

Proposal Details			
Name and address of authority or organisation promoting the proposal: (Also provide name of any subsidiary organisations also involved in promoting the proposal)		TACTRAN, Bordeaux House, 31 Kinnoull Street, Perth, PH1 5EN	
Proposal Name:	Package 3	Name of Planner:	<i>Name of principle contact within the authority or organisation promoting the proposal.</i>
Proposal Description:	Derived from Options Pac A2 and Pac A9 and includes: hourly Glasgow-Perth; addition of an hourly Perth-Arbroath in 2011; and then hourly Perth-Aberdeen (with reduction in express paths). Aberdeen – Glasgow/ Edinburgh express would run as a combined unit, splitting at Perth. The path freed up would be used by a new stopping service.	Estimated Total Public Sector Funding Requirement:	<p><i>Capital costs/grant:</i> £1.2m</p> <p><i>Annual revenue support:</i> £3.3m</p> <p><i>Present Value of Cost to Govt:</i> £77m</p>
Funding Sought From: (if applicable)		Amount of Application:	<i>Sum:</i>
Background Information			
Geographic Context:	The TACTRAN region covers the Angus Council, Dundee City Council, Perth and Kinross and Stirling Council authority areas, located to the north, east and west of Scotland's Central Belt. It is a unique geographical region including the three cities of Stirling, Perth and Dundee and an extensive rural hinterland of inter-connected towns, villages and rural areas, many of which are located within the Loch Lomond and Trossachs National Park and Cairngorms National Park. In general moving from north west to south east in the TACTRAN area moves from rural to more urban areas and the population density increases. The scope and influence of this study extends to Aberdeen in the north and Glasgow to the south, embracing the outskirts of the Grampians and the Central Belt area. 10% of the population in the TACTRAN area live in small towns with populations between three and ten thousand with 25% of the population living in rural settlements where the population is less than three thousand people. The majority of the population reside in the main urban settlements of Dundee, Perth, Stirling and Arbroath which range in size from between 20,000 and approximately 145,000 inhabitants.		

Social Context:	<p>The demographic profile of the TACTRAN region is not dissimilar to Scotland as a whole, with around 19% of the population under the age of 16, 20% of the population over the pensionable age and the remainder of 61% between these two ranges. Angus, Dundee City and Perth & Kinross all have higher percentages of their population over the pensionable age than the Scottish average, but this is reduced across the region as a whole by the lower than average percentage observed in the Stirling Council area. The average number of persons per household is broadly consistent across the TACTRAN region and aligns with the Scottish average: the average number of people per household is highest in Stirling at 2.36 and lowest in Dundee City at 2.13. The percentage of residents in Dundee City who live in a household with no available car (46%) is much higher than the national average of 34% and compares to percentages of 24%, 24% and 25% in Stirling, Perth & Kinross and Angus respectively. Whilst the average across the region for people with no access to a car is 31%, car ownership in the TACTRAN area is higher than that observed in the rest of Scotland. The preferred mode for travel to work is dominated by the car, which is used for an average of 66% of journeys, above the Scottish average of 64%. The use of rail and bus is low within the Council areas of Angus, Perth and Kinross and Stirling ranging between 6% and 10% of journeys in those areas, corresponding to the availability and frequency of Public Transport. More than 17% of the population in Angus, Perth & Kinross and Stirling travel over 10 kilometres to work, compared to only 4% who travel this distance and reside in Dundee City. Work journeys account for 22% of all trips that are made. Whilst 78% of resident's travel to work trips are within local authority areas; Dundee City has the highest proportion of internal trips (88%) followed by Perth and Kinross (82%), Angus (69%) and Stirling (68%). Currently 69% of journeys to work in the region are made by car with a relatively high mode share of 10% bus trips. Walking accounts for a high proportion of trips (17%), with rail and cycling accounting for 2% of trips each. Within Dundee the public transport mode share is high (19%) but within Angus, Perth and Stirling the public transport mode share is much lower (9%). Public transport provision and related services within the urban and rural areas are regarded as good and poor respectively, albeit within the wider rural hinterland this is exacerbated by the dispersed nature of surrounding settlements. A greater percentage of residents than the Scottish average are considered to be in 'good' health across the TACTRAN area. This is true for the individual authorities apart from Dundee City which sees a lower than average percentage of 'good' health and a higher than average percentage with 'not good' health, rather than 'fairly good' health. It is also the case in Dundee City that there is a greater percentage occurrence of a limiting long term illness than the Scottish average.</p>
Economic Context:	<p>The distinct urban and rural areas across the TACTRAN region serve various functions. Dundee is a vibrant economic centre with a growing employment and residential market. As well as its function as a tourism destination, Stirling City also plays a key service role for the wider Stirlingshire area, providing a wide range of employment and other services for the surrounding communities as well as for visitors and passing trade. The wider Stirling authority area covers a deep rural hinterland, many areas of which are captured within the Loch Lomond and Trossachs National Park where tourism is a key industry. These patterns can be demonstrated by looking at industries which employ the greatest percentage of people in each of the Council areas compared to the Scottish average. In Angus it the extraction industries such as Agriculture, hunting and forestry, mining and quarrying and manufacturing employ a greater percentage than the Scottish average while Dundee City conforms much more to the Scottish average but is more heavily biased towards health, social work and manufacturing. Throughout the TACTRAN region, employment in the construction industry is higher than in other parts of the country, and the impact of the large Universities in Dundee and Stirling is reflected in the percentage of people who work in the education sector. The industries with the highest percentages in Perth & Kinross are agriculture, hunting and forestry and hotels and restaurants, reflecting a higher dependency on tourism. Retail employment in this area is also high. Stirling shows a high percentage of the population employed in the hotel and restaurant sector as well as a high financial and educational bias. The percentage of the population within the TACTRAN area who are unemployed varies considerably between the constituent Council areas and is potentially compounded by the urban and rural characteristics of these areas. The Perth & Kinross and Stirling Council areas both have fewer than 3% unemployment compared with the national average of 4%, while Dundee City had over 5% of its population unemployed at the time of the last Census. The percentage of the economically active population who are undertaking full time study in the TACTRAN area is higher than the Scottish average and this is due to the impact of the large universities at Stirling and Dundee. Unemployment figures show that there are significant areas of high unemployment in the east of the TACTRAN region, primarily in Angus but also in the rural areas north of Kirriemuir and Brechin and around Crianlarich and Killin.</p>

Planning Objectives	
Objective:	Performance against planning objective:
EC1. Ensure that rail provides and supports economic growth by connecting key business & employment sectors where possible	Moderate positive – provides hourly connection across the corridor Glasgow-Aberdeen connecting major centres with intermediate stations for employment/job markets.
EC2. Improve the efficiency, reliability and integration of rail services in the Tay Estuary study area specifically where this will benefit key business and employment sectors	Moderate negative – performance risk of joining Glasgow/Edinburgh-Aberdeen services at Perth if one portion is late into Perth.
ACC1. Increase accessibility to key service destinations in the TACTRAN area (e.g. employment, health and education sites) and to/from key external destinations by rail without compromising wider inter-regional rail connectivity	Major positive – increased accessibility to major centres from intermediate stations across the corridor for key services.
ENV1. Contribute to national greenhouse gas emission reductions through rail based interventions where possible	Minor positive – increased service to intermediate stations expected to cause some modal shift to major centres.
ENV2. Contribute to the management of air quality in the TACTRAN area, particularly the AQMA's across the Dundee City Council area and Perth	Minor positive - improved connectivity to Dundee and Perth will encourage PT travel from intermediate stations, contributing to reduced emissions across the AQMA's
SEC1. Maintain or improve real and perceived levels of safety and personal security on the rail network	Neutral – possible slightly improved perception of safety if intermediate stations are better served/more used but otherwise little change.
INT1. Ensure that rail is fully integrated with relevant land-use and planning projects	Moderate positive - Good connections to Stirling and Dundee growth areas by 2011 from intermediate stations for employment.
INT2. Ensure the rail network is integrated with the wider public transport network	Neutral – improved integration with wider rail services from intermediate stations from Glasgow-Perth by 2011, Perth-Aberdeen from Dec 2016. Possible negative effects on integration due to the performance risk of joining/splitting at Perth
Rationale for Selection or Rejection of Proposal:	This option can deliver the desired connectivity across the TACTRAN region for a low cost but at the risk of reduced performance for Glasgow/Edinburgh-Aberdeen express services. Performance analysis would be useful to assess if this option is viable.

Implementability Appraisal	
Technical:	<p>In the short term there are pathing conflicts with three freight services in the down direction and four in the up direction. These are felt to be resolvable. Running "shuttle" services on each side of Perth avoids pathing conflicts with proposed Highland Main Line services.</p> <p>In the medium term, this option provides a service between Perth and Aberdeen without the requirement for major infrastructure works at Usan. The new Perth – Aberdeen service would only be implemented when the required rolling stock became available.</p> <p>However, technically this is the most difficult of all the options to implement because of the difficulty in finding reliable paths which will allow separate services to run from Dundee to Glasgow and Edinburgh after splitting. Similarly there has been great difficulty in finding paths out of Edinburgh Waverley and Glasgow Queen Street which allow services to meet at Dundee and couple up within a few minutes. Accordingly this option results both in very poor performance for the express services and for other services in the central belt.</p>
Operational:	<p>Network Rail may be required to staff the Greenloaning signal box to accommodate the additional services on the Glasgow – Perth corridor.</p> <p>Units and crew: a peak hours service presently operates between Glasgow and Perth. An all day service can be provided from Dec 2010 with rolling stock and train crew resources currently available to the franchisee. To provide a shuttle service between Perth and Arbroath will require a further 2 units and associated train crew. The timing of this phase has been aligned to follow a planned redeployment of the existing First ScotRail rolling stock fleet scheduled for 2011. An hourly service from Perth to Aberdeen will require 5 additional units and associated train crew. These trains would not realistically be available until Dec 2016 and completion of the EGIP programme at the earliest.</p> <p>In Phase 2, the developed timetable for this option has managed to combine the separate Glasgow – Perth and Perth – Arbroath services on three occasions each day to provide a through service between Arbroath and Glasgow. This not only makes the most efficient use of resource but also provides greater connectivity, particularly as there is a through service in each direction in the evening peak. This additional connectivity is will not be available in Phase 3 because of the constraints imposed through pathing the express services between Aberdeen and Edinburgh and Glasgow.</p> <p>The performance impacts of running combined Edinburgh and Glasgow services between Dundee and Aberdeen are significant, both to this service and others in the central belt. The new stopping service between Perth and Aberdeen can operate reliably. This option is not workable because of this.</p>

Financial:	<p>Signalling works at Arbroath would require funding at £<0.2m – Possible TACTRAN but other funding sources may be available.</p> <p>The short and medium term options make use of recycling train and staff resources available within the ScotRail franchise and do not require major infrastructure investment. Combining of the Glasgow and Edinburgh express services between Aberdeen and Dundee has been shown to perform poorly (ie. the only option which is worst than present) in revenue terms. A significant operating subsidy would be required.</p>
Public:	<p>Proposal is not public but is likely to attract negative comment for the possible performance disbenefits of splitting/joining presently single trains, reduced connectivity for stations north of Arbroath and a perceived reduction in express services between Aberdeen and Dundee (presently two per hour provided by the separate Aberdeen – Edinburgh and Aberdeen – Glasgow services)</p>

Environment			
Mitigation Options Included: (Cost & Benefits)	Qualitative information	Quantitative information	Significance of Impact
Sub-objective	Qualitative information	Quantitative information	Significance of Impact
Noise and Vibration	<p>It could be expected that there will be very minor noise and vibration impacts to properties living adjacent to, or within the vicinity of, the railway line. As an established railway line however, the noise and vibration impacts arising from the additional service per hour are considered to be negligible. In addition, for most residential and other premises sensitive to noise and vibration, mitigative screening will already be in place.</p> <p>In contrast to this, a slight modal shift from car to rail will create a small benefit from reduced road noise.</p>	<p>The monetised net benefit for noise over the 60 year appraisal period is £113,000. This is negligible in terms of the overall present value of benefits (PVB) generated.</p>	Neutral
Air Quality – Overall	Air quality overall is expected to marginally	The monetised net benefit for local air quality over	Minor positive

	improve as a result of some modal shift to train from private car journeys.	the 60 year appraisal period is £156,000.	
CO ₂ – Global	Whilst global CO ₂ emissions could be expected to improve as a result of some modal shift to train from private car journeys, this is considered negligible at a global level given the type of proposal, scale (service frequency) and context, as well as the benefits being slightly negated by the proposed service's reliance on diesel fuel. It could be expected, in coming years, that the proportion of diesel generated by renewable sources increases, thereby contributing to a reduction in global CO ₂ emissions.	The monetised net benefit for greenhouse gases over the 60 year appraisal period is circa £199,000. This is negligible in terms of the overall present value of benefits (PVB) generated.	Minor positive
PM ₁₀ – Local	Local PM ₁₀ emissions are expected to improve as a result of some modal shift to train from private car journeys. Whilst this is expected to be relatively minimal, given the geographical scope of service and the population centres served by the line/ service, it is expected that collectively, there will be "worthwhile" local emission improvements.	The local PM ₁₀ impacts overall arising as a result of an additional service per hour will be negligible and therefore quantitative information has not been gathered.	Minor positive
NO ₂ – Local	Local NO ₂ emissions are expected to improve as a result of some modal shift to train from private car journeys. Whilst this is expected to be relatively minimal, given the geographical scope of service and the population centres served by the line/ service, it is expected that collectively, there will be "worthwhile" local emission improvements.	The local NO ₂ impacts overall arising as a result of an additional service per hour will be negligible and therefore quantitative information has not been gathered.	Minor positive
Water Quality, Drainage and Flood Defence	Water quality, drainage and flood defence impacts will not arise as a result of this proposal. The service will operate on an established railway line where water quality, drainage and flood defence issues will have been managed/ mitigated for existing operational services.	The additional water quality, drainage and flood defence impacts arising as the result of an additional service per hour, on an established railway line will be negligible and therefore quantitative information has not been gathered.	Neutral
Geology	Geology impacts will not arise as a result of this proposal. The service will operate on an established railway line where geological issues will have been managed/ mitigated for existing operational services.	The additional geology impacts arising as the result of an additional service per hour, on an established railway line will be negligible and therefore quantitative information has not been gathered.	Neutral
Biodiversity	It could be expected that, as a result of very minor additional noise and vibrational impacts arising	The additional biodiversity impacts arising as the result of an additional service per hour, on an	Minor negative

	<p>from the proposal, there will be some marginal impacts to fauna adjacent to, and within the vicinity of, the railway line. As an established railway line however, the impacts arising from the additional service per hour are considered negligible and severance for flora and fauna already exists as a result of existing operational services.</p>	<p>established railway line will be negligible and therefore quantitative information has not been gathered.</p>	
Visual Amenity	<p>Visual amenity impacts will not arise as a result of this proposal. The service will operate on an established railway line where any significant visual amenity issues will have been managed through mitigative (natural or other) screening.</p>	<p>The additional visual amenity impacts arising as the result of an additional service per hour, on an established railway line will be negligible and therefore quantitative information has not been gathered.</p>	Neutral
Agriculture and Soils	<p>Agriculture and soils impacts will not arise as a result of this proposal. The service will operate on an established railway line where agriculture and soils issues will have been managed/ mitigated for existing operational services.</p>	<p>The additional agriculture and soils impacts arising as the result of an additional service per hour, on an established railway line will be negligible and therefore quantitative information has not been gathered.</p>	Neutral
Cultural Heritage	<p>Cultural heritage impacts will not arise as a result of this proposal. The service will operate on an established railway line where cultural heritage issues will have been managed/ mitigated for existing operational services.</p>	<p>The additional cultural heritage impacts arising as the result of an additional service per hour, on an established railway line will be negligible and therefore quantitative information has not been gathered.</p>	Neutral
Landscape	<p>Landscape impacts will not arise as a result of this proposal. The service will operate on an established railway line where any significant landscape issues will have been managed through mitigative (natural or other) screening/ environmental enhancement.</p>	<p>The additional landscape impacts arising as the result of an additional service per hour, on an established railway line will be negligible and therefore quantitative information has not been gathered.</p>	Neutral

Safety			
Sub-objective	Item	Qualitative information	Quantitative information
Accidents	Change in Annual Personal Injury Accidents	<p>A change in Annual Personal Injury Accidents will not arise as a result of this proposal. The service will operate on an established railway line to a proven timetable which meets the relevant network rail operational and safety criteria. Whilst it could be</p>	<p>The proposal of an additional service per hour, on an established railway line will have a negligible effect on annual personal injury accidents on the rail network and therefore quantitative information has not been gathered.</p>

		considered that, as a result of some modal shift to train from private car journeys, there may be some road accident savings, these would be extremely marginal and, quantification of, outwith the scope of this study.	
	Change in Balance of Severity	A change in the balance of severity of accidents will not arise as a result of this proposal. The service will operate on an established railway line to a proven timetable which meets the relevant network rail operational and safety criteria.	The proposal of an additional service per hour, on an established railway line will have no effect on the balance of severity of accidents on the rail network and therefore quantitative information has not been gathered.
	Total Discounted Savings	Not applicable.	Package 3 will have a monetised net benefit of £1,388,000.
Security		<p>Personal security benefits are expected as a result of this proposal: increased frequency of service at railway stations on the line, and by implication increased patronage, will contribute to enhanced security for waiting passengers.</p> <p>Gleneagles has been specifically identified as having a perceived security issue due to its isolation from occupied settlements. The proposal contains provision to deliver improved facilities at Gleneagles if it is identified as a station which should receive an hourly service.</p>	The proposal of an additional service per hour, on an established railway line will have a negligible effect on security on the rail network and therefore quantitative information has not been gathered.

Economy (Transport Economic Efficiency)			
Sub-objective	Item	Qualitative information	Quantitative Information
User Benefits	Travel Time	Travel times across key routes/ areas within the region will be quicker by rail as a result of the enhanced service. (See below, right).	Travel time monetised costs and benefits for Package 3 is circa £49,263,000. This includes time benefits to both road and rail users.
	User Charges	Rail fares are set nationally and at peak times are at	Current peak single rail fares on sample sections of

	<p>a premium compared with bus services. The premium generally reflects the quicker journey time and reliability of rail services.</p> <p>Improving the frequency of service would make use of the poorly served stations more attractive and the current fare structure could be reviewed in future to reflect actual demand.</p>	<p>the study corridor are:</p> <p>Carnoustie to:</p> <ul style="list-style-type: none"> • Dundee – 15 min (£3.10) • Perth – 36 min (£10.50) • Glasgow – 1 hr 40 min (£30.60) <p>Broughty Ferry to:</p> <ul style="list-style-type: none"> • Dundee – 8 min (£1.00) • Perth – 31 min (£6.30) • Glasgow – 1 hr 32 min (£13.70) <p>Gleneagles to:</p> <ul style="list-style-type: none"> • Dundee – 40 min (£6.30) • Perth – 17 min (£5.40) • Glasgow – 50 min (£10.00)
Vehicle Operating Costs	<p>As the proposal will contribute to a modal shift to rail from private car journeys (in particular, at stations adjacent to the urban centres on the route), net user benefits could be expected from reduced fuel use and vehicle maintenance costs for car drivers (as well as parking cost savings), compared to the cost of rail travel.</p>	<p>The vehicle operating costs (savings) arising as a result of an additional service per hour will be negligible and therefore quantitative information has not been gathered.</p>
Quality / Reliability Benefits	<p>Quality benefits will principally be accrued through the additional travel choice (destinations and frequency) afforded through this proposal. Station facilities, particularly those affecting safety and security, will be improved where necessary to reflect the increased demand at those stations which currently do not receive good service levels and are therefore poorly used. At peak periods travel by rail is demonstrably more reliable than bus or private car when travelling to the major employment and education destinations in the study area, namely</p>	

		<p>Dundee, Perth, Stirling and Glasgow.</p> <p>Passengers wishing to travel to Glasgow can interchange at Dundee or Perth. However the developed timetable for Phase 2 contains three direct services per day between Arbroath and Glasgow which will further contribute to journey quality and reliability.</p> <p>This direct connectivity with Glasgow will be lost once Phase 3 is implemented. Performance modelling shows the express services will experience worse reliability than at present and this will also impact on other services in the central belt.</p> <p>The perception of the majority of passengers affected by these services will be that quality and reliability has deteriorated.</p>	
Private Sector Operator Impacts	Investment Costs	<p>Signalling works required at Arbroath to allow efficient turnback operations. Capital cost estimated as £0.2m at Q1 2009 base.</p> <p>No other capital investment is required to deliver this option.</p>	£970,000 (2002 prices, discounted to 2002)
	Operating & Maintenance Costs	<p>Greenloaning signal box may require to be staffed however this will be covered through the track access fee's levied by Network Rail. The additional train per hour would not result in any additional infrastructure or station maintenance costs.</p> <p>Phase 1 services can be provided by resources currently not utilised in the off peak so only variable costs (fuel, track access, cleaning and servicing) for the estimated annual 118,000 mileage would apply. These are estimated as £0.14m pa.</p> <p>Phase 2 would require 2 additional units (lease costs) 5 drivers, 4 ticket collectors and the variable costs for an estimated annual 220,000 mileage. These are estimated as £1.11m pa.</p> <p>Phase 3 requires 5 additional units, 7 drivers, 5 ticket collectors and variable costs for a 418,000 annual mileage. These are estimated as £2.2m pa.</p>	£95,018,000 (2002 prices, discounted to 2002)

	Revenues	<p>Phase 3 of this option is forecast to generate less revenue than the services provided in Phase 2. This is due to the loss of connectivity for stations north of Arbroath, the loss of an express service between Dundee and Aberdeen each hour and the poorer reliability of the new express services.</p> <p>Accordingly the subsidy required is significantly higher than all other options.</p>	£24,360,000 (2002 prices, discounted to 2002)
	Grant/Subsidy Payments	<p>It is estimated that there will be a subsidy requirement to operate the service around £3.3m per year (2008 prices)</p>	£71,627,000 (2002 prices, discounted to 2002)
Economic Activity and Location Impacts	Local Economic Impacts	<p>Current business use of the route is limited to travel between the key centres of Dundee, Perth, Stirling and Glasgow. This proposal will increase accessibility to these destinations from intermediate stations and will therefore bring GVA benefits to local businesses and may lead to an increase in local output and employment, particularly over the key centres of Stirling, Perth and Dundee. In the future, the increased opportunities for travel to intermediate and wider destinations may lead to increased economic activity for tourism and leisure sectors.</p> <p>Phase 3 whilst improving connectivity for the TACTTRAN area will result in a loss of connectivity for stations between Montrose and Aberdeen.</p>	
	National Economic Impacts	<p>This option will fully achieve the study planning objectives which have been set, which in turn contribute to achieving Local and Regional Transport Strategy objectives. In turn, these have been shown to contribute to national transport objectives, including economy-specific objectives.</p> <p>The anticipated poor reliability of the Aberdeen – Glasgow and Edinburgh express services in Phase 3 is likely to result in a modal shift away from rail on these routes. This conflicts with national transport</p>	

		objectives and is expected to have a detrimental economic impact.	
	Distributional Impacts	Improvements to accessibility through increased choice of service and to all stops also contributes to reliability and travel choice thereby benefiting all sectors of society travelling on the corridor.	

Integration			
Sub-objective	Item	Qualitative Information	Quantitative Information
Transport Interchanges	Services & Ticketing	<p>Whilst the bulk of the stations receiving the new services are unstaffed, the franchisee provides good quality train service information at each location and ticketing facilities are available from the ticket examiner on the train. The facilities available are equivalent to those at the majority of stations on the Scottish rail network.</p>	
	Infrastructure & Information	<p>Three stations will require upgrade if they are to be served by hourly trains through this option. These are:</p> <ul style="list-style-type: none"> • Balmossie; • Barry Links; and • Golf Street. <p>Demand forecasting data indicates that the small revenue benefit to be obtained from calling at these stations is significantly outweighed by the journey time dis-benefits to the passengers using the service from other stations.</p> <p>Invergowrie requires some minor works, such as platform surfacing to make it fit for the increased usage it would experience if provided with an hourly service. These works would be undertaken by Network Rail and paid for by lease charges made by the franchisee, ie. at no net cost to the project.</p> <p>This option splits all services at Perth (other than the three per day which have been timetabled directly between Arbroath and Glasgow). The interchange time between Glasgow – Perth and Perth – Arbroath services is 25 minutes heading to Arbroath and 15 minutes heading to Glasgow. Whilst a shorter interchange time is preferable when heading to Arbroath, demand forecasting showed the benefits of this were outweighed by the performance disbenefits of having a timetable path with more conflicts with services in the Dundee – Arbroath section of route.</p>	

		<p>Perth station is an established interchange station and has appropriate facilities for this function.</p> <p>The other key interchanges are Stirling (for Alloa and stations to Edinburgh) and Dundee (for stations in Fife and to Edinburgh). As with Perth, these stations are already established and well equipped interchanges for rail to rail and rail to bus.</p>	
Land-use Transport Integration		<p>Overall the proposal integrates well with land-use policy and proposals. The proposal will bring a number of positive contributions to a number of the objectives contained in Scottish Planning Policy (SPP) 17: Planning for Transport. The proposal also brings a largely positive contribution to the objectives and policies of the relevant Local Plans across the Region, including a positive effect on connecting business and employment centres across the region with local population centres. Development proposed for Dundee (Harbour area) and the Stirling Major Growth Area will benefit from the increased rail and access opportunities arising as a result of the proposal.</p>	
Policy Integration		<p>The proposal has a strong positive fit with National, Regional and Local policy and, in particular, a strong positive fit with the TACTRAN Regional Transport Policy.</p> <p>However the poor forecast performance of the Aberdeen – Glasgow and Edinburgh express services in Phase 3 will conflict with National policy of encouraging modal shift to rail for intercity journeys. This arises as a function of reduced connectivity across the region and the requirement to change trains which will deter some users. The key negative impact for commuters using the existing express path services, include journey time increases.</p>	

Accessibility and Social Inclusion			
Sub-objective	Item	Qualitative Information	Quantitative Information
Community Accessibility	Public Transport Network Coverage	<p>Public transport network coverage is enhanced and increased through this proposal: the hourly service at all stops increases travel options for passengers at intermediate stations whilst providing connectivity across the region and beyond. As a result of the proposal there will be increased opportunities for on-bound travel to other destinations from the key centres within (and beyond) the region.</p>	
	Access to Other Local Services	<p>Access to other local services is enhanced and increased through this proposal: the hourly service at all stops increases travel options for passengers at intermediate stations whilst providing connectivity across the region and beyond. As a result of the proposal there will be increased opportunities for on-bound travel to other local destinations from the key centres within (and beyond) the region. The proposal also improves local access opportunities for tourists travelling to and through the region.</p>	
Comparative Accessibility	Distribution/Spatial Impacts by Social Group	<p>In Phases 1 and 2, all communities and population centres served by the proposal will experience a positive impact including residents, tourists, businesses and, to an extent, agriculture and leisure, through increased travel to work opportunities and improved service times/frequencies. Whilst Phase 3 offers a wider distribution of accessibility impacts on a geographical basis, the detrimental performance impacts to the express services will have a major negative impact for passengers on intercity rail journeys. The requirement to change trains to travel to stations north of Perth will discourage some social groups for whom seamless journeys are critical.</p>	
	Distribution/Spatial Impacts by Area	<p>The proposal will enhance travel choice and travel opportunities to, between and through the key regional centres of Stirling, Perth and Dundee and the smaller communities and population centres in between. Travel choice and opportunities will also be enhanced for those</p>	

		connecting with onward train and public transport services from the key regional centres as well as the Central Belt. Whilst Phase 3 offers a wider distribution of accessibility impacts on a geographical basis, the detrimental performance impacts to the express services will have a major negative impact for passengers on intercity rail journeys.	
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Cost to Public Sector		
Item	Qualitative Information	Quantitative Information
Public Sector Investment Costs		£0
Public Sector Operating and Investment Costs		£0
Grant Subsidy Payments		£71,627,000
Revenues		£0
Taxation Impacts		£5,144,000

Monetised Summary	
Present Value of Transport Benefits	£51,119,000
Present Value of Cost to Government	£76,771,000
Net Present Value	-£25,652,000
Benefit-Cost to Government Ratio	0.7