

SCOTLAND'S
railways



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December 2006

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Contents

Foreword	
1. Introduction	3
2. Vision	5
3. Progress so far	7
4. The rail network in Scotland – key facts	13
5. Evidence base	17
6. Challenges ahead	19
7. Strategic outcomes	21
8. Implementation plan	27
9. Annex – High Level Output Specification process	36

Foreword by Transport Minister

This is an exciting and challenging time for the rail industry in Scotland. Transfer of rail powers to Scottish Ministers and the creation of Transport Scotland mean Government needs a vision for rail in Scotland for the next 20 years and beyond.

Scotland's geography combines densely populated urban areas with more rural settings. Finding appropriate transport solutions to meet these differing needs is a challenge to us all. I recognise that rail plays a significant role in developing our integrated transport system. I am clear on the strengths of the rail network and I want to make the most of those strengths.

Rail is uniquely placed to carry high numbers of people over long distances. It connects people to jobs, links communities and makes services accessible across the country. I want to build on the significant improvements we have already made to rail services in recent years – the opening of the Larkhall-Milngavie route; a high quality franchise; and new services. I want to see a successful expansion of the network with delivery of the major investments now underway. *Scotland's Railways* sets out how these lay the foundations for a rail network and services for the coming years that can encourage many more people to make the shift from the private car to taking the train and many more businesses to shift from transporting goods by lorry to the train.

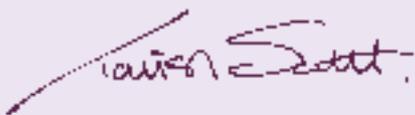
As I am determined to see a reduction in the harmful emissions in our environment, I am committed to encouraging more of that modal shift. Rail can contribute fully to our policies on Sustainable Development and Climate Change. This means offering a world class service on increasingly fuel efficient trains, a service that is reliable, punctual and convenient, integrating with our buses, trams, ferries and encouraging healthy lifestyle choices such as walking and cycling. A service that is affordable for Scots and visitors alike.

I want our rail network to continue to improve over the next 20 years. This document sets out our plan for potential interventions over the short, medium and longer term that will deliver that vision for rail. I want to focus on making our journeys faster, connecting our major towns and city regions and improving the quality of the total journey experience.

In the longer term, I seek solutions that go beyond that. It will become increasingly important to our economy to have stronger connections between Scotland's cities and between Glasgow and Edinburgh and south of the border. We will examine the feasibility and affordability of a high speed rail link.

It is clear that any potential improvements to the rail network come with significant cost. I look to the industry to work with government and other partners to contribute to ensuring that the best rail solutions can be delivered in a cost effective and efficient way.

Scotland's railways are one of our most valuable assets. This document seeks to make the very best of that resource now and in the future. I commend it to you.



Tavish Scott MSP
Transport Minister



Chapter 1

Introduction

1. Introduction

- 1.1 Rail has an important contribution to make towards achieving a safe, integrated, effective and efficient transport system for Scotland. Often offering fast journey times, the rail network provides a reliable and demonstrably attractive alternative to other modes of transport for example road, which will become more congested over the next 10-20 years and air. The rail network in Scotland supports economic growth, provides a quality inter-urban link between city regions in Scotland as well as links to major English cities and connects people to jobs and families, thus supporting local economies.
- 1.2 Rail is best at providing:
 - Fast long-distance passenger services between our major urban centres.
 - High quality commuter services into the major areas of employment, education and leisure activities.
 - Rail freight services for regular high-volume and generally long distance flows.
- 1.3 Rail devolution is the biggest transfer of power to Scotland from Westminster since 1999. It has given Scottish Ministers the power to set the vision for the railways in Scotland and the funding to make it happen through Network Rail and the ScotRail franchise working in partnership with other freight and passenger operating companies. Approximately £358 million per annum was transferred to Scottish Ministers to cover all the additional transport responsibilities devolved with effect from 1 April 2006.



1.4 Our primary aims in *Scotland's Railways* are to:

- Support our high level objective to promote economic growth by focusing on our rail network moving large volumes of people quickly and reliably within and between our city regions as a priority.
- Support our high level objective to protect the environment and improve health by recognising the role of rail as an integral part of Scotland's National Transport Strategy and the contribution rail makes to a sustainable, efficient and effective transport system which minimises the impact of travel on the environment. We will do so with full regard to Scotland's Sustainable Development Strategy *Choosing Our Future* and to Scotland's Climate Change Programme *Changing Our Ways*.

1.5 The purpose of *Scotland's Railways* is to:

- Summarise the evidence base relating to our railways.
- Set out the key challenges ahead.
- Set out our vision for rail in Scotland.
- Set out how we will deliver that vision.

Chapter 2

Vision



2. Vision

2.1 Scotland's National Transport Strategy promotes sustainable economic growth and sets the context for the development of sustainable transport solutions for Scotland over the next 20-25 years. The key aims of that document are to contribute to economic growth through the following strategic outcomes:

- Improving journey times and connections.
- Reducing emissions.
- Improving quality, accessibility and affordability.

2.2 Rail has a central role in Scotland's National Transport Strategy. Our vision for the railway in Scotland is that it should provide a safe, reliable customer focused service that supports our economy and delivers wider social inclusion and environmental aspirations. We recognise that our railway cannot be a solution for all of Scotland's transport needs. We recognise the key strengths of the railway and will maximise these to develop the rail network where that is the best long term solution. Building on the work we are already doing, rail will:

- Offer world class train services which connect our city regions and major towns, providing journey times and quality of service that are competitive with car and air.
- Provide access to inter-urban services through high quality interchange stations that link with feeder rail services from intermediate stations and offer easy transfer from car, bus, tram, subway, ferry, cycle and walking.
- Make commuter train services attractive to passengers by ensuring that the journey to work is a high quality, reliable travel option and by ensuring that our rolling stock choices take account of environmental considerations, including air quality and noise emissions.
- Support heavily loaded freight trains carrying an increasingly wide range of products with effective interchange to road and sea.
- Achieve a rail industry that delivers efficiently and effectively to support our aims and vision.



The City Regions are expected to drive growth in Scotland which is expected to continue to undergo important economic and demographic change. These changes will have important implications for transport in terms of commuting and interurban journeys, as well as the movements of freight required to support the City Regions.

Scottish Planning Assessment

Chapter 3

Progress so far



3. Progress so far

- 3.1 The Scottish Executive set out its transport objectives in the 2004 Transport White Paper. These objectives are to promote economic growth, social inclusion, health and protection of the environment through a safe, integrated, effective and efficient transport system.
- 3.2 By the end of 2006, Transport Scotland's expenditure on public transport is planned to reach £1 billion per year. Much of this funding has been allocated to the major rail projects that Ministers committed to deliver through the Partnership Agreement. These are:
- Larkhall to Milngavie (delivered December 2005).
 - Stirling - Alloa - Kincardine (to be completed during 2007).
 - Edinburgh Waverley re-modelling (to be completed by early 2008).
 - Scottish Borders Railway (Parliamentary power secured in 2006).
 - Glasgow Airport Rail Link (GARL).
 - Edinburgh Airport Rail Link (EARL) } Bills in Parliament for powers to construct.
 - Airdrie to Bathgate Rail Link.
- 3.3 These projects go a long way to supporting the vision set out above and to realising our broader transport objectives and provide a strong platform for taking forward future developments. As outlined in the design and development appraisals, EARL and GARL will provide airport users with direct connections to the rail network and will reduce congestion on motorways and surrounding major roads. EARL provides connections with Aberdeen, Inverness, Perth, Stirling, Dunfermline, Dunblane, Dundee, Glasgow and Edinburgh city centre. GARL will connect Glasgow Airport with Glasgow Central station providing connections to south Glasgow, West Lothian, Lanarkshire and Edinburgh.
- 3.4 We aspire to host the Commonwealth Games in Glasgow in 2014. As part of that bid, our aim is to have 100% of spectators travelling to the Games by public transport, cycling and walking. Glasgow already has an impressive and extensive transport network which provides excellent local, regional and international accessibility. By 2014, an additional £1 billion will have been spent on further enhancements to the transport infrastructure, including completion of the Glasgow Airport Rail Link.

- 3.5 The Airdrie to Bathgate line will provide a fast public transport alternative to many journeys made on the A8/M8. It will help reduce congestion and widen opportunities for residents of West Lothian. This new route will also provide new options for connections across Glasgow and beyond and these possibilities will be explored as part of *Scotland's Railways*.
- 3.6 We are also committed to investing in the Edinburgh Tram Network and are supporting feasibility and value analysis on the Glasgow and Aberdeen Crossrail projects. We are working with the rail industry to deliver small enhancement projects for both passenger and freight, including freight load gauge enhancement for Mossend - Elgin and improving passenger facilities at stations and car parks.
- 3.7 Through investment in the First ScotRail franchise, which began in October 2004, we are delivering significant improvements. In 2006/07, £292 million is allocated to providing rail services. Since October 2004, we have:
- Increased train capacity and comfort. 15 new high quality trains have been introduced increasing passenger seating capacity by nearly 30% on the Fife Circle.
 - Enhanced passenger comfort. First ScotRail have invested £1.5 million in improved air conditioning equipment, which was fitted to the Class 158 fleet in 2005.
 - Delivered greater integration and promotion of bicycle transportation. Secure cycle parking facilities have been fitted at 223 stations and will cover all stations on the Scottish network. The franchise also ensures that the provision for cyclists on board trains cannot be reduced from current levels.
 - Improved sleeper services. First ScotRail have increased sleeper capacity by 50% on the Fort William route at weekends during the summer by providing an extra carriage. Additionally, the franchise has allocated £1 million to invest in the upgrading of the sleeping car fleet. There has been a 19% reduction in delays on sleeper services since First ScotRail took over the franchise.
 - Invested in staff numbers and staff development. Approximately 400 additional staff have been employed since the start of the franchise, with more planned. First ScotRail are investing at least £1 million per annum in staff training, development and recruitment of extra drivers.
 - Improved service delivery. A new customer contact centre at Fort William was opened in October 2005. The centre operates from 07:00 to 22:00 every day and provides a cross-section of customer assistance including general travel enquires, ticket sales and reservations.
 - Introduced better measures to prevent ticketless travel and travel fraud. Ticket barriers have been installed at Waverley, Haymarket and Queen Street stations to reduce fare dodging and 28 self-service ticket machines have been installed at 22 stations to allow passengers to purchase tickets more easily.
 - Opened new stations at Gartcosh, Kelvindale, Larkhall, Chatelherault and Merryton.

3.8 Other improvements include:

- Higher standards for performance, including tougher penalties for poor performance, a new quality regime for stations and trains, a dedicated team to resolve any disruption to services and a requirement for immediate action plans if anything goes wrong.
- A programme of improvements for passengers at Stirling, Aberdeen, Haymarket and Glasgow Queen Street stations.
- Improved punctuality and reliability of services to be delivered through the operation of 29 more reliable and better quality trains.
- Increased capacity - the new trains will provide around 5,900 more seats throughout Scotland.
- Improved passenger safety and comfort, including higher standards of cleanliness, security and travel information on trains and at stations.
- 21 existing trains on the previous Strathclyde Passenger Transport network will have their interiors refurbished.
- Reduce overcrowding so that no-one should have to wait more than 10 minutes for a seat, compared to 20 minutes in the rest of the UK.

3.9 The results from these improvements already include:

- Passenger numbers have grown by around 10% since the start of the franchise.
- Rail punctuality (as calculated by the Public Performance Measure) has improved from 83.7% in October 2004 to 87.2% in August 2006. This means that the number of trains late has fallen by 22%.

3.10 It has to be recognised that there are both financial and physical constraints on the continued expansion of the rail network. We seek therefore to continue to deliver benefits that are affordable and sustainable. We want to encourage commuters and travellers, where appropriate, to choose rail over air and private vehicles and thereby reduce emissions. We want an increasing proportion of products to be delivered through rail freight. That means we must make our railways attractive, offering a high quality service, affordable, accessible, reliable and competitive with road and air journey times.



- 3.11 In considering any potential future rail developments, we must undertake a robust analysis of all the options before committing to solutions. We do this through the Scottish Transport Appraisal Guidance (STAG). STAG is an evidence based, objective led, multi-modal framework approach to identifying the most appropriate solution to a transport problem. The process requires consideration of a broad range of factors including impact on planning objectives, land use policies, feasibility, affordability and impact on the environment. It also includes an assessment of the economic impact of the proposal. In addition to this environmental noise aspects of rail will be looked at in detail from 2007 as the EU Environmental Noise Directive (END) is rolled out in Scotland. This will involve the noise mapping of all railways with over 60,000 movements per annum in 2007 and over 30,000 movements in 2012 as well as in 2007 the mapping of all railways in Glasgow and Edinburgh. Any new rail developments will also have to be mapped. Any noise hotspots identified from the mapping of such railways will be covered in subsequent action plans.
- 3.12 Transport Scotland will undertake a Strategic Transport Projects Review (STPR) for all transport modes, against clear criteria on safety, environmental impact and meeting the economic needs of Scotland. The Review will consider, then plan and prioritise transport infrastructure investment to 2020 and beyond across all modes, far beyond our currently committed projects. In doing so, the Review will develop the investment plan necessary to deliver the high level objectives arising from the National Transport Strategy. It will also identify how the future development of Scotland's transport infrastructure can most effectively support the Scottish Ministers' objectives for transport, the environment, the economy and the well-being of Scotland's people.
- 3.13 *Scotland's Railways* sets out our vision for the railway in Scotland and highlights some of the themes we will consider as future rail projects. Each of these projects will be fully appraised through the STAG process and any decision to implement schemes will be dependent on a positive case emerging. Our long term aspirations will also be considered through the STPR. Decisions about implementation of individual schemes beyond 2009 will be informed by both the STAG and STPR processes and their overall affordability.

- 3.14 We see the aspirations in this document as being funded through a whole range of sources, both in the public and the private sector. The most appropriate source will depend on the nature of the investment, and will often involve partnership funding.
- 3.15 Current funding mechanisms can be broadly categorised into three areas: funding via First ScotRail for the services and rolling stock agreed within the rail franchise, funding via Network Rail for the operation, maintenance and renewal of the rail infrastructure, and funding for enhancements to both the infrastructure and the services. Within Network Rail's existing funding there are budgets specifically for further improvements such as the Network Rail Discretionary Fund and the Network Rail 'Outperformance' Fund.
- 3.16 The rail industry in Scotland attracts a significant amount of public funding. Network Rail receives more than £300 million of direct grant every year to manage the rail network and to maximise its capacity. This funding relationship is governed by the Office of Rail Regulation (ORR). The funding allocated to Network Rail is for the operation, maintenance and renewal of the rail infrastructure network. It is strategically important that Network Rail should continue to improve its efficiency of delivery from the high cost base it inherited from Railtrack. Such efficiency gains release funding for further service enhancements. A significant part of Network Rail's funding is spent on major infrastructure renewal projects. Transport Scotland will work with Network Rail to ensure that the sequence and functionality of major asset renewals are optimised to meet our strategic priorities.
- 3.17 Regional Transport Partnerships and Local Authorities are also sources of potential investment, as are private developers and freight operating companies. Under the devolution settlement, Department for Transport (DfT) continue to have responsibility for the services currently provided by GNER and Virgin under the cross border franchises.



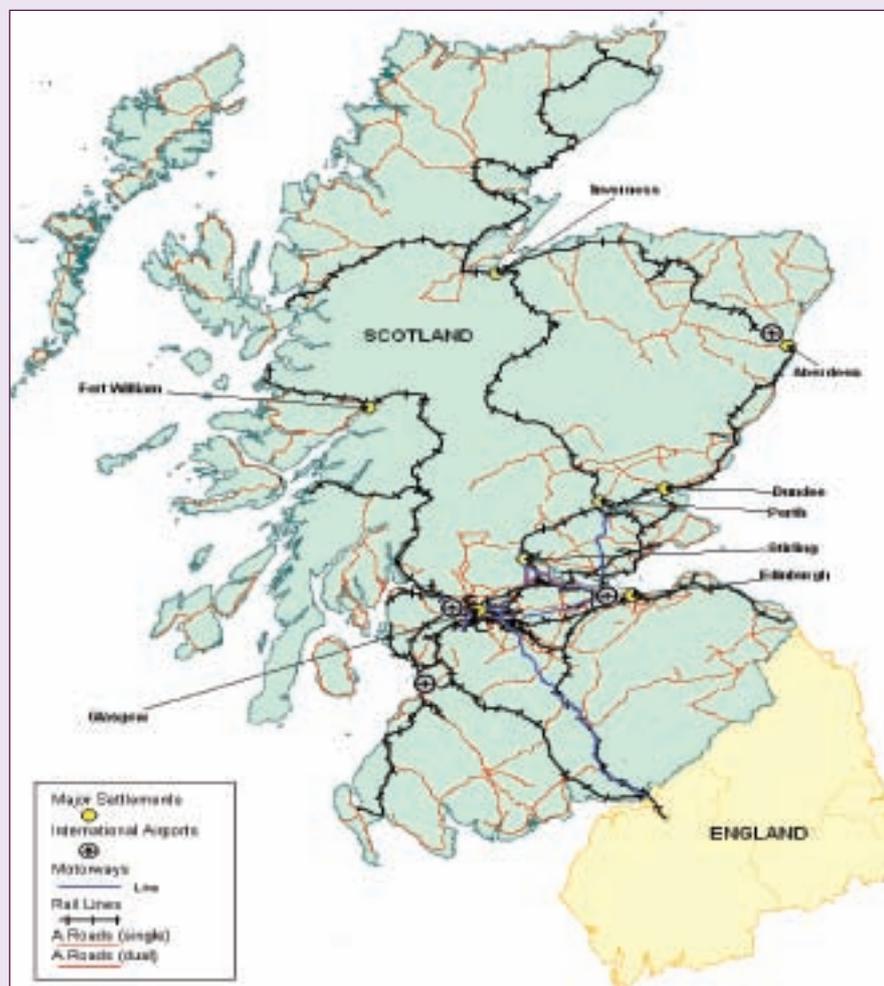
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Chapter 4

The rail network in Scotland - maps and key facts

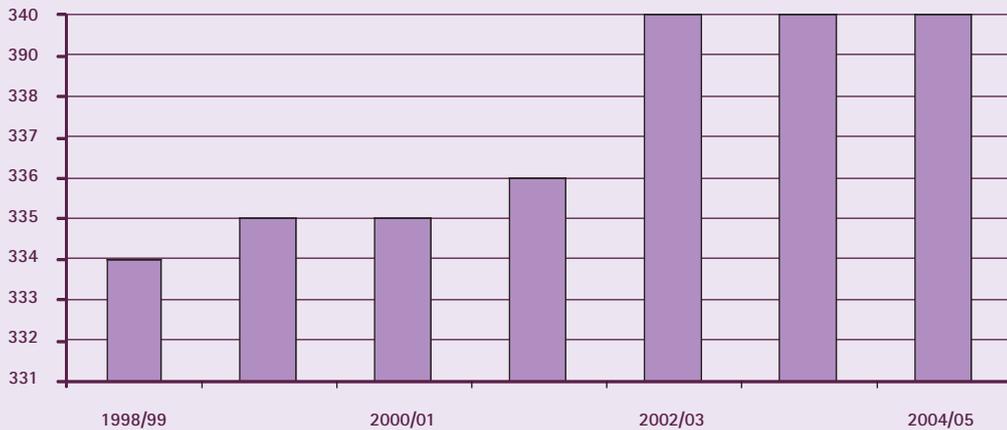


Source: Arup



4.1 In 2004/05, the rail network in Scotland comprised 2,729 kilometres of railway 23% of which is electrified. By the end of 2005 there were 341 stations¹ leased by First ScotRail, and 4 others operated by Network Rail (Glasgow Central and Edinburgh Waverley), GNER (Dunbar) or a private company (Prestwick International Airport), recording more than half a million passenger journeys. The average rail journey in Scotland in 2003/04 was around 28 miles. Two thirds of rail passenger journeys were on services supported by the west of Scotland commuter network, and one third were elsewhere in Scotland. The rail network in the west of Scotland is the most heavily used commuter network in the UK outside London.

Number of passenger and parcel stations

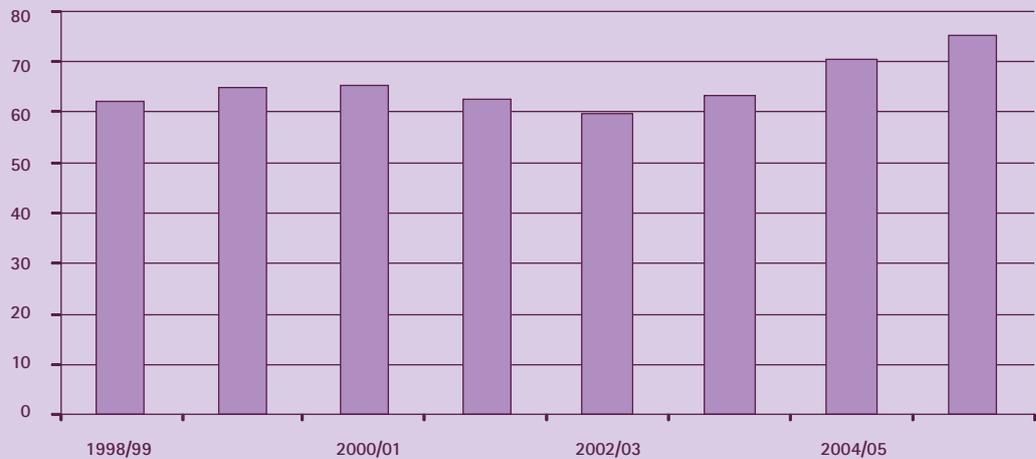


Scottish Executive *Scottish Transport Statistics No. 24 2005 Edition*

4.2 The total number of First ScotRail rail passenger journeys originating in Scotland was 75.1 million in 2005-06. This is 9% more than the previous year, and 48% more than 10 years earlier.

¹ Five new stations were opened in 2005.

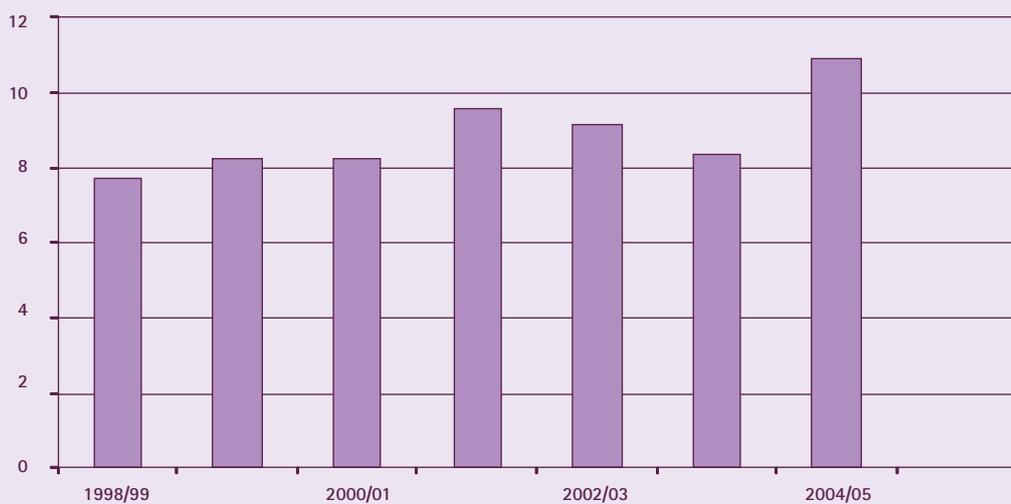
Passenger journeys wholly within Scotland (in million miles)



Scottish Executive *Scottish Transport Statistics No. 24 2005 Edition*

4.3 10.9 million tonnes of rail freight were lifted in Scotland in 2004/05. 6.9 million tonnes went to destinations outside Scotland while 1.5 million tonnes came into Scotland by rail. Coal and other minerals accounted for three-quarters of the freight lifted in 2004/05. Rail accounted for 5.1% of the total weight of freight lifted by all modes, but 11.3% of the tonne-kilometres, due to rail freight tending to travel longer distances. Of all freight lifted in Scotland, 59% was delivered elsewhere within the UK and about 5% was delivered outwith the UK (because of the way that the statistics are compiled, the 5% figure includes freight for export which was delivered to a port in Britain, as well as Channel Tunnel traffic). Since 1999, 30 awards of Freight Facilities Grant, totalling £73 million and removing 70 million lorry miles from our roads, have been awarded. Of these, 24 totalling £53 million have been awarded to rail freight projects.

Rail freight lifted in Scotland (in million tonnes)



Scottish Executive *Scottish Transport Statistics No. 24 2005 Edition*

Departures

Platform No.	Time	Platform No.	Time	Platform No.	Time
18	15:10	14	15:15	17	15:18
MARKINCH SCOTRAIL		GLASGOW QUEEN ST SCOTRAIL		BATHGATE SCOTRAIL	
Stopping at: HAYMARKET SOUTH GYLE DALMENY NTH QUEENSFERRY INVERKEITHING DALGETY BAY ABERDOUR BURNTISLAND KINGHORN KIRKCALDY		Stopping at: HAYMARKET LINLITHGOW POLMONT FALKIRK HIGH CROY		Stopping at: HAYMARKET UPHALL LIVINGSTON NORTH	
STD CLASS ONLY		TROLLEY SERVICE SHUTTLE 3		STD CLASS ONLY FRONT TRAIN	

↑ Platform 14



Chapter 5

Evidence base

5. Evidence base

5.1 In preparing *Scotland's Railways* we have taken account of a broad range of evidence, gathered from a number of sources. In particular, we have based our analysis on evidence from our public consultation 'Towards a Transport Strategy for Scotland: Rail Priorities', the Scottish Planning Assessment (SPA), Network Rail Route Utilisation Strategies and the Highland 'Room for Growth' study published by Highlands and Islands Enterprise. These reports are either already published or are being published alongside this document however a summary of each is given in paragraphs 5.4 to 5.7 below with some key messages presented throughout this document.

5.2 We have also taken account of a range of Scottish Executive strategies and policies including the Tourism Framework for Change and Scotland's Climate Change Programme *Changing Our Ways*.

5.3 We have carried out a voluntary Strategic Environmental Assessment which will be published for consultation. We will publish an environmental statement outlining how we will address any issues highlighted through that consultation.

Public Consultation

5.4 The consultation took place between October 2005 and January 2006. It sought to help Ministers set appropriate strategic priorities for rail that will be delivered through Network Rail, First ScotRail, freight operating companies and others that focus on the activities where rail can contribute most to the economy and society of Scotland. The consultation asked questions relating to future investment in the railways, priorities for customers, the use of the rail network and changes to it.

Existing and potential passengers want fast, reliable, comfortable travelling experiences to an expanded range of destinations, with straightforward fare options.

Review of Responses to Consultation on Rail Investment Priorities



Scottish Planning Assessment

- 5.5 Arup Consultancy was appointed by the then Strategic Rail Authority (SRA) in April 2005 to provide the SRA and Scottish Executive with a Scottish Planning Assessment (SPA). The SPA examines options for the long term development of the railway, through to 2026. It provides an overview of the key issues and the pressures expected to arise on the railway. It suggests schemes that should be investigated to resolve these issues. We set out later in this document which of these recommendations we will take on board.

Route Utilisation Strategies

- 5.6 Following the UK Government's Rail Review in 2004 and the Railways Act 2005, the Office of Rail Regulation modified Network Rail's Network Licence to require the establishment of Route Utilisation Strategies (RUS) across the rail network. Network Rail has recently published its consultation RUS for the network in Scotland. The RUS considers the impact of continued passenger growth on the network and identifies gaps between the demand and capacity which will arise if no action is taken. It proposes a number of solutions for closing these gaps, which will need to be appraised. We take account of the interventions recommended in the consultation in this document.

Highland "Room for Growth" Study

- 5.7 Highlands and Islands Enterprise conducted the Room for Growth study, which followed a similar process to the RUS. It addressed key rail development issues for all of the rail routes in the Highlands. The study examined both operating and engineering issues and aimed to maximise the use of existing resources through effective use of timetables, to consider possible enhancements to train services and any associated engineering works needed to support this. A number of recommendations for improvements have been made. We set out later in this document which of these options we will consider further.

Conflicting priorities

- 5.8 In taking account of all of the evidence presented from these sources, conflicting priorities emerge. *Scotland's Railways* seeks to take forward the issues which we believe to be most significant and those which rail is best placed to deliver in an efficient, effective and sustainable way.

Chapter 6

Challenges ahead



6. Challenges ahead

- 6.1 Rail supports a broad range of government objectives as well as the requirements of both passenger and freight customers. A future National Planning Framework will have regard to the rail requirements established by this report. This will ensure that the strategic infrastructure requirements to achieve government objectives for rail are recognised within a reformed planning system. Demand for rail has been growing in recent years and demand for both passenger and rail freight services is forecast to increase by at least a third over the next 20 years. Along with increased demand, we can anticipate increased expectations from passengers about the quality and reliability of the service offered.
- 6.2 A modern, efficient rail network is essential in meeting these growing demands. There is a need to move forward, addressing currently known problems whilst recognising the need to plan and invest for the future in a cost effective, sustainable way. We expect the industry to:
- Develop and deliver innovative rail solutions for the 21st century.
 - Deliver service that minimises the impact on the environment and ensures that rail is the environmentally preferred mode of travel and a real alternative to the car and air travel both within Scotland and cross border.
 - Reduce the time it takes to progress projects from feasibility to delivery.
 - Deliver on time, on budget with a world class product.
 - Continue to improve the performance of the network.
 - Work in partnership with government, RTPs, local authorities and private companies to achieve the above.
- 6.3 Train operators are in a unique position to maximise passenger numbers. To achieve our aim of modal shift, freight operators and business customers must seek opportunities to make more and better use of rail. RTPs and local authorities are in an ideal position to focus on how rail integrates effectively with other modes of transport at local level and to support enhancements. Business and local authorities have a role in regeneration of stations and surrounding areas.



- 6.4 Transport Scotland's task is to facilitate the overall implementation of this document. The Office of Rail Regulation (ORR) is an independent regulator dealing with economic and safety issues. ORR will set the charges for use of the network by train operators according to the High Level Output Specification and Statement of Funds Available set by Transport Scotland and will ensure that Network Rail is delivering efficiently. The Department for Transport (DfT) manages and largely funds the cross border franchises and we must work with them to ensure the interests of customers from Scotland are fully reflected.
- 6.5 We must recognise that we cannot deliver all of our aspirations from government funding alone. The current substantial capital investment being made in expanding our rail network will bring additional resource requirements in future years for running additional trains and services. We anticipate that continuing efficiencies in Network Rail's operations, and continuing growth in the passenger numbers using services will both provide significant contributions to enabling the funding of this expansion in the coming years. We also consider a partnership funding of the railway between customers and taxpayers is appropriate. To achieve all the aspirations above will need considerable investment, and we will look to all partners to contribute as appropriate to the benefit they receive. This means that fare paying customers are a key part of the funding chain. We will also look to private developers to contribute to the costs of improving our railways where they relate to their development aspirations.

Chapter 7

Strategic outcomes



7. Strategic outcomes

- 7.1 The potential developments or enhancements to the rail network will contribute to the delivery of the strategic outcomes identified in the National Transport Strategy. These are:
- Improving journey times and connections.
 - Improving quality, accessibility and affordability.
 - Reducing emissions.

- 7.2 When contributing to these, we will place customers at the centre and recognise the importance of their needs.

Improving journey times and connections

- 7.3 To attract more passengers and freight on to rail, the service on offer has to meet their needs and be attractive. In particular, passengers generally want a fast, regular, reliable service, with a pleasant customer experience. While we recognise that the key strength of rail is its ability to move high volumes of people, we must not lose sight of the needs of the individual when making train journeys.
- 7.4 We recognise that freight customers have differing needs. They want access to flexible and reliable services. The movement of freight also relies on the availability of flexible freight paths.
- 7.5 Both passengers and freight customers are concerned with the journey as a whole and not simply the rail part, so effective integration with other modes is essential. From this flows the following:

Timetables to suit customers and improved connections

- 7.6 Regular, frequent passenger services between each of our city regions that reflect travellers' needs. Inter-urban journey times that can compete with the car. Quality interchange stations where passengers from intermediate stations can connect with fast, inter-urban services. Flexibility must be maintained for freight customers, with the ability to create and relinquish paths in response to customer needs.



Improving quality, accessibility and affordability

- 7.7 Recognising the expected increased demand for both passenger and freight rail services, we should plan for growth, focusing particularly on where this will generate a significant impact on modal shift to rail. This will require not only developments to rail infrastructure but will depend on the availability of appropriate rolling stock and other equipment.
- 7.8 The current major projects are expanding the network considerably. Beyond these projects there are few obvious opportunities to add major new segments to the network. In the medium term we are therefore moving into an era where better utilisation of the existing network is likely to be the first choice in adding to rail infrastructure capacity. We will monitor and review service usage and consider redirecting resources where they will provide maximum benefit to communities and industry.
- 7.9 Planning policies should aim to maximise use of existing services and stations/terminals before considering any possible need for new ones. New stations will be considered where the surrounding population, workplace or visitor need is sufficient to generate a high level of demand, and would be expected to be serviced by feeder rather than inter-urban services.
- 7.10 We will encourage local partners to establish where station shops are required and sufficiently viable to encourage investment by retailers and local authorities in stations thereby improving station facilities for passengers. This will also potentially decrease the number of car trips following the journey by train and therefore help reduce emissions.

Sustained good performance

- 7.11 Reliable services that arrive on time, with accurate information provided at all times. Improvements have been made recently to the performance of the network in Scotland. We would expect a Public Performance Measure (PPM) of over 90% to be maintained in the long term, with targeted action from Network Rail and the train operators where it falls below this level. A reliable and resilient infrastructure and reliable trains are critical for achieving this objective.

The rail industry in Scotland has made significant progress in driving down the root causes of train delay in recent years. This is reflected in the steady improvement in the Moving Annual Average Public Performance Measure figure for First ScotRail which stood at 84.5% of services less than 5 minutes late at period 10 in 2005/2006 compared to 82.6% at period 10 in 2004/2005.

Scotland Route Utilisation Strategy: Consultation Document

Evidence shows further improvement in performance. In the year ended August 2006, 87.2% of trains were on time.

Fares regulation

- 7.12 Current fares policy is set out in the First ScotRail Franchise Agreement, which was let by the Strategic Rail Authority and agreed with Scottish Ministers. As a consequence of the Railways Act 2005, Scottish Ministers now hold direct responsibility for future fares policy.
- 7.13 The current fares structure is a mixture of regulated and unregulated fares. Scottish Ministers can restrict the permitted increase on regulated fares while unregulated fares are set by the operator. Scottish Ministers have no control over the levels of unregulated fares.
- 7.14 We wish the fares structure to be easily understood by passengers, to encourage people to travel by rail and to be competitive, where possible, with other modes. We are currently reviewing fares policy and will seek to develop a new policy which encourages modal shift to rail.

More than a third of those responding to the consultation considered that the existing fares structure is too complicated. Three respondents considered the present fares structure is fine.

Review of Responses to Consultation on Rail Investment Priorities

Consistent good customer experience

- 7.15 The Service Quality Incentive Regime (SQUIRE), which is designed to maintain consistently high standards has been progressively extended across the whole of Scotland. Consideration will be given to whether even higher quality standards should be applied to key stations. The standards should be regularly reviewed to ensure they meet changing customers' expectations. Choices on rolling stock replacement will be guided by customer needs and route requirements. As part of the *Bus Action Plan* performance related funding is being examined which will draw lessons from SQUIRE regime.

Reducing emissions

- 7.16 Scotland's Climate Change Programme *Changing Our Ways* quantifies for the first time Scotland's equitable contribution to UK commitments in devolved areas in carbon terms - the Scottish Share. It sets an ambitious Scottish target to exceed the Share by delivering an additional 1 million tonnes of carbon savings by 2010. Our National Transport Strategy aims to make a contribution to these savings.
- 7.17 Road transport accounts for the majority of emissions, around 2993 Kt carbon in 2003. Emissions from our railways are significantly lower at 30 Kt Carbon in 2003. Given the lower emissions from railways, we therefore seek to maximise the opportunities that rail provides to reduce emissions by encouraging modal shift away from the private car and air travel where possible.



7.18 Measures to encourage passengers or freight to shift from road and air to rail can be generally seen overall as positive for the environment, in particular as a result of the reduction in air pollutant and climate change emissions in these other sectors. However, we can do more through our technology choices when rolling stock replacements are being considered to reduce the life cycle maintenance costs of the network, and through improving load factors on both passenger and freight trains. We will encourage increasing use of electric passenger rolling stock and haulage of freight by electric locomotives where this is both cost effective and feasible, which will also deliver lower noise emissions as well as better air quality.

7.19 Effective integration with other transport modes will play a part in reducing total transport emissions. We will consider the expansion of parking facilities and the most appropriate means for making additional capacity available. Where there is the necessary capacity on rail services and local roads, we will expand park and ride facilities and, where appropriate, consider discounted fees for rail passengers. It is critical that station and service design makes interchange with other forms of public transport easier. We seek to encourage the use of feeder bus services to and from rail stations and more opportunities for passengers to walk or cycle to stations. These measures and integration of cleaner buses and trains will improve air quality.

7.20 In relation to freight, we wish to encourage modal shift from road to rail. The Executive's Freight Action Plan seeks to encourage the development of strategically located multi-modal freight terminals. We would encourage the appropriate development of sites with rail access to make best use of this limited number of sites and recognise the contribution such developments would make to reducing emissions, encouraging not just strategic improvements but a systematic approach to thinking of rail as a way of finding transport solutions for example through exploring the use of non-intrusive rail crossover systems.

Rail's share of the timber transport market is currently very low... There is, however, an increasing willingness among stakeholders to encourage rail use on environmental grounds...

Scotland Route Utilisation Strategy: Consultation Document

Where long distance passenger services have a limited number of intermediate stops, customers want easy connections to 'feeder' services.

Review of Responses to Consultation on Rail Investment Priorities

Improving access to stations by increasing car parking capacity and improving interchange to other modes. At certain key stations, facilities should be improved to encourage travellers to interchange between services.

Scottish Planning Assessment

STRATEGIC OUTCOMES	PROGRAMMES OF WORK	THIS MIGHT MEAN
		Short term 2006-2009
		Medium term 2009-2014
		Long term 2014-2020
Improving journey times and connections	Timetabling and frequency enhancements to reduce inter-urban journey times	<p>Revise stopping patterns from Inverness, Aberdeen, Dundee and Perth to Glasgow and Edinburgh</p> <p>More frequent, faster services Edinburgh - Glasgow via Shotts and Carstairs</p> <p>Explore stopping patterns on Edinburgh - Glasgow via Falkirk</p> <p>Faster connections to Manchester through revised cross border franchise arrangements</p>
	Infrastructure enhancements to reduce inter-urban journey times	<p>Faster and more frequent services from Glasgow to London with West Coast upgrade</p> <p>Improved signalling on Forth Bridge and between Stirling and Larbert</p> <p>Introduce hourly services between Aberdeen and Inverness</p> <p>Introduce hourly skip stop service between Perth and Inverness</p> <p>Further incremental reductions in journey times to London and key destinations in north of England</p> <p><i>High speed link between Edinburgh and Glasgow and Scotland and London if feasibility work shows a strong case</i></p>
	Maintain current improvements to reliability of services	<p>At least 9 out of 10 trains arrive on time (as measured by the Public Performance Measure)</p> <p><i>More than 9 out of 10 trains arrive on time (as measured by the Public Performance Measure)</i></p>
Reducing emissions ⁵	Electrification to minimise emissions and reduce fossil fuel reliance (in some cases may also reduce journey times)	<p>A programme of electrification including Edinburgh-Glasgow via Falkirk, Whifflet, Paisley Canal, East Kilbride and Barrhead/Kilmarnock Stirling/Dunblane/Alloa, and Cumbernauld</p> <p><i>Conversion of some Glasgow suburban lines to light rail if feasibility shows a strong case</i></p>

⁵ Many of the potential interventions outlined will encourage modal shift to rail and will therefore contribute to reducing emissions.

STRATEGIC OUTCOMES	PROGRAMMES OF WORK	THIS MIGHT MEAN
		Short term 2006-2009
		Medium term 2009-2014
		Long term 2014-2020
	Capacity improvements to enable increased passenger numbers and freight volumes	<p>New Stirling - Alloa - Kincardine link</p> <p>Platform and train lengthening on Stirling-Glasgow, Kilmarnock-Glasgow and Inverness-Aberdeen routes</p> <p>More frequent services on Kilmarnock-Glasgow</p> <p>Additional capacity on the Glasgow and South Western route</p>
Improving quality, accessibility and affordability	Enhancing integration with other modes	<p>Rolling programme of car parking expansion and encourage station design to include feeder bus services and opportunities to walk/cycle to station</p> <p>Development of multi-modal ticketing</p> <p>Improved interchanges at Haymarket, and Gourock</p> <p>Work with freight industry to explore locations for strategic intermodal freight hubs</p> <p>Station at Laurencekirk</p> <p>Maintain all current rural routes and integrate timetables with inter-urban services</p> <p>Deliver Glasgow Airport Rail Link and Edinburgh Airport Rail Link</p> <p>New interchange at Bannockburn</p>
	Enhancements to stations, to improve capacity, passenger experience and to encourage modal shift	<p>Use SQUIRE to drive service quality enhancements</p> <p>Investigate options for building on Waverley works to enhance passenger access and circulation space</p>
	Timetable and service enhancements	<p>Revise stopping patterns to ensure services from intermediate stations link at key interchanges with fast inter-urban services</p> <p>Enhance services to North Berwick</p> <p>Enhance services to Dunbar through revised stopping of GNER and Virgin trains</p>

Chapter 8

Implementation plan



8. Implementation plan

- 8.1 Resources will dictate whether any project not currently in the transport spending programme is constructed. Inclusion of projects within the National Planning Framework and Development Plans will assist delivery of these projects.
- 8.2 Our programme of planned interventions will offer incremental improvements from now until 2025. These set out the measures that might be taken across Scotland in the short, medium and long term. Short term is defined as 2006/2009, medium term 2009/2014, and long term 2014 and beyond. The short term aspirations will be reviewed in more detail and providing they offer value for money it is anticipated they can be delivered in the timescale. The medium term outputs will be firmed up over the next 18 months through the Strategic Transport Projects Review (STPR) and the High Level Output Specification (HLOS) processes. Their implementation will depend therefore on availability of resources and value for money. Availability of resources will be determined through our Spending Review process in 2007 and beyond. It is unlikely that all projects started in the medium term can be delivered within that time frame. Delivery may extend to the longer term. Our longer term aspirations will require further feasibility work to ensure they are the best options to deliver the vision set out in this document.
- 8.3 We want to meet an increasing demand for rail services and provide sufficient capacity and customer service improvements by:
- Optimising the use of the network through effective timetabling of passenger and freight services.
 - Improving the existing rail infrastructure.
 - Delivering the programme of major projects.
 - Ensuring that our ongoing replacement of rolling stock reflects customer, environmental and network needs.
 - Adding new stations and freight terminals to the network.
 - Ensuring that services are accessible to everyone.
 - Development of multi-modal ticketing.



- Improving access to stations for all modes and expanded car parking at stations where appropriate.
- Implementing the new quality system SQUIRE.
- Installation of Customer Information Systems.
- Ensuring safety and security measures are included when planning and developing improvements.

8.4 These improvements will provide rail users with a better experience when using train services. We want to increase the scope and number of the journeys that can be made, helping to grow our economy by opening up opportunities for people and enabling goods to get to market as quickly and efficiently as possible. By investing in our rail network, we can also contribute to reducing road congestion and harmful emissions and also reducing the impact of transport on our environment.

The strongest consultation response was that network capacity should be enhanced, in order to make provision for all three types of rail transport: commuters, long distance passengers and freight. Some respondents considered that rail investment is lagging behind investment in other modes of transport, especially roads and domestic air.

Review of Responses to Consultation on Rail Investment Priorities

8.5 Our long term aspiration is to continue to enhance capacity and reliability, reduce journey times and contribute to environmental and energy objectives including through electrification of key Scottish railway routes. We will also consider options for modifying parts of our suburban network to light rail operation to provide more flexible local services and to allow network capacity to be used more effectively.

Station quality is also important and could be guaranteed by defining a minimum set of standards for different categories of stations in Scotland. This could cover passenger information, waiting facilities, ticket retailing, security and information on connecting bus routes.

Scottish Planning Assessment



Edinburgh – Glasgow routes

8.6 There will be four routes between Edinburgh and Glasgow. One via Falkirk High, one via Shotts, one via Carstairs and one via Airdrie-Bathgate (to be completed 2010). These routes play a key role in supporting the Scottish economy by underpinning the interaction between Scotland's two largest cities, providing for essential commuting flows and facilitating access to cross border rail and air services as well as to other connecting routes within Scotland. Expected growth on the main express route via Falkirk is already leading to some overcrowding on these services, which will only get worse if action is not taken. Growth on these and other routes will mean that capacity at Glasgow Queen Street station is likely to be a constraint beyond 2011. Population growth in other areas, such as West Lothian, will also drive up demand for better services on the other routes. There is a growing need for improvements in connections from the areas to the west of Glasgow. To address these issues, we expect to make the following interventions:

Short term

- Examine how best to reduce journey times between Edinburgh and Glasgow via Falkirk.
- Deliver the Stirling-Alloa-Kincardine project to reduce freight traffic on the eastern end of the Edinburgh-Glasgow route.
- Provide more frequent, faster journeys between Edinburgh and Glasgow via Shotts and Carstairs to improve links from Edinburgh to the south west of Glasgow and subsequently to Glasgow airport.
- Ensure better marketing of route options between Edinburgh and Glasgow to encourage passengers to use the service closest to their home instead of driving to stations on the Falkirk route to park and ride.
- Investigate options for developing capacity at Glasgow Central and Queen Street stations including opportunities to enhance cross Glasgow connections and possibility of converting some routes to light rail operation through the STPR.
- Support measures to encourage passengers to travel outside the morning peak where possible.
- Investigate options for building on Waverley works to enhance passenger access and circulation space.
- Redevelop Haymarket station by building an additional platform (0), increasing passenger circulating space and improving accessibility.

Medium term

- Increase capacity and reduce journey times by electrifying Edinburgh to Glasgow via Falkirk.
- Maximise Haymarket station's role as a key interchange station including through integration with trams.
- Deliver chosen enhancements to improve capacity and connections across Glasgow.
- Deliver the Airdrie to Bathgate project creating a fourth route between Edinburgh and Glasgow.
- Deliver the Edinburgh Airport Rail Link.



Long term

- Consider options for further reducing journey times between Edinburgh and Glasgow including re-signalling, realignment, new infrastructure and high speed railway.

Other inter-urban routes

- 8.7 These routes are defined as Edinburgh and Glasgow to Aberdeen via Stirling and Dundee and to Inverness via Perth together with services between Aberdeen and Inverness. These routes support the economies of Scotland's City Regions. Their development is therefore essential. We will take the following actions:

Short term

- Reduce journey times from Inverness, Aberdeen, Dundee and Perth to Glasgow and Edinburgh through revised stopping patterns.
- Timetable alteration to maximise the role of Dundee, Perth, Aberdeen and Inverness as key interchange stations.
- Introduce higher standards for these key interchange stations with defined interchange times, better facilities and information.
- Platform extensions at Elgin and Inch to permit 6 car trains to operate.
- Lengthen platform at Bishopbriggs to accommodate 6 car trains.
- Lengthen trains to Stirling (as a result of the longer platform at Bishopbriggs).
- Deliver the Stirling-Alloa-Kincardine route for passengers between Stirling and Alloa and freight throughout.
- Examine how best to improve services on Aberdeen-Inverurie corridor to improve cross Aberdeen connections.

Medium term

- Improve service frequencies between Aberdeen and Inverness to hourly.
- Introduce additional hourly commuter service from Perth to Edinburgh.
- Introduce a faster hourly service between Glasgow/Edinburgh and Inverness.
- Introduce further cross Aberdeen commuter services and supporting infrastructure if feasibility shows a strong case.

Long term

- Examine how best to improve capacity, reliability and journey times including exploring the value of electrification of the routes southwards from Aberdeen and Inverness.

Anglo-Scottish Routes

- 8.8 These are the routes from Edinburgh and Glasgow to London and elsewhere in England over the East Coast and West Coast Main Lines and currently operated through the GNER and Virgin franchises. These routes, as well as the Glasgow and South Western route, are strategically vital for the movement of freight between Scotland and England. Developments on these routes are critical in providing an alternative to domestic air travel, achieving modal shift on the cross border trunk roads and in improving Scotland's connection with English City Regions, so are vital to tourism. Responsibility for cross border trains rests with the Department for Transport (DfT) with the exception of sleeper services which form part of the First ScotRail Franchise. We will work with DfT to achieve the following:

Short term

- Reduce fastest journey time from Glasgow to London to 4 hours 15 minutes through implementation of the West Coast upgrade.
- Capacity enhancements on the Glasgow and South Western route to assist freight movements.

Medium term

- 4 hour fastest journey times from Edinburgh and Glasgow to London.
- 3 hour fast through services to Manchester and the North West.

Long term

- High speed rail link between Scotland and London.



Edinburgh suburban network

8.9 This network of local services includes routes to North Berwick, Fife, Stirling, Dunblane, Bathgate and Newcraighall. Plan led housing growth may lead to overcrowding in future, especially on the Fife and Bathgate routes. To address emerging issues, we will take the following actions:

Short term

- Restructure the timetable through Fife resulting from the Edinburgh Waverley remodelling, and take advantage of the additional paths across the Forth Bridge freed up by the completion of the Stirling-Alloa-Kincardine project, creating more capacity.
- Improve signalling between Larbert and Stirling and on the Forth Bridge.
- Enhance services to North Berwick.
- Work with DfT to enhance services to Dunbar through revising stopping pattern of GNER and Virgin Trains.

Medium term

- Deliver Edinburgh Airport Rail Link.
- Deliver new Airdrie to Bathgate line.
- Deliver Borders Railway to Tweedbank.
- Ensure infrastructure is suitable for future freight traffic, compatible with freight growth.
- Build on electrification of the Edinburgh - Glasgow route to provide electric services between Edinburgh and Stirling/Dunblane.

Long term

- Continue to target capacity issues.

Glasgow suburban network

8.10 Two thirds of rail journeys in Scotland are made on this part of the network. There are three separate areas, South East, South West and North. The South West routes serve Ayrshire (including Prestwick Airport) and Inverclyde. The North routes serve Airdrie, Milngavie, Dalmuir, Helensburgh and Balloch as well as diesel services to Maryhill, Cumbernauld and Stirling and Dunblane. The South East routes serve South Glasgow including the Cathcart Circle, Whifflet, Motherwell, Lanark, Hamilton and Larkhall. A number of pressures will arise on these lines and we will take the following actions to address these.



Short term

- Investigate options for developing capacity at Glasgow Central and Queen Street stations including opportunities to enhance cross Glasgow connections and possibility of converting some routes to light rail operation.
- Deliver Gourock Transport Interchange.
- Build additional loop to increase services to Kilmarnock to half hourly.
- Lengthen platforms at Kilmaurs and Dunlop to allow 6 car trains to operate between Kilmarnock and Glasgow.
- Develop park and ride options around M80 corridor.

Medium term

- Deliver Glasgow Airport Rail Link, including enhanced Glasgow-Paisley service.
- Deliver enhanced capacity and connections across Glasgow in light of conclusion of Strategic Transport Projects Review.
- Lengthen trains to Ayrshire, including to Prestwick Airport.
- Operate an additional hourly service on the Ayr route.
- Ravenscraig new station and service.
- Electrify services to Cumbernauld, Maryhill, Whifflet, Paisley Canal, East Kilbride, Barrhead/Kilmarnock, Stirling/Dunblane and Alloa diverting to Glasgow Queen Street Station low level and Glasgow Central Station low level where appropriate.

Long term

- Continue to target capacity issues.



Rural routes

8.11 These routes are the West Highland line to Oban, Fort William and Mallaig, the routes north of Inverness to Wick, Thurso and the Kyle of Lochalsh and the route south of Ayr to Stranraer via Girvan and south of Kilmarnock to Dumfries and Carlisle. Train frequencies on these routes are low and journey times are generally slow compared to the car. Promoting social inclusion is a driver in these areas as is economic growth through tourism. Without development, these routes will fail to attract new customers and costs will remain high. We will take the following actions to address these issues:

Two clear inter-related themes emerged from the aspirations and the analysis that was undertaken on this [Highland Main] line. The first was the need to reduce journey times to the Central Belt of Scotland and the second to improve the frequency of passenger services. Both of these are squarely aimed at improving the connectivity of the region and of Inverness in particular.

Highland Rail – Growth Study

Short term

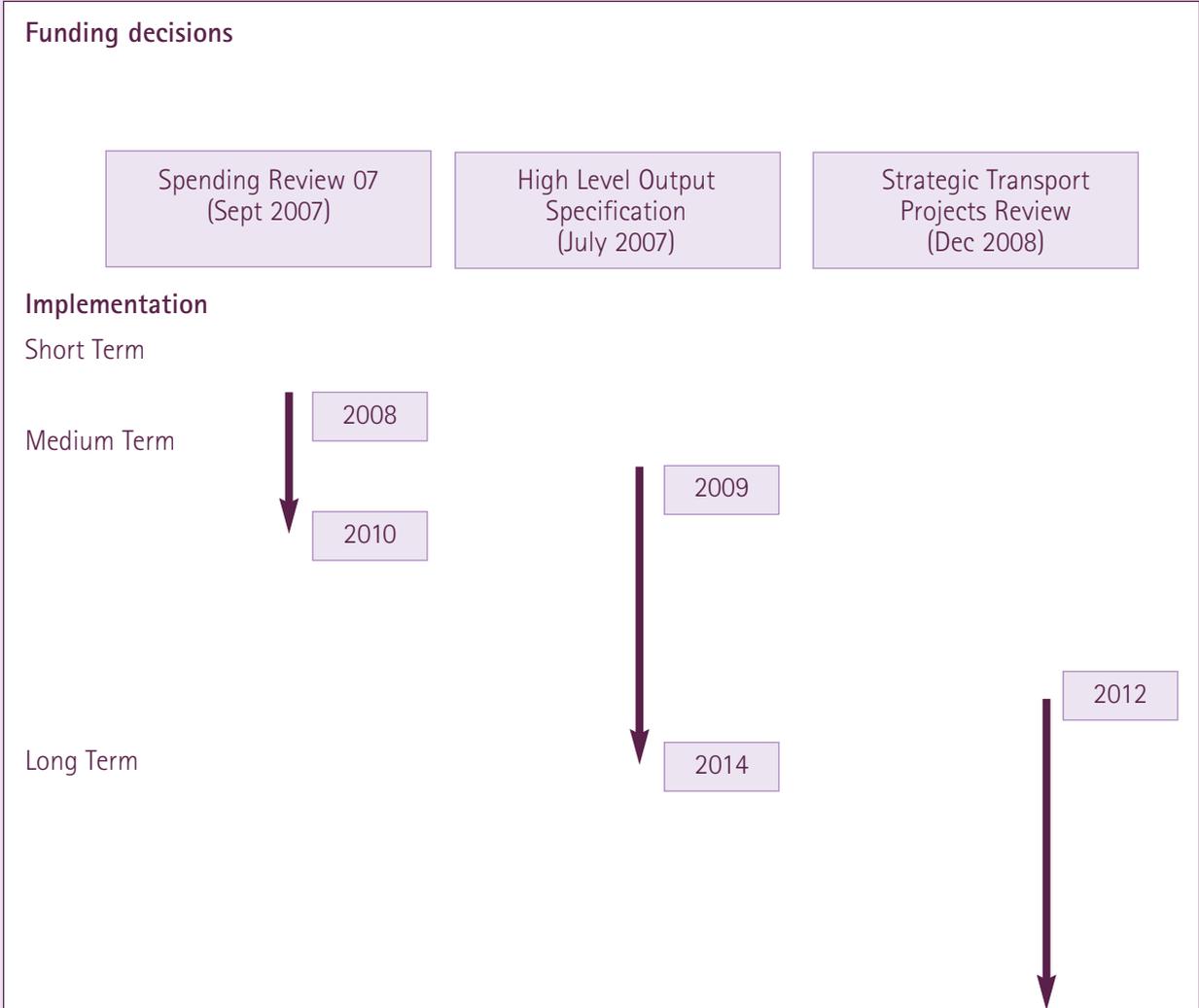
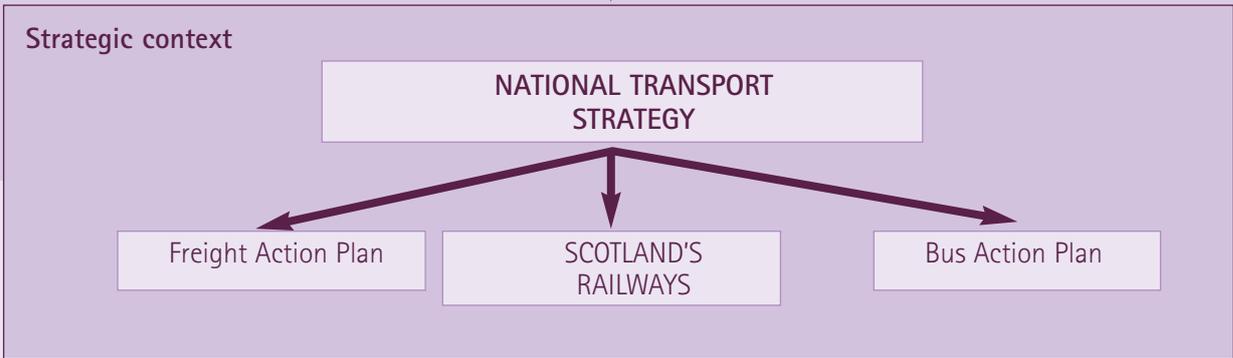
- Make services more attractive to commuters and tourists by improving passenger comfort and facilities on class 158 trains used in Inverness area.
- Revise train services in the light of changing travel patterns and markets including tourism developments.
- Improvements to class 156 trains for passengers using Glasgow and South Western and West Highland services.

Medium term

- Renew signalling with cost effective rural signalling system.
- Take advantage of synergies with upgrade of Glasgow and South Western (GSW) route to improve passenger service journey times to Carlisle.

Long term

- Continue to refine journey times where opportunities arise, for example at times of asset renewal.





Annex – High Level Output Specification

The High Level Output Specification (HLOS) process

- A statement of the outputs Scottish Ministers wish to purchase from the rail industry during the next regulatory control period for track access charges.
- A responsibility created under the Railways Act 2005.
- Required to allow the Office of Rail Regulation to determine whether public sector funding is sufficient to allow Network Rail to deliver industry outputs.
- Ministers required to deliver Statement of Funds Available (SoFA) in parallel.

Responsibilities of Scottish Ministers

- Funding Network Rail through Network Grant.
- Franchising ScotRail.
- Funding major projects to enhance the railway.
- Determining available funds for rail industry.

Key timescales

- June 2006: Network Rail cost submission for Control Period 4.
- February 2007: ORR issues formal Access Charges Review notice to government funders.
- July 2007: Government submits HLOS and SOFA to ORR.
- October 2008: ORR issue Final Determination of Access Charges for CP4.

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