits	25.8
Present value of benefits including wider economic benefits	95.5

The table illustrates that the Borders Railway has a positive benefit associated with it. The carbon and safety benefits are provided in sections 1.8 and 1.9 below. It should be noted from Table 5 that the railway is expected to generate an operating surplus, with revenues greater than operating costs over the lifetime of the project. Further details can be found in the financial case.

1.7.2 Costs

The total construction costs of the railway over the appraisal period are shown in the table below, in standard discounted 2002 market prices.

Table 7: Appraisal of costs of the Borders Railway (£m)

Parts of this table have been removed due to commercially sensitive information contained, release of which is likely to prejudice substantially the commercial interests of Scottish Ministers in light of the commercial deal in place with Network Rail for the delivery of the project and in the run up to the letting of the next ScotRail franchise.

Table 8: Appraisal of costs of the Borders Railway (£m)

Cost to Government	Borders Railway
Present value of costs	139.2

The present value of costs (PVC) or the total cost to Government comprise construction costs and the subsidy/surplus, i.e. revenues net of maintenance costs and operating costs. Note

that all costs used for the analysis above are consistent with those presented in the Financial Case, with any differences a result of a difference price base and discounting.

1.7.3 Patronage levels

The economic benefits of the railway are dependent on future patronage levels. The economic benefits outlined in Table 8 are based on a central patronage forecast, which itself is the average of two alternative forecasts³, one which predicted relatively higher levels of demand and one which predicted relatively lower levels of demand. The table below provides the patronage forecasts for the opening year of the Borders Railway, totalling an estimated 647,136 return journeys annually.

Table 9: Annual return trips in the opening year, 2015

Station	Central Forecast
Tweedbank	21,621
Galashiels	23,431
Stow	5,843
Gorebridge	90,019
Newtongrange	52,918
Eskbank	130,525
Shawfair	61,860
Brunstane / Newcraighall	986
Waverley	220,533
Haymarket	35,329
Edinburgh Park	4,071
Total	647,136

1.8 Environment

A full Environment Impact Assessment of the Borders Railway has been carried out by Environmental Resources Management (ERM), and the conclusions of this are reported in detail within the OBC. Significant impacts have been identified in the following areas:

- ▶ Noise and vibration
- ▶ Landscape
- ▶ Visual amenity
- ▶ Global air quality.

1.8.1 Noise and vibration

The introduction of a new railway line will increase the noise level in the area. This is only a concern in areas where it impacts on people's lives, which will tend to be where the railway passes near residential areas, particularly so in urban areas.

³ The two approaches to forecast demand are a stated preference survey and a trip generation approach. The trip generation approach uses generic trip rates (the number of trips per thousand head of population within a defined area) to forecast demand, while the stated preference survey involved interviewing residents along the Borders Railway line about their potential use of the railway. The trip generation methodology has a tendency to underestimate demand whilst there is some concern that the stated preference work may have overstated demand, thus a mid point between the two has been chosen as the central estimate.

There will be some short term impacts from the construction process, which will be mitigated as far as possible. Mitigation during construction will be achieved through best practice captured in the Code of Construction Practice (CoCP) which the contractor is required to comply with.

The predicted noise levels from the train have been calculated in accordance with the method in Calculation of Rail Noise (CRN). Noise levels have been calculated for 60 receptor locations along the length of the railway. Of these, there are 23 where the thresholds laid out in Planning Advice Note (PAN) 56 are predicted to be exceeded. The results are shown in Table 10 below:

Table 10: Noise levels with the introduction of the Borders Railway

Threshold	No. of locations where threshold is perceptibly exceeded	No. of locations where the threshold is not perceptibly exceeded	Total
LAeq (day and night)	17	6	23
LAeq (night)	9	14	23

The project has a noise and vibration policy for mitigating the operational effects of the railway that have been identified above. These measures include environmental noise barriers which will be provided. There are further mitigation measures which can be implemented if the individual situation merits; such as noise insulation for homes.

1.8.2 Landscape

There will be several significant changes to features of the landscape; however, since the route in general follows the existing railway solum, these will be more limited than would be expected from the introduction of a new railway. The main impacts result from building new railway viaducts over the A7 at Hardengreen, the construction of new stations and park and ride facilities.

There is an Environmental Management System which details protection measures for existing landscaping and contains details for the landscaping designs going forward.

1.8.3 Visual amenity

Negative visual amenity impacts will also be minimal as the railway follows the existing solum. However, there will be limited negative impacts along the length of the route caused by the need for communication masts, the removal of some houses in Gorebridge and Galashiels, and the introduction of trains to otherwise open countryside.

The project re-designed the planned footbridge at Heriot which would have included extensive ramps to meet inclusive mobility criteria. After consultation with the local community the project pursued an underpass solution which maintained the inclusive mobility criteria at the same time as reducing the visual impact in this rural area.

1.8.4 Global air quality

Overall, the Borders Railway is expected to reduce carbon emissions by transferring journeys from road to rail. The analysis has been conducted in line with guidance from the Department for Energy and Climate Change (DECC) and STAG. The results show that there will be a total net saving in carbon dioxide emissions of 33,865 tonnes over the 60 year appraisal period (2015-2074). This reduction in carbon dioxide emissions equates to £1.6m (2002 discounted market prices) in benefits.

1.9 Safety

The Borders Railway is expected to prevent approximately 360 accidents over the 60 year appraisal period. This is the result of reducing the number of car journeys made along the length of the route. In line with guidance, accidents on rail are seen as negligible and so are

not considered. The reduction in accidents equates to £4.6m (2002 discounted market prices) in benefits.

1.10 Accessibility and social inclusion

Accessibility and social inclusion benefits are among the key objectives for the Borders Railway. Significant impacts have been identified in the following areas:

- ▶ Public transport network coverage
- ▶ Access to Edinburgh's labour market
- ▶ Social inclusion
- ▶ Severance
- ▶ Option and non-use values.

1.10.1 Public transport network coverage

It is expected that accessibility and social inclusion benefits will be felt along the entirety of the new Borders Railway line. The regions of the Scottish Borders and Midlothian comprise a population of nearly 200,000 yet currently have no direct access to a railway. This is in contrast to areas such as the Highlands, with a population of 220,000⁴ and 58 passenger stations⁵. The access to a railway will be particularly significant for the 21%⁶ of the population of the Borders who do not have access to a car.

The introduction of a railway to Midlothian and the Scottish Borders will also provide a significantly more robust public transport service than is currently in place via commercial bus operators. Under existing arrangements, bus operators are under a statutory obligation to give only seventy days notice in the event of withdrawing local bus services. The higher degree of certainty that passengers place on the robustness of rail services to change, will assist in strengthening modal shift towards a more stable public transport service to Edinburgh and the surrounding area.

Journey time isochrones have been produced to provide a graphical representation of the improvements in the public transport network coverage. Figures 2, 3 and 4 show the journey time isochrones for Galashiels, Gorebridge and Eskbank with and without the new Borders Railway line. It can be clearly seen that the introduction of Borders Rail significantly increases the areas that can be reached by public transport within given time bands.

These journey time isochrones have been compiled with reference to data from the Transport Model for Scotland (TMfS:07) and public transport timetables. The analysis assumes that each public transport journey by rail or bus comprises travel between origin and the bus stop or railway station followed by a wait for the desired service. Taken together, it was estimated that it would take 10 minutes from commencing the journey and boarding the desired service and that there would be a 10 minute walk after alighting from the public transport service to the ultimate destination. Thus, for the purpose of the public transport journey time isochrones, it has been assumed that each public transport journey takes 20 minutes more than the in-transit time derived from published timetables.

⁴ ONS, Mid year population estimates, 2010.

⁵ Scottish Transport Statistics 2011.

⁶ Scottish Neighbourhood Statistics, www.sns.gov.uk.

Figure 1: Galashiels Public Transport Journey Time Isochrone Comparison



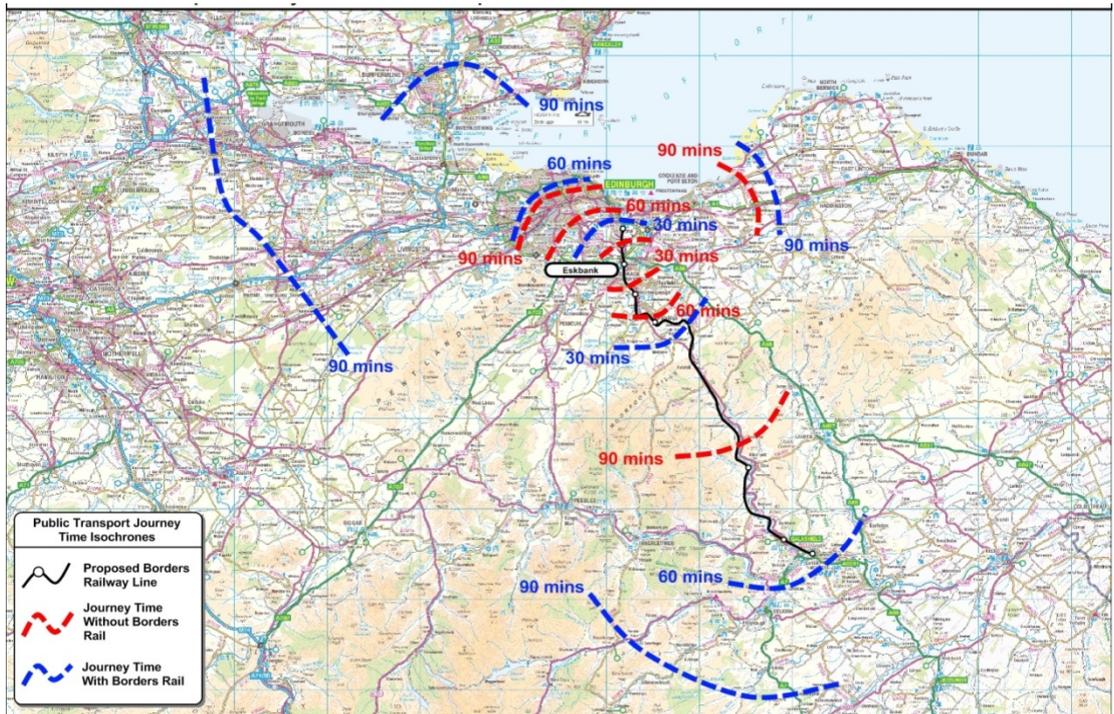
Source: Transport Model for Scotland:07.

It can be seen from the figure above that without Borders Rail those living in Galashiels would not been able to access Edinburgh City Centre by public transport within a reasonable commuting time of 90 minutes, but with the introduction of the railway this is now possible, with those making the journey reaching the outskirts of Edinburgh within 60 minutes, including the assumed total of 20 minutes' walk time.

Figure 2: Gorebridge Public Transport Journey Time Isochrone Comparison



Source: Transport Model for Scotland:07.

Figure 3: Eskbank Public Transport Journey Time Isochrone Comparison

Source: *Transport Model for Scotland:07*.

As shown by figures 3 and 4, the Borders Railway has significant accessibility benefits in both directions along the line. The journey time isochrones in the figure above show that it would take longer than 90 minutes to travel from Eskbank to Galashiels without Borders Rail, but after the introduction of the new services the journey can be made in less than 60 minutes. In the opposite direction the introduction of rail services significantly reduces the journey time to Edinburgh City Centre and substantially increases the distance that could be travelled within 90 minutes.

1.10.2 Access to Edinburgh's labour market

The accessibility benefits are likely to be the greatest in the Scottish Borders, where the existing level of public transport provision is sparse compared to the levels in Midlothian and areas close to Edinburgh and where journey times will be greatly improved by the new railway. They are also likely to be significant as the railway substantially improves access to Edinburgh's labour market and key regional market. A large majority of Borders' residents (81.3%⁷ of the resident working age population) also work in the region, where the median weekly earnings for full time workers in the Scottish Borders Council area is ranked among the lowest in Scotland, at around 90% of the national average⁸.

Table 12 shows an employee classification for the Scottish Borders, Midlothian, City of Edinburgh and Scotland as a whole. It can be seen that Midlothian and the Scottish Borders are less well represented in the higher earning professions, particularly in comparison with the City of Edinburgh. Consequently, provision of a fast, reliable and efficient rail service will provide people in the Borders and Midlothian area access to employment in high value sectors with higher average wages, providing greater opportunities for social mobility. Conversely, it will ease pressure on the Edinburgh labour market by helping mitigate against the effects of planning constraints around Edinburgh, by making available more affordable housing within commuting distances.

⁷ Annual Population Survey 2011.

⁸ Annual Survey of Hours and Earnings, 2011, Office for National Statistics.

Table 11: Employee classification, 2011

	Scottish Borders	Midlothian	City of Edinburgh	Scotland
Managers, Directors and Senior Officials	7.7%	7.2%	7.6%	8.2%
Professional occupations	18.2%	17.2%	25.4%	18.5%
Associate professional and technical occupations	12.8%	13.1%	19.5%	13.4%
Administrative and secretarial occupations	9.9%	13.5%	10.6%	10.7%
Skilled trades occupations	13.3%	13.1%	7.5%	11.6%
Personal service occupations	8.9%	11.1%	8.3%	9.6%
Sales and customer service occupations	6.8%	9.8%	8.6%	9.2%
Process and plant machine operatives	8.4%	4.9%	3.4%	6.6%
Elementary occupations	13.2%	10.1%	8.8%	11.7%

Source: Annual population survey.

Tables 13,14 and 15, below, show the impact of Borders Rail on the number of jobs that will be accessible to those living in Galashiels, Gorebridge and Eskbank. These estimates have been calculated through the same methodology as that used to create the journey time isochrones provided in section 1.10.1. They show that the people of Galashiels will see an 89% increase in the number of jobs accessible to them within 90 minutes. The time bands below include 10 minutes of travel to the train station and 10 minutes to get off at the train station and walk to the final destination.

Table 12: Number of jobs accessible from Galashiels, with and without Borders Rail

Galashiels				
	Without Borders Rail	With Borders Rail	Change	% Change
Jobs 0 - 30mins	6,543	12,144	5,601	86%
Jobs 30 - 60mins	7,870	24,927	17,058	217%
Jobs 60 - 90mins	46,733	78,646	31,913	68%
Total Jobs 0 - 90 Mins	61,146	115,718	54,572	89%

Source: Transport Model for Scotland:07.

Table 13: Number of jobs accessible from Gorebridge, with and without Borders Rail

Gorebridge				
	Without Borders Rail	With Borders Rail	Change	% Change
Jobs 0 - 30mins	1,618	11,260	9,641	596%
Jobs 30 - 60mins	15,234	67,720	52,486	345%
Jobs 60 - 90mins	128,578	266,820	138,241	108%
Total Jobs 0 - 90 Mins	145,431	345,800	200,369	138%

Source: Transport Model for Scotland:07

Table 14: Number of jobs accessible from Eskbank, with and without Borders Rail

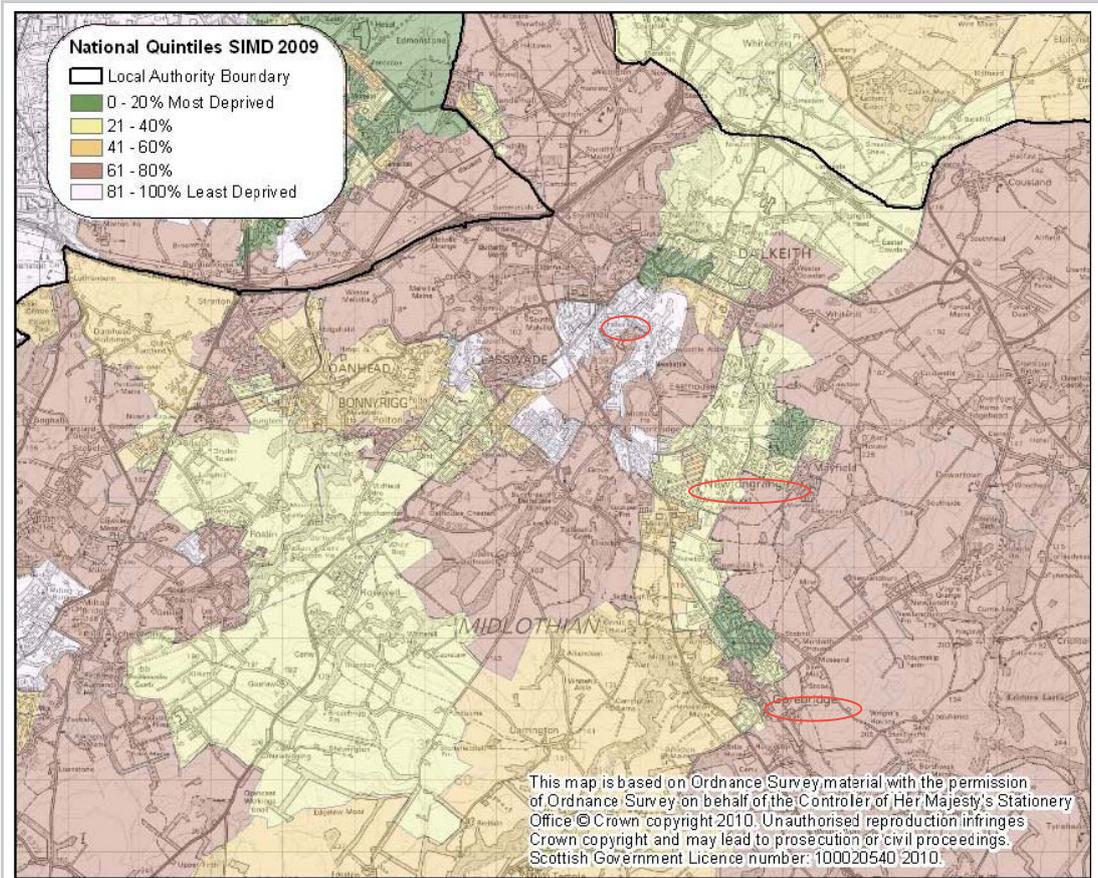
	Eskbank		Change	% Change
	Without Borders Rail	With Borders Rail		
Jobs 0 - 30mins	5,722	19,569	13,846	242%
Jobs 30 - 60mins	22,362	152,203	129,841	581%
Jobs 60 - 90mins	173,358	254,876	81,518	47%
Total Jobs 0 - 90 Mins	201,442	426,648	225,206	112%

Source: Transport Model for Scotland:07.

1.10.3 Social Inclusion

The accessibility benefits will not be as significant in Midlothian, due to the better existing levels of public transport, but there will still be improved access to important labour and regional markets. The Borders Railway will also facilitate opportunities for greater levels of social inclusion in the area. In particular, there will be better links for areas defined as deprived by the Scottish Index of Multiple Deprivation (SIMD). As shown by Figure 5 below, in the area between Dalkeith and Gorebridge there are 3 zones that are within the 20% most deprived in Scotland. These are in close proximity to the new Eskbank, Newtongrange and Gorebridge stations and it can be seen that the new Borders Railway will offer greater accessibility for those living in these areas.

Figure 4: Levels of deprivation in the overall Scottish Index of Multiple Deprivations (SIMD) 2009 by National quintiles (0-20% band of deprivation shows 20% most deprived datazones in Scotland)



1.10.4 Severance

The construction of the new railway may have knock on impacts on existing transport provision. After the closure of the original railway line sections of the railway were converted to pedestrian and cycle paths. Consequently, the new railway will result in the loss of these paths; however, there are plans for alternatives where possible. Furthermore, in both Galashiels and areas in Midlothian there have been works completed to construct paths in advance of the railway to ensure integration on day one of operation.

1.10.5 Option and Non-use values

Accessibility and social inclusion benefits are difficult to monetise and are therefore not included in the standard economic appraisal indicators. However, there is emerging research into option and non-use values in an attempt to quantify accessibility and social inclusion benefits. An option value is the willingness to pay to preserve the option of using a transport service for trips not yet anticipated or currently undertaken by other modes, over and above the expected value of any such future use. For example, a car-owner may value the ability to use the railway service when for whatever reason they cannot drive or their car is unavailable. A non-use value is a value that may be placed on the continued existence of a good regardless of any possibility of future use by the individual in question. For example, a resident in a village may derive a benefit from the knowledge that the elderly can use public transport to access the facilities they need. In the case of Borders Railway it is estimated that there are 30,000 households within 2 km of any one of the stations, deriving option and non-use values equalling £102m (2002 discounted prices) over the 60 year appraisal period. While these estimates are tentative and based on only a few studies, they highlight the significance of the potential accessibility and social inclusion benefits arising from the Borders Railway.

1.11 Integration

Overall, the Borders Railway is expected to provide positive integration benefits. These will take the form of improved ticketing, utilising the 'One Ticket' system developed by the South East of Scotland Transport Partnership. There will also be new park and ride facilities at Tweedbank, Eskbank, and Shawfair and plans for a public transport interchange at Galashiels.

The Galashiels transport interchange (delivered by Scottish Borders Council) will be the entrance to the Scottish Borders from the Borders Railway. This interchange will be a hub with bus connections to all other parts of the Scottish Borders ensuring wider regional access to the railway. The councils have also formally committed to integrating the bus services with the railway timetable.

The project fits with local, regional and national transport policy objectives, as well as with the wider policy context. It provides increased accessibility to disadvantaged sections of the community, improves access for rural areas, and helps meet the Scottish Government's ambition of spreading the benefits of growth throughout the regions as expressed in the Government Economic Strategy.

1.12 Calculate economic appraisal indicators

The standard appraisal indicators are presented in the table below in standard discounted 2002 market prices.

Table 15: Appraisal indicators for the Borders Railway

	Standard results incl. environment and safety	Including wider economic benefits
Present Value of Benefits (PVB)	£75.9m ¹	£101.7m
Present Value of Costs (PVC)	£139.2m	£139.2m
Net Present Value (NPV)	(£63.3m)	(£37.5m)
Benefit to Cost Ratio (BCR)	0.5	0.7

¹ Please note this value differs from that in table 8 as it includes the environmental benefits (£1.6m) and safety benefits (£4.6m).

The BCR is the ratio of the Borders Railway's monetised economic and social benefits against its monetary costs; it is therefore a useful indicator of the rate of return on the investment in public funds.

In the standard results, Borders has an overall NPV of -£63.3m and BCR of 0.5. Should the wider economic benefits be realised the business case improves, with the BCR increasing to 0.7.

1.13 Sensitivity testing

As with all major capital investment projects, the forecast benefits for the Borders Railway are subject to a degree of risk and uncertainty. Consequently, the benefits of the Borders Railway have been subject to a wide ranging risk analysis, involving variations on patronage levels, fares, housing in the Shawfair region and the timetable. The inclusion of option values, as calculated in section 1.10, is also provided as a sensitivity. The sensitivity tests are outlined below, with the results summarised in Table 16.

Patronage Levels – As detailed in section 1.7.3 the core scenario is based on a central passenger forecast coming from two different approaches. This sensitivity assesses the impact of the Borders Railway if the higher level of demand, i.e., the stated preference demand forecast, is achieved. For this level to be reached there would need to be approximately 250,000 extra annual journeys, i.e. a 39% increase from the central forecast.

Fares – The core scenario assumes fares growth of RPI+1%. This sensitivity test assesses the impact on the results of assuming fares grow by RPI.

Housing – The area of Shawfair located to the south east of Edinburgh is the site of a proposed large development of approximately 4000 new houses, alongside economic sites. However, delivery of these new houses has stalled during the recent economic recession and current indications are that the building work will not commence until 2013 at the earliest. Consequently, for appraisal purposes, this sensitivity analysis delays the forecast demand arising from the Shawfair area by 5 years, removing approximately 60,000 return trips from each of the first 5 years demand levels.

Demand Growth Cap – In the core scenario demand is capped in 2027. The demand cap exists for two reasons; firstly to reflect our belief that demand has to saturate at some point as otherwise the forecast would become unrealistically large. Secondly, to reflect the uncertainty around whether the relationships that underpin the forecasting methodology will continue indefinitely, this sensitivity extends the demand cap to 2032, allowing an extra 5 years growth in demand.

Timetable – The latest timetabling analysis indicates a fastest journey time of 56 minutes from Tweedbank to Edinburgh, while a fastest end to end journey time of 60 minutes can be achieved in the opposite direction during the morning peak and off-peak period, with this

journey time falling to 57 minutes in the evening peak. There is still an aspiration to reach an end to end journey time of 55 minutes in each direction. This sensitivity analysis provides the results for a scenario where this aspiration is met.

Option Values – As highlighted in section 1.10.5, option and non-use values have been highlighted as a potential way of quantifying some of the accessibility and social inclusion benefits. However, as the evidence for the monetary values is relatively immature, the option and non-use values are treated as a sensitivity.

Table 16: Summary of sensitivity analysis

	BCR	NPV (£m)
Core Scenario	0.5	(£63.3m)
Patronage levels	0.9	(£16.7m)
Fares	0.7	(£49.9m)
Housing – Shawfair	0.5	(£70.3m)
Demand growth cap	0.6	(£44.8m)
Timetable	0.7	(£34.5m)
Option values	1.3	£38.6m

1.14 Appraisal against Investment Objectives

1.14.1 Performance against Investment Objective 1 – Promoting accessibility to and from the Scottish Borders and Midlothian to Edinburgh (including the airport) and the central belt

The project continues to perform well in improving accessibility, with two trains per hour in each direction providing regular and reliable access to Edinburgh city centre.

1.14.2 Performance against Investment Objective 2 – Foster social inclusion by improving access to key services for those without access to a car

Approximately 21%⁹ of households in the Scottish Borders do not have access to a car. The Borders railway alongside projects such as the public transport interchange at Galashiels enables those without a car to access key services and markets. This project contributes positively to this objective.

1.14.3 Performance against Investment Objective 3 – Preventing decline in the Borders population by securing ready access to Edinburgh’s labour market

By delivering a fastest end to end journey time of 56 minutes this project still performs well against this objective.

Between 2001 and 2011 the City of Edinburgh saw a 10.3% growth in population, in comparison to the 5.8% and 1.8% growth in the Borders and Midlothian respectively. The new train service will provide those living in the Borders and Midlothian the opportunity to commute into Edinburgh and readily access the Edinburgh labour market. This is likely to improve the attractiveness of living in the Borders and Midlothian and will help ease constraints on labour market growth facing the City of Edinburgh due to planning constraints.

1.14.4 Performance against Investment Objective 4 – Creating modal shift from the car to public transport

The Borders Railway meets this objective successfully as the opening of the railway is forecast to reduce the number of annual car trips along the route approximately by 530,000

⁹ Scottish Neighbourhood Statistics, www.sns.gov.uk.

and the forecast number of annual return trips in the railway's opening year is approximately 650,000.

1.14.5 Updated appraisal results for Borders Railway

The table below presents the updated performance of the options against the Transport Planning Objectives, given the results of the updated detailed assessment set out above.

Table 17: Performance against Investment Objectives

	Borders Railway
Promoting accessibility to and from the Scottish Borders and Midlothian to Edinburgh (including the airport) and central belt	++
Foster social inclusion by improving access to key services for those without access to a car	+
Preventing decline in the Borders population by securing ready access to Edinburgh's labour market	++
Creating modal shift from the car to public transport	++
Net benefits (£m)	(£63m) to (£38m)
BCR	0.5 to 0.7

As Table 17 sets out, the performance of Borders Railway against the investment objectives has remained consistent. It is clear, however, that the assessment against the narrow value for money measure has significantly worsened. This is due in the main to a change in the application of the demand growth cap and the revised values of time, but also due to an increase in the end-to-end journey time.

1.15 Conclusions

In this Investment Case the rationale for intervention set out in the Strategic and Outline Business Cases is reviewed and considered to remain valid. The original objectives and vision remain consistent with what was set out in the previous Business Cases.

The analysis of the Borders Railway has been reviewed and updated. In general, the performance against the investment objectives remains unchanged; however, the more narrow economic appraisal has substantially worsened, with the BCR falling to 0.5. However, it is important to note that three out of the four investment objectives are focussed on accessibility and social inclusion, yet these related benefits are not taken into account in the core economic appraisal. As highlighted in section 1.10 the Borders Railway is expected to increase accessibility and social inclusion in the Scottish Borders and Midlothian significantly with the Borders Railway securing access to Edinburgh's labour market. The accessibility and social inclusion benefits are further highlighted by the estimated option and non-use values, at £102 million (2002 discounted prices), which when included as a sensitivity increase the BCR to 1.3.

2. Commercial case

This section has been removed due to commercially sensitive information contained, release of which is likely to prejudice substantially the commercial interests of Scottish Ministers in light of the commercial deal in place with Network Rail for the delivery of the project and in the run up to the letting of the next ScotRail franchise.

3. Financial case

This section has been removed due to commercially sensitive information contained, release of which is likely to prejudice substantially the commercial interests of Scottish Ministers in light of the commercial deal in place with Network Rail for the delivery of the project and in the run up to the letting of the next ScotRail franchise.

4. Management case

4.1 Borders Railway

This section of the FBC sets out the actions required to ensure the successful delivery of the Borders Railway in accordance with best practice and in line with the selected delivery strategy.

As outlined in the Investment Case, the objectives of the Borders Railway reflect the strategic vision of the Scottish Government. Borders Railway is subsequently included as a committed infrastructure project in TS's Corporate Plan over the next three years (2012 – 2015). The Management Case sets out the roles and responsibilities of the Project Sponsor (TS) the Project Delivery Partner (NR) and the project partners (Local Authorities).

4.2 Roles of the principal partners

The key organisations with responsibility for funding and the delivery of the Borders Railway are detailed in Table 18.

Table 18: Roles of the principal partners

Organisation	Summary roles
Transport Scotland (TS)	As the national transport agency for Scotland TS is the client, project sponsor and funder for Borders Railway. TS will specify the desired outputs through the 'Client Requirements'. TS owns and manages the business case for Borders Railway and specifies outputs in terms of train service specification, passenger demand forecasts and dates for completion of infrastructure capability to deliver the requirements. TS will give direction and make decisions on matters of variations to the Client Requirements. TS will secure the appropriate rolling stock to meet the needs of the Client Requirements and will appraise NR of any changes to train service specification, assumptions and planned timescales for delivery. TS will procure funds and manage changes to franchise agreements to accommodate the Borders Railway outputs and to accommodate rolling stock deployment. TS also owns the output risk for the Borders Railway.
Funder & Project Sponsor	
Network Rail (NR)	As the owner and operator of Britain's rail infrastructure NR will act as delivery partner for the Borders Railway and own the Project Delivery Plan. Following transfer of the Authorised Undertaker functions of the Waverley Railway (Scotland) Act 2006 from TS and SBC, NR will consult with TS, the train operators and other key stakeholders on its plans for delivery of the NR Programme to achieve the Key Output dates. NR will provide finance for the project via the NR Regulatory Asset Base (RAB).
Delivery Partner	
The Office of Rail Regulation (ORR)	As the regulatory body for rail matters in Britain the ORR will determine NR's obligation for the Borders Railway including those required to deliver the NR Programme. ORR will also approve commercial submissions and the associated delivery plan. This approval will include confirmation of NR obligations which will be customer reasonable requirements which will be enforced. The approval will also include determination of efficient prices for the works and incentive arrangements for the amounts to be added to the RAB. ORR will, through the Reporters, carry out review of the commercial submissions and will subsequently provide a draft report which will be copied to NR and TS. ORR will carry out a monitoring role and hold NR to account for delivering its obligations which will include progress on delivering its obligations in respect of the Borders Railway; ensuring NR's approach is consistent with its Network Licence; intervening where necessary if it appears that NR is unlikely to meet any of its obligations; take necessary enforcement action against NR in line with the ORR enforcement policy; and determination of whether any changes to the delivery plan for the Works should be approved.
Safety & economic regulator	
Scottish Borders Council (SBC)	As lead partner of the Waverley Railway Partnership (WRP), SBC remain a key partner in the delivery of the Borders Railway. SBC along with the other two councils are a part funder of the project with a profile of annual contributions set out in the Restated Minute of Agreement with TS. SBC in its role as a planning authority will require to liaise regularly with NR in providing the necessary consents for elements of the Railway Works (i.e., roads, structures). SBC also employs an Environmental Clerk of Works to ensure the Environmental Requirements of the 2006 Act are met by NR throughout the projects design and build phases. SBC will continue to be funded in employment of a Council Liaison Manager (CLM) to maintain strong and positive links between the project and the local community, and between the councils, NR and TS. The CLM will also ensure planning authorities (both SBC & MLC) approach the works in an efficient manner and expedite design approvals promptly.
Part funder & key stakeholder	
	SBC have undertaken the management of the land assembly on behalf of TS since

Organisation	Summary roles
	<p>2008, and are currently continuing to perform this role. It is the expectation of all parties that NR and SBC enter into an agreement to allow completion of the land assembly works phase. The terms of the agreement are currently under discussion between NR & SBC.</p> <p>SBC are formally committed to ensuring public transport systems (including local bus services and walking/cycling routes) are integrated with services that will be provided by the railway.</p>
<p>Midlothian Council (MLC)</p> <p>Part funder & key stakeholder</p>	<p>As part funder of the project MLC will remain a key partner in the delivery of the Borders Railway.</p> <p>Similar to SBC, MLC in its role as a planning authority will require to liaise regularly with NR in providing the necessary consents for elements of the Railway Works (i.e., roads, structures)</p> <p>MLC are formally committed to ensuring public transport systems (including local bus services and walking/cycling routes) are integrated with services that will be provided by the railway.</p>
<p>City of Edinburgh Council (CEC)</p> <p>Part funder & key stakeholder</p>	<p>CEC are also committed to provide a financial contribution to the project, and remain a key stakeholder in providing a rail connection between the city, Midlothian and the Scottish Borders. However, as no parts of the new infrastructure are located within the CEC area, there is no planning interface with the CEC Planning Authority.</p>

4.3 Governance structure

As part of the Transfer Agreement between The Scottish Ministers and NR (in relation to the role of Authorised Undertaker for the Waverley Railway (Scotland) Act 2006) both parties have committed to comply with an agreed Governance Protocol for the Borders Railway.

This Protocol defines the five governance principles agreed between TS, NR and the ORR as follows:

Table 19: Governance principles

1. Four weekly reporting	The Project Delivery Group (which will consist of NR and TS officials) will meet on a four weekly basis to review progress made in that period. A period report will be produced by NR ahead of these meetings in a pre agreed format.
2. Change control	An agreed pro-forma is included in the Governance Protocol. The specific change control process remains under discussion between TS and NR.
3. Meetings schedule	<p>An agreed schedule of meetings is outlined in the Protocol. In addition to the Project Delivery Group, the following main meetings will be scheduled (although it is recognised a number of subsidiary, issue focused meetings will also be required):</p> <ul style="list-style-type: none"> ▶ ORR Project review meeting Quarterly frequency, with report produced in advance of meeting by NR. Representatives from TS, NR and ORR required ▶ Key stakeholder meeting Quarterly frequency. Representatives from NR, TS, SBC, MLC and CEC invited to attend
4. Escalation procedure	An agreed escalation procedure has been defined for instances where issues cannot be resolved by the Project Delivery Group. A flowchart illustrating the steps of escalation is appended to the governance protocol
5. Communications	A Communications Protocol agreed between TS & NR sets out the principals of communications responsibilities for the project. NR will be responsible for the communication with external stakeholders about delivery of the project, and will own the Communications Plan. TS are responsible for communicating

the strategic importance of the investment within a national context.

4.4 Risk Management

NR will be responsible for risk management on the Borders Railway and will own the Risk & Opportunity Management Plan. Allocation of risks that TS will retain (for example rolling stock, extreme weather events) form part of the commercial discussions currently underway. Risk allocation principles are currently under discussion with NR. Negotiations are nearing completion with the final risk transfer still to be agreed.

4.5 Transport Scotland Project Sponsor

The following responsibilities will be retained by TS's Project Sponsor:

- ▶ Ownership of the Final Business Case
- ▶ Manage and monitor commercial arrangements with NR
- ▶ Lead on the political interface with The Scottish Government
- ▶ Provide strategic guidance to the project
- ▶ Focuses on realisation of benefits
- ▶ Provides timely decisions
- ▶ Manages relationships with influential stakeholders (notably ORR and Councils)
- ▶ Provide assurance to TS Board that governance arrangements, policies and acceptable project management practices are being applied
- ▶ Promotes ethical working and culture of trust
- ▶ Ensure continuity of sponsorship.

4.6 Network Rail Project Director

The key areas of responsibility for the Project Director are outlined as follows:

- ▶ Lead project team to deliver the business and customer objectives agreed, whilst confirming compliance with appropriate company governance, standards and procedures.
- ▶ Achieve the project outturn and margins as agreed with the Project Director.
- ▶ Develop an appropriate strategy for the development and delivery of the project works scope.
- ▶ Identify priority opportunities within the project and lead promotion and sharing of best practice between projects.
- ▶ Monitor planning so that it covers cross project requirements and supports effective delivery of contracted obligations.
- ▶ Develop and improve relationships with key stakeholders, customers and suppliers.
- ▶ Develop and manage project team, monitoring adequate resources available to deliver a flexible, competent, skilled and effective workforce at all times.

- ▶ Contribute as a member of the project organisations senior management team.
- ▶ Lead compliance in corporate health, safety, quality and environment processes for the project.
- ▶ Implement relevant parts of the renewals plan.
- ▶ Act upon and discharge and discharge of, all CDM obligations for projects as directed.
- ▶ Sponsor audit of project and project documentation, activities, processes and systems.
- ▶ Lead the communication of key issues for the function.
- ▶ Lead the communication of key issues for the project supporting effective delivery, performance measurement and management of change. This should encompass where appropriate communications with outside bodies.

4.7 Decision Maker Roles and Limits of Delegated Authority

Table 20: Decision makers and delegated authority

Decision maker	Role
TS Chief Executive	The Chief Executive of TS, as Accountable Officer, is responsible for decisions on the Agency's capital investment programme. The CE is supported by the TS Investment Decision Making (IDM) board in key financial and programme decisions on TS major capital and resource investment programme.
TS Board/IDM	The Board is responsible for ensuring that the Chief Executive is properly advised and supported in the fulfilment of his role as Accountable Officer.
Project Delivery Group (PDG)	The Project Delivery Group is the body charged with monitoring the progress of the Borders Railway measured against the requirements set in the Delivery Plan. The overarching responsibility of the PDG is to monitor progress and budget on the Project and that the sponsor gives clear direction to the NR Project Director and the NR Borders team.
TS Director of Rail	Director responsible for the ScotRail franchise, the funding relationship with NR and the delivery of all TS's Rail Projects. Director of Rail will also act as the Senior Responsible Owner (SRO) following the hand over of the delivery role to NR.
Borders Railway Sponsor	Person responsible for heading up TS's Rail Projects Team reporting to the Director of Rail.
Borders Railway NR Project Director	The role of the Borders Railway Project Director is to lead and manage the Project with particular responsibility for ensuring that the governance, commercial and contractual arrangements of the sub projects are appropriate, and that delivery arrangements are effective in order to deliver the project on time, on budget and to the required specifications.
Borders Railway Sponsorship Manager (B3 Level)	The role of the Sponsorship Manager is to manage TS sponsor interests including: <ul style="list-style-type: none"> ▶ Project Management within TS of the Target Price ▶ Benefits Realisation ▶ Integration with Franchise (current and future TOC) ▶ Risk Management ▶ PDG ▶ Briefing and correspondence

4.8 Project schedule

The proposed time line for the project is set out in the table below.

Table 21: Project timeline

Activity	Date
Construction start date	30 Sept 2012
Construction finish date	14 June 2015
Operation commence	6 Sept 2015

The following are the agreed milestones as detailed in the Project Delivery Plan.

Activity	Date
1. Commence mining remediation	15th November 2012
2. Commence main works site mobilisation	31st January 2013
3. GRIP 4 Stage Gate Review	30th April 2013

4. Commence track laying	29th June 2014
5. Route available for driver training	14th June 2015
6. Stations ready for handover to TOC	14th June 2015
7. Service Commencement by TOC	6th September 2015

4.9 Stakeholder & Communications

4.9.1 Communications

As described in Section 4.3, a Communications Protocol is in place between TS and NR. An agreed NR Communications Plan is also in place for the project, and is consistent with the principles set out in the protocol.

4.9.2 Stakeholders

NR's Communications Plan (CP) sets out the priority stakeholder groups as the primary target audience during the construction phase. The objective of the CP will be to ensure those most affected and central to the project are properly informed and that resources are concentrated in those areas.

Table 22: Priority stakeholder group

Borders Railway – Priority Stakeholder Groups (Construction Phase)

Landowners & Affected Parties

Community

Elected Representatives

Project partners – SG/TS/Councils

Media (national & local)

Influencers

Statutory Bodies

Environmental Groups

Campaign Groups

Transport and Industry

4.10 Outline arrangements for Post Project Evaluation

4.10.1 Post Implementation Review (PIR)

These reviews ascertain whether the anticipated benefits have been delivered compared with expectations and are timed to take place on completion of the project and commencement of passenger services. The PIR will be a key input into Gateway Review 5: Benefits Evaluation.

4.10.2 Project Evaluation Review (PER) – At Gateway 5

This review will appraise how well the project was managed and delivered compared with expectations and are timed to take place in the form of lessons learned outputs and shared within TS's appropriate directorates (i.e., Rail and MTRIPS). This exercise will take place following Stage 5 of the Gateway Review: Benefits Evaluation.

4.10.3 Benefits Realisation Plan

The Borders Railway project is a means to an end and not simply an end in itself. The success of the project will be judged in part on the successful delivery of the project outputs but ultimately on the successful realisation of the benefits set out in the Investment Case.

The scope of any benefits realisation plan covers the life of the benefit from its initial identification through the project and will continue to measure the benefits throughout the products life.

The Borders Railway Benefits Realisation Plan (BRP) sets out the project benefits and the processes and actions required to ensure they are successfully realised, i.e.:

- ▶ How they will be quantified and measured
- ▶ What systems and processes will be used to track progress
- ▶ How benefits realisation will be achieved.

As owner of the Borders Railway Business Case, TS is responsible for benefits realisation. The Project Sponsor owns and oversees the Borders Railway BRP on behalf of TS, while day to day monitoring and management of the plan is the responsibility of the Borders Railway Sponsorship Manager.

The Borders Railway BRP is periodically reviewed using a risk based approach. TS maintains and monitors a register of identified risks to successful benefits realisation, this risk analysis informs the Sponsor interface with the Project Delivery Group.

4.11 Conclusion of Management Case

The key roles for the Borders Railway project will be as follows:

- ▶ TS will be the client, project sponsor and principal funder. TS will also be responsible for provision of the appropriate rolling stock.
- ▶ NR will deliver the infrastructure of the Project in accordance with the Delivery Plan and the New Funders Works Requirements.
- ▶ The Office of Rail Regulation will determine the efficient cost of the NR programme for addition to the Regulatory Asset Base (RAB) and scrutinise the deliverability of NR's programme. The ORR approval criteria is set out in the ORR's "Investment Framework consolidated policy and guidelines", dated October 2010.
- ▶ The Council's will continue to support the delivery of the Project, provide a funding contribution, and assist NR in ensuring the planning consents required are delivered within pre-agreed timescales to assist project milestones.

The management case has demonstrated that a robust governance and management structure is in place to ensure the delivery of the Borders Railway project. This will be further refined as part of TS's review process.

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