

Dear [REDACTED]

Trust you are well.

It is a while since we had a discussion around City Deal, given where negotiations and discussions are at.

I am not aware of anything specific we need to catch up on but happy to assist you if there is anything you need.

We are waiting on movements from Scottish and UK governments, following the recent elections, as to the nature and timescales for the process going forward.

Speak to you soon.

Regards

[REDACTED]

[REDACTED]

Fife Council

[REDACTED]

This email and any files transmitted with it are confidential and intended solely for the use of the individual or entity to whom they are addressed and should not be disclosed to any other party.

If you have received this email in error please notify your system manager and the sender of this message.

This email message has been swept for the presence of computer viruses but no guarantee is given that this e-mail message and any attachments are free from viruses.

Fife Council reserves the right to monitor the content of all incoming and outgoing email.

Fife Council

This email has been scanned by the Symantec Email Security.cloud service.
For more information please visit <http://www.symanteccloud.com>

Hullo,

As you may be aware the Chancellor announced in the budget statement reference to completion of a city deal for the Edinburgh and South East Scotland area.

At this time the 6 Local Authorities are reassessing the proposition and seeking early engagement with the respective representatives of the 2 governments.

In the case of engagement with yourselves I will be in touch as soon as there is some clarity and we have the revised date for the public sector agencies meeting already in the diary for the 25th April.

I am separately through the PMO seeking a date to meet some colleagues on the emerging EY prepared model for infrastructure investments.

[Redacted]

[Redacted]

Fife Council

[Redacted]

This email and any files transmitted with it are confidential and intended solely for the use of the individual or entity to whom they are addressed and should not be disclosed to any other party.

If you have received this email in error please notify your system manager and the sender of this message.

This email message has been swept for the presence of computer viruses but no guarantee is given that this e-mail message and any attachments are free from viruses.

Fife Council reserves the right to monitor the content of all incoming and outgoing email.

Fife Council

This email was scanned by the Government Secure Intranet anti-virus service supplied by Vodafone in partnership with Symantec. (CCTM Certificate Number 2009/09/0052.) In case of problems, please call your organisations IT Helpdesk.
Communications via the GSi may be automatically logged, monitored and/or recorded for legal purposes.

This email has been received from an external party and

Hi [redacted] requested more information on this project from [redacted]. We've broken down the components and provided more information on the basis for the costs. [redacted] has also pointed out that we'd like to include the capital costs in Control Period 6 if possible. Please let me know if you need any more information
Thanks
[redacted]

[redacted]
[redacted] Fife Council,
[redacted]

Fife Economy Partnership 
Website: www.fifeeconomypartnership.co.uk/ Twitter: @FifeEconPship

This email and any files transmitted with it are confidential and intended solely for the use of the individual or entity to whom they are addressed and should not be disclosed to any other party.

If you have received this email in error please notify your system manager and the sender of this message.

This email message has been swept for the presence of computer viruses but no guarantee is given that this e-mail message and any attachments are free from viruses.

Fife Council reserves the right to monitor the content of all incoming and outgoing email.

Fife Council

This email has been scanned by the Symantec Email Security.cloud service.
For more information please visit <http://www.symanteccloud.com>

This email has been received from an external party and
has been swept for the presence of computer viruses.

Hi [REDACTED],

I telephoned and left a voice message.

Following the formal feedback on the STAG report we would welcome an opportunity to discuss the response further.

Given this and communications on The City Deal etc., we would welcome a meeting as soon as practicable.

I appreciate that you offered to visit Fife previously [REDACTED]
[REDACTED] is eager to join the discussion.

Please could you give me a call to discuss dates or suggest potential dates.

Kind regards

[REDACTED]
[REDACTED]

Fife Council
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]

[REDACTED]

Winners of Scottish Transport Local Authority of the Year 2010 and 2011

This email and any files transmitted with it are confidential and intended solely for the use of the individual or entity to whom they are addressed and should not be disclosed to any other party.

If you have received this email in error please notify your system manager and the sender of this message.

This email message has been swept for the presence of computer viruses but no guarantee is given that this e-mail message and any attachments are free from viruses.

Fife Council reserves the right to monitor the content of all incoming and outgoing email.

Fife Council

Job Name: Review of Demand Forecasting Methodology - Levenmouth Sustainable Transport Study STAG Report
Job No: 41594
Date: 22nd June 2017
Subject: Technical Review

Levenmouth STAG - Overall Approach to Demand Forecasting

This paper has been produced in response to a Task Order issued by Transport Scotland under Latis Lot 4 (TS/MTRIPS/SER/2016/02) titled 'Review of Demand Forecasting Methodology – Levenmouth Sustainable Transport Study STAG Report'. The purpose of this paper is 'to review and provide technical advice on the robustness and risks associated with the demand forecasting methodology adopted for the Levenmouth Sustainable Transport Study'. The scope of this review therefore excludes the Transport Appraisal Process, interpreted here to refer to the estimation of economic benefits and all other aspects of STAG.

The focus of this paper is the approach taken to generating **patronage forecasts** for the proposed rail service to Leven, although many of the comments would equally apply to the main bus option developed in the report.

Overview

The central premise to the approach to demand forecasting taken in the STAG is to generate a forecast of **commuting** by mode out of, and into the Levenmouth area, comprising Buckhaven, Leven and Methil, based on Census Travel to Work Data. Although comprehensive, this census data set is now six years old, and there are developing trends for example for working from home, which does mean that the age of this data is starting to become a factor. **No separate forecast of business or leisure trips is made.** For the proposed rail service, a total annual patronage figure (for all travel purposes) is derived for the two new stations using a factoring / annualisation process, and these annual figures are presumably used in the calculations of economic benefits. The annual figures are therefore of key importance.

The study has used a **spreadsheet-based approach** to developing demand forecasts. A spreadsheet-based approach will always be limited in terms of (i) the scope, consistency and accuracy of the behavioural responses included, and (ii) the area wide impacts modelled, in comparison to a test undertaken with a fit for purpose multi-modal model. Whilst suitable for a well-developed Part 1 Appraisal, for a proposal of the scale of the Levenmouth rail option, it is highly unlikely that a spreadsheet-based modelling approach would be adequate for a Part 2 Appraisal and beyond, where forecasts would be subject to a high degree of scrutiny and robust forecasts are therefore required.

The authors do note that there would be value in comparing these results with a test of the option in the SEStran Regional Model (SRM) [para 10.2.6], and it is recommended that such a test is undertaken to provide a fuller appraisal of this option using a recognised modelling tool. It is assumed that the SRM was not used at the time as it was unavailable. It would be helpful if the STAG report contained a discussion of the potential modelling options which may



TECHNICAL NOTE



have been considered at the outset of the study (including eg SRM, TMfS and CSTM12) together with a rationale not using any of these and developing the spreadsheet model.

In general, the derivation of the patronage forecast is not particularly clearly set out in the report and has taken some unpicking. The summary would also benefit from a breakdown of the forecast rail demand for each forecast year by station by source (eg new trip, mode shift from car, switch from bus, switch from existing rail (previously P&R)). A 'flowchart' showing the main steps in generating the patronage forecast would also be helpful.

Context

This may have been set out in earlier reports but it would have been interesting to map the % residents working in Edinburgh for all of south Fife – this would have provided evidence of any anomalous drop-off in the Levenmouth area would have helped demonstrate the 'problem' of poor connectivity to Edinburgh in particular.

Additional useful context would have included mapping showing current rail based commuting out of, within and into Fife. Again this would have provided context, and also a reference point for the subsequent forecast of rail demand at the new stations.

It would also be useful to present the forecast station usage at Cameron Bridge and Leven in the context of the volumes seen at recent station re-openings in Scotland.

What is being forecast?

In reviewing the patronage forecast it is important to be clear on exactly what the forecast patronage actually is, and how it has been derived. No actual patronage figure for the new stations at Leven and Cameron Bridge is quoted in the Executive Summary, which instead focusses on the economic benefits which have been estimated for the scheme. The only reference to an annual patronage figure is found in para 10.10.8, which states:

*'In terms of patronage, this service would result in around **120 return commuter trips using the new stations each day**. Applying the appropriate annualisation factor, which incorporates all journey purposes, the patronage at the Leven and Cameron Bridge stations combined is predicted to be over **340,000 one-way trips per annum**.'*

There are two potential issues here:

- The figure of 'around 120 return commuter trips' is not found elsewhere in the report (or the appendices) so its derivation cannot easily be determined. For example, for option LC1, Table 21 notes 56 'total additional PT 'Commuter return trips per day' in 2022.
- The derivation of the 340,000 figure is not presented - neither of the stated annualisation factors when applied to 120 provides an annual figure of around 340,000. However, one possible derivation of this 340,000 figure is:
 - 120 return commuter trips per day (assumed to be 120 outbound plus 120 inbound commute trips)
 - (b) 0.4 [Appendix F: Total Commuter Station Entries to AM Peak Hour, assumed to be proportion of total commuters allocated to the AM peak hour]
 - (c) 3,554 [Appendix J: Higher Annualisation Factor]
 - (d) 2 - factor to convert return journeys to single journeys
 - (a) * (b) * (c) * (d) = 341,184



TECHNICAL NOTE



Assuming that this is the correct relationship between the 120 figure and the 340,000 figure quoted in text, the source of the 120 figure remains unclear. It is therefore not possible to comment on the details of the derivation of this figure and it would be beneficial if this was set out more clearly in the report, for example with respect to:

- Levenmouth & Cameron Bridge stations
- Inbound to Levenmouth and Outbound from Levenmouth trips
- Walk in / bus access / car P&R (with resulting discussion of required car park capacity)
- New trips
- Mode switch from car
- Abstraction from bus
- Abstraction from other rail, ie switchers from P&R at existing stations – this is important because there is a risk that for example Levenmouth residents with access to a car could continue to drive to eg Kirkcaldy even if the service was extended into Leven to benefit from higher frequency, cheaper fares and shorter journey times (notwithstanding the issues surrounding parking at Kirkcaldy noted in the report) given e.g.
 - Leven to Edinburgh: 65 minutes / hourly
 - Kirkcaldy to Edinburgh: 40-50 minutes / 4-5 per hour
 - This type of behaviour is seen for example where car users travel past stations with lower train frequencies to get to Inverkeithing
- A preferable approach would see potential 'walk in' and 'car-based' demand to the new stations treated as separate entities in the demand modelling, where the latter would represent the choice between the new stations and Kirkcaldy.

It is not clear whether the negative impact of the Levenmouth trains no longer calling at Glenrothes with Thornton has been quantified in the analysis.

There is also mention of the removal of a call at an intermediate station to avoid the requirement for an extended layover at Leven – it is not obvious whether this disbenefit has been accounted for.

It is appreciated that this level of data breakdown may not be possible within the spreadsheet model but these issues should at least be covered in any accompanying economic narrative.

Spreadsheet Model

Paragraph 10.2.2 provides an overview of the method taken for demand forecasting. It would be helpful if the narrative set out at the outset the range of behavioural responses being captured and not captured in the model.

The basic approach undertaken is as follows:

- 2011 Census Travel to Work data has been used as the basis for forecasting
 - A set of 22 zones (7 Levenmouth, 15 non Levenmouth) was defined, with a sub-set of ODs being defined within this – reflecting travel out of and into Levenmouth
- Generalised times for car / best PT / best P&R are determined [noting that the derivation of best P&R is not explained – assumed that this includes drive time; parking charge / train frequency / fare / parking availability]
- Mode choice logit model used to represent current commuting by PT at the level of 10 corridor movements (only 9 listed though)
- This mode choice model has then been used to estimate the impact of the new PT options.



TECHNICAL NOTE



There is no reason to question the basic premise of the spreadsheet model, aside from some potential issues surrounding the derivation of generalised times and the modelling of competition between P&R options.

Derivation of Daily Commuting Demand and Its Allocation to the AM peak hour

The model takes as its starting point total commuting as determined from the 2011 Census. As noted above, the forecasting approach adopted for the STAG appears to produce a weekday AM Peak Hour estimate of new rail based commuting trips, before applying an annualisation factor.

The Census data provides a home address and a work address for all those in employment at the time of the Census in 2011.

However:

- This figure will include part time and full time workers;
- On any given day, only a sub-set of workers will travel to their usual place of work due to e.g.: annual leave, working from home, travelling on business to another destination, sickness etc.; and
- A significant proportion of the workforce does not work regular 'conventional' hours and so would not appear in any peak hour demand.

The report does not clearly set out how total 2011 census commute figures have been translated into an hourly AM peak figure, taking into account the above factors. If the above factors have not been taken into account, there is a risk that the 'base' commute figure from which the rail demand has been derived is overstated, and hence the AM peak commute figure has been overestimated prior to annualisation, which would result in an overestimate of total trip making through the new stations.

It would be helpful if the report set these issues out in more detail.

Appendices

The following sections consider each of the in scope appendices in turn.

Appendix F: Key Demand Forecasting Assumptions

Page 151 to 153 contain a number of parameters and assumptions underlying the analysis of the rail option. The purpose of this section is not completely clear as it is not always obvious how / where these parameters are used. Some comments on selected parameters below:

- *Total Commuter Station Entries to AM peak hour: = 0.4 & Number of hours in modelled period = 2*
 - Unclear what the relationship here is. The factor of 0.4 would be more applicable to a peak hour to 3-hour peak period, and this would also align with the TMfS 3-hour peak period
 - No evidence presented to support the derivation of the 0.4 figure, from for example Travel Diary data
- Commute 1 Way to ORR entries and exit: See comments on Appendix J
- The lambda values noted for Car vs PT and Existing vs. New - would benefit from commentary around these values to gauge their appropriateness



TECHNICAL NOTE



- *Parking Charge in Edinburgh = £10.* This figure has been used in the commuting mode choice model. In reality very few commuters will pay this sort of charge on a daily basis. The decision to commute to Edinburgh is largely driven by whether a private non-residential space is available at their workplace. A preferred approach would be to segment out those with PNR availability from those who do not, as the former group will be unlikely to switch mode and the latter group are unlikely to pay to park in Edinburgh on a daily basis, being far more likely to use public transport or mixed mode (car / train, car / bus, car / walk, car / cycle). However, this is not a major issue.
- *Commuting Days in a Year / Commuting trip adjustment factor:* See previous comments regarding the derivation of peak hour commuting demand.
- The role of the parameters from 'increase – chosen year' to the bottom of that page is not clear.
- The following page (page 153) lists a set of parameters used in building up the generalised times in the model. Has service frequency been taken into account?

Appendix G: Daily Commuter Travel Demand by OD Pair

This appendix appears to be an aggregation of Census TTW data with forecasts applied based on a projection of the number of future employed adults in Fife, drawn from TMfS12 / TELMoS. A number of these zone pairs imply a high degree of commuting growth between 2012 and 2032 especially in the Levenmouth area. A sensitivity test based on a continuation of the 2022 figures would be a helpful datum. Total figures for each year would also be helpful.

Appendix H: Representative Postcodes Used for Traveline Data Searches

No Issues

Appendix I: Predicted Demand by Travel to Work Corridor

This appendix provides some further detail on the nature of the forecast demand for the rail service and other public transport options. A figure of 55 additional commuter return trips per day (page 163) is reported as using public transport (i.e. switching from car), and this aligns with the figure for Scenario LC1 in Table 21 of the main report (which suggests that 56 car based commuters switch to public transport, 44 to PT and 12 to P&R – difference between 55 and 56 assumed down to rounding).

Total car commuting in the study area is forecast to reduce from 6,432 (6,376 + 56) to 6,376, a reduction of only around 1%. P&R use also increases which implies additional car trips which will offset this saving.

As well as a switch from car to rail, within this forecast, Appendix I notes that this figure of 55 comprises for the main corridors under consideration:

- A very large drop in bus, from 477 to 122 (-354)
- A very large increase in mixed (assumed here that 'mixed' means bus + rail, as P&R is handled separately) from 165 to 517 (+353)
- An increase from 0 to 45 rail commuters (+45)
- An increase in P&R use from 208 to 220 (+12)

There is therefore a very large modelled switch from 'bus' to 'mixed' – this appears counter intuitive as evidence from elsewhere suggests that bus / train mixed commute mode journeys are not commonly undertaken, given that it requires two wait times and an interchange. Also this figure implies a 74% reduction in bus-based commute which appears very large.



TECHNICAL NOTE



Any reduction in demand on bus services could lead to a supply side response as has been the case with the Borders Railway where some bus services in the corridor have been scaled back in response to the line.

The analysis would benefit from a greater discussion regarding the impact of the proposed new stations and service on P&R use in Fife.

The report would benefit from commentary surrounding these modelled behavioural changes.

In addition, it is not clear how the figures within the table on page 163 sit within the rail demand forecast. Assuming that 'mixed' means bus / rail, this suggest 353 + 45 + 12 additional 'commuter return trips per day' which involve rail a total of 410 which does not align with other figures in the report.

In terms of **geography**, this table suggests that in 2022:

- Only 10 of the 55 of the new rail trips are from Levenmouth to Edinburgh
- The majority, 30 are between Levenmouth and Kirkcaldy

The forecasting suggests a high degree of intra-Fife commuting by rail using the new stations. A review of Datashtine Scotland (Census TTW ODs) suggests that intra-Fife rail commuting forms a very small proportion of total rail commuting from Fife. It is therefore doubtful that such a high proportion of the forecast commuter rail use would be intra-Fife. The evidence suggests relatively little of this takes place at present and if this does not materialise, the outturn may fall short of forecast. As an example, there is relatively little travel between stations on the Borders Railway compared to travel to and from Edinburgh.

In terms of **timescales**, the modelling suggests 55 additional public transport commuter trips in 2022 with the new stations rising to 302 in 2032. By 2032 the forecast additional Levenmouth to Edinburgh increases from 10 to 98. This implies that the benefits of the scheme may be very sensitive to the underlying planning assumptions with respect to growth in the Levenmouth area between 2022 and 2032. This must be considered a forecasting risk.

The generation of benefits may therefore be **highly reliant on a substantial increase in development** in the Levenmouth area which may not materialise. Suggest a sensitivity test where development levels are retained at 2022 levels.

Appendix J: Estimation of Annualisation Factors

The demand forecasting exercise undertaken for Scenario LC1 concludes that around 120 return commuter trips would use new stations each day, although as has been noted, the derivation of this figure is not entirely clear. This figure has been translated into an annual all-purpose rail patronage figure of 340,000 1-way trips per annum on the basis of an annualisation figure derived from ORR data and TMfS12 modelled commuter demand.

Appendix J sets out the annualisation figures derived in the study. The Appendix refers to 'TMfS12 Commuter Demand'. However, it is not clear whether this is referring to:

- Outbound, inbound or outbound + inbound; or
- AM peak hour, AM peak period or all day

Clarification of these points would be helpful, but it is assumed for these purposes that the figure drawn from TMfS12 is 'outbound + inbound' AM Peak hour, as this would be consistent with the narrative set out previously in this note.



TECHNICAL NOTE



Rail demand is typically considered in three categories – commute, business and leisure. Each individual station will have a different profile of these three journey purposes depending on eg its location relative to major employment centres, its attractiveness as a 'destination' as well as an 'originator' of trips, and its proximity to other stations where service patterns, parking and fares may differ. This mix is highly variable will therefore have a fundamental impact on the process of annualising from an AM Commute figure at any given station.

The annualisation factors derived here for the Fife stations range from 800 (Lochgelly) to over 7,000 (Burntisland), a very wide range. Weighted average values for all Fife stations (2,539) and Fife coastal stations only (3,554) have also been derived. **It should be noted that these annualisation factors will only be of real validity if the modelled values in TMfS12 used in their derivation are closely matched to peak hour observed station patronage.** If the figures in TMfS12 are very different from ORR observed station flows, the factor derived here will be misleading. No evidence is presented to support this and hence 'validate' the annualisation factors. Calibration figures relating to passenger flows at stations from the TMfS12 Model Development Report may be helpful in this respect. As further validation, it would be useful if these annualisation factors could be benchmarked against figures derived from, for example on-platform station surveys undertaken elsewhere in Scotland.

In addition, for consistency, it essential that the annualisation factor, if derived from the TMfS 'average weekday AM Peak Hour inbound & outbound commuting' value is applied to an estimate of the 'average weekday AM Peak Hour inbound & outbound commuting' at Leven and Cameron Bridge stations, and it is not completely clear that this is the case, ie the report does not spell out how 'average weekday AM Peak Hour inbound & outbound commuting' has been derived from 2011 Census Travel to Work data.

As noted previously, it is assumed that the 'total Fife Coast' annualisation factor of 3,554 has been applied to AM peak hour commuting to generate an annual total station usage figure. The table below shows the range of annual figures which *could be* derived based on the use of different annualisation factors.

	Study generated new stations AM Peak forecast (assumed here to be 120 * 0.4)	Implied Annual Usage at New Stations (entries and exits)
Lochgelly factor (795)	48	76,320
Total factor (2,359)	48	226,464
Total Fife Coast factor (3,554)	48	341,184
Burntisland factor (7,429)	48	713,184

Depending on the annualisation factor used, annual patronage could therefore vary between 76k and 713k and this represents a very large range of outcomes, with the upper end of the range being almost a factor of 10 greater than the lower end.

The very wide range of annualisation factors introduces a major degree of uncertainty into the annualisation process. The use of averages does even this variation out some degree but **even a small change in the annualisation factor employed would have a material impact on the passenger forecast**, and hence the benefits calculated and BCR. The use of these factors therefore represents a significant risk which should at the very least be explored in sensitivity testing.

Conclusions

The Conclusions are split into two areas covering (i) overall approach taken, and (ii) technical points associated with the patronage forecasts.

Overall Approach Taken

The overall approach taken has been to develop a spreadsheet-based model to generate a forecast of AM peak hour rail commuting demand to and from the new stations at Leven and Cameron Bridge, based on a combination of (i) Census travel to work data from 2011 and (ii) a mode-choice model populated with local generalised time data. This figure has then been factored up to an annual, all travel purpose patronage figure using factors derived from TMfS12 station demand data and ORR Station Entry and Exit Data. A significant number of assumptions have been made in developing the spreadsheet model which are not explained in full. It would have been helpful had an Assumptions Log been provided as an accompaniment to the main report.

Whilst this type of 'sketch' based approach is suitable for a well-developed Part 1 Appraisal (for example to provide a broad order of magnitude indication of benefits), it cannot be considered appropriate for a Part 2 Appraisal. For a Part 2 Appraisal of a scheme of this scale (both in terms of capital cost and the scope of impacts (across modes and geographies)), it would be expected to see the proposal tested in an area-wide, fit for purpose, calibrated and validated multi-model transport model. Such a model would be based on recognised data and behavioural response parameters which would have been independently audited, providing a degree of confidence in the results which cannot be drawn from an un-audited spreadsheet model.

In terms of the report, it is not possible to fully and easily trace the derivation of the forecast patronage figure of 340,000 for the two new stations at Levenmouth using the material presented, and no figures for the individual stations are included. The presentation of the derivation of these figures is somewhat opaque and the space given over in the report to this topic is perhaps not proportionate, compared to the space given over to other aspects of the study, given the central importance of demand forecasting in a STAG Part 2 Appraisal. More generally, the topic of demand forecasting would benefit from a Technical Appendix detailing the process on a step-by-step and transparent basis.

In addition, and importantly, there is very little commentary in the report regarding the nature of the forecast users of Levenmouth and Cameron Bridge stations. Confidence in the forecasts would increase if the reader was able to understand:

- (i) the **nature of the journeys forecast to be undertaken through the new stations** in terms of (a) origins of 'inbound to Levenmouth' and destinations of 'outbound from Levenmouth' trips, (b) peak and off peak demand, (c) journey purpose, and (d) how these may change over time; and
- (ii) the **counterfactual** – ie what would the forecast users of the new stations have done in the event of the new service not being introduced – this helps to understand the derivation of the economic benefits.

It is difficult to comment on how plausible the forecast is without this sort of information. If these details were explained, the patronage forecast could be seen / 'validated' in the context of the behaviours observed at other recent station re-openings in Scotland.



TECHNICAL NOTE



Overall the approach employed in the STAG to demand forecasting is **highly sensitive to a range of assumptions** made in the spreadsheet model, and this impacts on the degree of confidence with which the results can be treated. Further analysis would be required to reduce this level of uncertainty and increase confidence in the forecast.

Detailed Technical Points

The main areas of specific risk with respect to the patronage forecasts about which more clarity could be sought are:

- The **derivation of AM peak hour commute figures** from total 2011 Census figures. There is a risk that the forecast has been derived from a base daily commuting figure which is too high, having not fully accounted for the range of factors which determine what percentage of the workforce actually travel to work on any given day – this would have the effect of inflating the forecasts.
- The treatment of P&R choice in the mode choice model, in particular **P&R at Kirkcaldy versus the new stations** and the representation of higher frequency services there. This would be a key choice facing Levenmouth residents in the event of a new service to Leven and the issues around this are not explored in the report. If this choice is not accounted for there is a risk that the forecast patronage is overestimated as Levenmouth residents may continue to drive to Kirkcaldy.
- The within-mode behavioural responses appear to include a large **switch from bus to bus-rail** - previous station access survey data suggests that bus-rail commuting is not common. The geographical distribution of the new rail trips and the apparent **reliance on intra-Fife rail-based commuting** which is not a major market at present. These points relate to the nature of the forecast users of the new service. If the forecasts are reliant on travel behaviours which are not commonly found, there is a risk that patronage is over-estimated.
- The potential sensitivity to **future development aspirations in Levenmouth**. If the quantum of development in the Levenmouth area is not reached, this would have a material impact on the 2032 patronage figures and hence the economic benefits and the BCR.
- The **annualisation factors** used to gross up AM peak hour commuting to annual station entries & exits. The annual patronage figures and hence economic benefits derived in the report are highly sensitive to these assumptions regarding annualisation and this is a significant risk.
- There is little clarity on the **potential negative impacts** at other Fife stations with the recasting of services to serve Levenmouth, particularly at Glenrothes with Thornton. It is also not clear if these impacts have been quantified in the analysis.

Given the potential risks and uncertainties associated with a 'sketch' approach of this nature, it is recommended that the Levenmouth scheme be tested in an appropriate multi-modal transport model to provide a consistent and comprehensive area-wide demand forecast and economic appraisal, before being progressed further. Note though that bespoke enhancements may be required to the selected model before such a modelling exercise is undertaken.



[Redacted]

I have attached our comments on the updated STAG report. As discussed at our recent meeting, we are happy to meet you again.

Please let me know when would suit you best to meet.

Thanks

[Redacted]

[Redacted]

Transport Scotland

[Redacted]

Transport Scotland, the national transport agency
Còmhdhail Alba, buidheann nàiseanta na còmhdhail

 @transcotland

 [transcotland](https://www.facebook.com/transcotland)

Levenmouth Sustainable Transport Study - STAG Report (December 2016)

Transport Scotland Response

Thank you for the opportunity to comment on the updated Levenmouth Sustainable Transport Study STAG Report (December 2016).

Overview

We had constructive meetings on 18 April and 21 June 2017 to discuss the updated Levenmouth Sustainable Transport Study STAG Report (December 2016). Key points discussed included:

- It is not clear that the updated report has progressed as most of the comments and issues raised previously have not been addressed.
- The transport problems and opportunities summarised in 3.6 are not supported by evidence and there is a lack of clarity on how transport connectivity contributes to these problems and opportunities. For example, there is a reliance on the relatively modest level of responses to the public surveys, but the information presented in the report shows that the number of existing residents who to travel to work in Edinburgh is very small with most journeys taking place within the Levenmouth area. There is a lack of supporting evidence in the report to indicate a transport solution based on a major investment in improving transport connectivity between the Levenmouth area and Edinburgh. The evidence within the report to support the demand for rail freight is also weak.
- The lack of evidenced transport problems and opportunities affects the whole of the Transport Appraisal. It isn't possible to understand how the transport problems lead to transport planning objectives and generated transport options (6.2.8). Figure 18 sets out to show the links between the problems, opportunities and objectives but does not explain these links and is confusing.
- There are very low passenger forecasts from Levenmouth to Edinburgh for the rail option (98 additional PT trips per day in 2032). Most of the forecast demand for rail travel appears to be local in nature, i.e. between Levenmouth and Kirkcaldy/Glenrothes.
- There is a lack of transparency in the demand forecasting approach and the numerous assumptions made at each stage which means that it is difficult to follow the audit trail through to the final emerging figures. There is also a lack of clarity on changes in mode and abstraction from buses. The spread-sheet based approach adopted, while suitable at the initial appraisal stage, is not considered appropriate for use at the detailed appraisal stage.
- The lack of evidenced transport problems and opportunities and lack of understanding of the linkage between evidenced problems, transport planning objectives and transport options means that the rationale for the emerging options, Options A and B, isn't clear. Also the justification for the recommendation to progress with the development of Option B – reopening of the rail link between Thornton North Junction and Leven for passenger and freight services which has a BCR of 1.31, compared to Option A which has a BCR of 5.19, isn't clear.

- The letter accompanying the updated report advises that the Council considers that the wider economic impacts of the Levenmouth rail link (Option B) will be greater than those predicted for the Borders project. It would be beneficial for the analysis of wider economic impacts which supports this to be included in the revised Levenmouth Sustainable Transport Study STAG Report.

Further, more detailed, comments on the revised report are provided below and in the attached report. Transport Scotland is happy to continue to provide advice to Fife Council, if requested, on the development of the Transport Appraisal to ensure that it is coherent and robust.

Detailed Comments

1.1.4 – The report appears to rely on the views shared in responses to a public survey and a business survey as evidence of transport problems. Only 76 responses (0.2% of the Levenmouth population) were received in response to the public survey and only 22 responses were received for the business survey. This level of response represents a low sample sizes for each group and the results therefore need to be treated with caution. While stakeholder views should inform the appraisal, the identified transport problems in the study area need to be underpinned by evidence.

3.2 – Access to Employment and Services – it would be beneficial to understand how the levels of accessibility in Levenmouth in this section compare to similar areas elsewhere in Scotland.

Appendix A refers to a number of issues that do not appear to have been explored in the report. These include comments regarding the existing bus network, bus journey times and frequency. These bus related issues were again raised verbally at consultation events (referred to in 9.2.7).

3.2.17 – the report states “in terms of where improvements to the public transport network should be focused, enhancements to services to the rest of Fife and Edinburgh were considered most important by respondents to the business surveys”. No details are provided as to how many people stated this. It would be beneficial to separate the “rest of Fife” responses from the “Edinburgh” responses.

3.2.18-21 – Public Transport Services to Edinburgh – comparisons are made between Levenmouth and other settlements. However the other settlements listed have different demographics to the Levenmouth area and therefore any comparisons need to be treated with caution. It is noted that the percentage of existing Edinburgh travel to work trips for Levenmouth (3%) is similar to that of Kirkcaldy (6%) which has direct access to a rail station. The information presented in Table 7 does not provide evidence of transport problems in the Levenmouth area or, as indicated in 3.2.18, provide evidence of “a pattern of correlation between good public transport provision and the proportion of workers commuting to Edinburgh”.

Appendix A - Is there any evidence of suppressed demand of people wishing to commute to Edinburgh from the Levenmouth area? From Appendix A it is clear that the public survey asked about journey modes and purpose, however it appears that the survey did not ask where people are travelling to currently, or where they would like to be able to travel to. This would have helped to give anecdotal information about the presence of any suppressed demand.

3.2.29-31 – the evidenced transport problems resulting from “congestion” have not been explained in the report. Whilst it is acknowledged that there has been traffic growth on key corridors in the area, the evidenced transport problems which result are not clear. Details of the evidenced transport problem resulting from “congestion” should be included in the report, if this is an identified transport problem.

3.2.31 – this paragraph is incomplete.

3.2.33-35 – Road Accidents – it appears that no safety issues have been identified for the appraisal to consider as plans are already in place for interventions at the accident locations identified. It would be helpful to clarify this in the report.

3.2.36 – with regard to HGV traffic volumes it is stated in paragraph 3.2.36 that the analysis of traffic flow data does not support the perception of high levels of HGV traffic in the area, yet in various places in the report the reduction of HGV traffic in the area is included as a “benefit” of the rail options.

3.3.8-3.3.11 – Rail Freight – The evidence in the report to support demand for rail freight is weak. Of the 22 responses received to the business survey, only 13% (2-3) indicated that rail could potentially be used to move freight for their business. Diageo and their logistics provider WH Malcolm are the largest identified opportunity for rail freight. No evidence, however, has been provided with regard to their current views and their likelihood to use such a facility.

3.3.16-3.3.18 – Active Travel – opportunities for active travel locally within Levenmouth are considered however no mention is made of opportunities to promote cycling between Levenmouth and Kirkcaldy/Glenrothes. These two areas are potential trip attractors for employment, education and leisure and are located within reasonable cycling distance of Leven (6 and 9 miles respectively).

3.4 – Issues – details are provided of the proposals included within the Levenmouth Strategic Development Area and Local Plan. It would be beneficial to understand how these developments have been assessed to date, the expected demand generated, the expected impact on existing transport and details of any mitigation proposed. The report does not make clear if the Transport Appraisal is seeking to address the transport impacts of the development proposals.

2.1-3 and 3.1-5 – There are a significant amount of tables, figures and information in the sections of the report preceding 3.6, although there is a lack of clarity and focus on the evidenced transport problems that the Transport Appraisal is seeking to address.

3.6 - the transport problems and opportunities summarised in 3.6 are unclear and are not underpinned by evidence. For example, there is a lack of clarity on how "large" journey times to central Edinburgh by public transport and /or the need to interchange emerge as transport problems for the Levenmouth area. How does transport connectivity contribute to the listed problems and opportunities? There is a lack of supporting evidence to indicate a transport solution based on a major investment in improving transport connectivity between the Levenmouth area and Edinburgh. The vast majority of commuting is currently within Levenmouth itself and to Glenrothes and Kirkcaldy. There is no apparent evidence of suppressed demand of people wishing to commute to Edinburgh. Additionally, significant HGV traffic to/from the area is summarised as a problem, yet section 3.2.36 identified this as a perceived issue only and that traffic data shows that HGV volumes are not a significant issue.

Figure 18 - The lack of evidenced transport problems and opportunities affects the whole of the Transport Appraisal. It isn't possible to understand how the transport problems lead to transport planning objectives and generated transport options (6.2.8). Figure 18 sets out to show the links between the problems, opportunities and objectives but does not explain these links and is confusing. There is, for example, a degree of repetition in the problems and opportunities listed against individual objectives which suggests that there may be too many objectives.

The objectives are still relatively generic and don't provide a focus towards an outcome based on a transport intervention. The objectives should be clearer on the transport changes being sought by the Transport Appraisal and how these reflect and link to the evidenced transport problems.

6.3.18 – the report states that option 3 will have a small positive impact on access to employment, education, healthcare and leisure destinations due to the reduction in HGV traffic. The high HGV traffic volumes in the area were assessed to be a perceived issue therefore it is not clear how an accessibility benefit would be created here.

7.5.9-15 – there is no mention of Options 7 or 8 under the EALI criterion.

7.5.16-17 – it would be beneficial to reference all options in the Economy Appraisal Summary.

7.7 – the bus and rail options all score as moderate positive under the accessibility criteria. We may have expected to see a difference here, particularly under comparative accessibility, given the cost difference between bus and rail options.

Table 16 – Option 2 scores only as a minor positive against all TPOs. Considering the evidence shows that the majority of people work relatively locally (30% Levenmouth, 12% Glenrothes and 12% Kirkcaldy) we would have expected greater benefit in regards to TPOs 1 and 2.

9.2 – A total of 17 comment forms were returned from four events. The report states that the "re-opening of the existing out-of use rail line.....was identified as the

preferred option by the majority", however, the low number of forms received is noted.

9.2.8 – in terms of the likely level of usage of a freight line, the Fife Energy Park state that they would not expect a high level of demand for it or indeed that it would even be a 'nice to have' option. This, along with the lack of recent discussion with Diageo on their likelihood to switch to rail freight, raises questions over the viability of this aspect of the option.

Table 19 – Option 4 estimated journey to Edinburgh listed as 15 minutes which is an error. 15 minutes is the journey time of the Leven-Kirkcaldy shuttle, not to Edinburgh.

10.2.2 - the reason behind the choice of "generalised time" for the mode choice process isn't clear. Has cost been considered in the mode choice process?

10.2.6 - has the forecast demand emerging from the spread-sheet based method developed been compared with the forecast demand from the SEStran Regional Model (SRM) as recommended in 10.2.6?

10.9.2 – the report refers to stakeholder consultation with Diageo and WH Malcolm. No details, however, are provided in the Appendices to indicate the content and date of these discussions.

Appendix I – there are very low passenger forecasts between Levenmouth and Edinburgh for the rail option - 98 additional PT trips per day in 2032. Most of the forecast demand for rail travel appears to be local, i.e. from Levenmouth to Kirkcaldy and Glenrothes.

10. "Option Appraisal and Demand Forecasting" - Further comments on demand forecasting are included in the attached report.

Table 33 – this table contains references to rail freight which suggests that it is the "EALI Overview" for Option B only. There does not appear to be an EALI Overview for Option A.

11.9.29 – the detailed appraisal accessibility scores for the bus and rail options are the same (moderate benefit). It could be argued that the Comparative Accessibility score for the rail option should score lower due to the fare cost potentially excluding some people.

11.10 – The evidence to support the justification for the difference in scoring between Options A and B against the Transport Planning Objectives is not clear. For example, it is not clear why Options A and B score differently against TPO 1 when they scored the same under Accessibility and Integration Criterion.

11.7.32 & Table 34 – the performance of Options A and B in the detailed appraisal against the Economy Criterion does not support the higher scoring of Option B as indicated in Table 34, particularly as Option A offers better value for money in terms of the Benefit Cost Ratio.

The report would benefit from the inclusion of an analysis of wider economic benefits.

12.2.3 It is noted that the costs for the rail option are based on information gathered in 2008.

12.2.5 – Table 39 – are the timescales for the expected year of opening (for both options) realistic?

12.5.1 – it is stated that no grant or subsidy payments are required for Option B as the additional public transport revenue exceeds the assumed operating cost. There are few existing rail lines where this is the case, therefore this is considered a substantial risk.

14.2 – Table 47 – active travel mode share should be included within the indicators considering the number of Levenmouth residents who currently work within the local area.

15 – The lack of evidenced transport problems and opportunities and lack of understanding of the linkage between evidenced transport problems, transport planning objectives and transport options means that the rationale for the emerging options, Options A and B, isn't clear. Also the justification for the recommendation to progress with the development of Option B – reopening of the rail link between Thornton North Junction and Leven for passenger and freight services which has a BCR of 1.31, compared to Option A which has a BCR of 5.19, isn't clear.

Hi

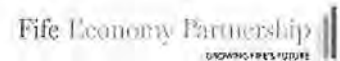
A draft agenda is attached for the meeting on Wednesday. Please let me know if you need any changes to this.

I have also attached the latest Framework for Discussion with the UK and Scottish Governments as background to current thinking on the City Deal priorities. Please note that this is confidential and not for sharing more widely at this stage.

Thanks

[Redacted]

[Redacted]



Twitter: @FifeEconPship

Website: www.fifeeconomypartnership.co.uk/

This email and any files transmitted with it are confidential and intended solely for the use of the individual or entity to whom they are addressed and should not be disclosed to any other party.

If you have received this email in error please notify your system manager and the sender of this message.

This email message has been swept for the presence of computer viruses but no guarantee is given that this e-mail message and any attachments are free from viruses.

Fife Council reserves the right to monitor the content of all incoming and outgoing email.

Fife Council

This email has been scanned by the Symantec Email Security.cloud service.
For more information please visit <http://www.symanteccloud.com>

Edinburgh and South East Scotland City Region City Deal Meeting

Transport Scotland

Wednesday 22 June at 12:00-13:30pm

Room G17 City of Edinburgh Council, Waverley Court, Edinburgh

Chair: [REDACTED]

Agenda

1. Introductions and agreement on meeting objectives
2. Update on City Deal discussions with Governments
3. Transport Scotland - Expectations and Requirements
4. Overview of Transportation projects:
 - 3.1 Innovation Hubs
 - 3.2 Infrastructure Projects
 - 3.3 Housing Programme
 - 3.4 Tourism and Culture proposals
4. Alignment with other Projects
 - 4.1 SESPlan Cross Boundary
 - 4.2 West Edinburgh
5. Date of next meeting
7. AOCB

Background information: Draft Framework Document (Confidential)

Attending:

- Transport Scotland: [REDACTED]
- City of Edinburgh Council: [REDACTED]
- Fife Council: [REDACTED]
- Midlothian Council
- SESPlan: [REDACTED]