4a Fraserburgh and Peterhead to Aberdeen Strategic Transport Study

o Purpose of Report

The purpose of this report is to update members on progress regarding the ongoing strategic transport study on the corridor between Fraserburgh and Peterhead to Aberdeen.

o Background

As members will recall, Nestrans' Regional Transport Strategy contains a commitment to undertake a study into the issues and problems relating to strategic transport movements north from Aberdeen to Ellon, Peterhead and Fraserburgh. This is intended to include examining the potential for rail or other mass transport options and issues relating to connectivity and the limitations of the existing roads.

As reported to the Board in April 2015, a consortium of consultants led by SIAS Transport Planners in association with Peter Brett Associates and Energised Environments (formerly Natural Capital) have been commissioned to undertake the work and a Steering Group has been established consisting of representatives of Nestrans, Transport Scotland, Aberdeenshire Council and Aberdeen City Council.

o Progress

The consultants have conducted key consultations in the form of stakeholder workshops and have held a series of targeted meetings and consultations with appropriate groups and individuals. An opportunity was provided for elected members and MPs/MSPs to input and for public consultations to take place. A Members briefing was held at the Buchan Braes Hotel in Boddam on Thursday 25th June and the slides and note of that briefing are available from the Nestrans' website:

http://www.nestrans.org.uk/db_docs/docs/Energetica_-_FPASTS/Members_Briefing_Buchan_Braes_18_June_2015.pdf

http://www.nestrans.org.uk/db_docs/docs/Energetica_-_FPASTS/FAPTATS_-_Members_Briefing_from_25th_June_FINAL.PDF

o Baseline Report

The consultants have now produced a Baseline Report, which outlines the results of the consultations, the key issues raised and details the results of the information gathering phase which has been conducted. The report is available from the following link:

https://drive.google.com/file/d/0B_oDLg34gtICTEhVUWIzMDRKU0E/view

An Executive Summary of the Baseline Report is attached as **Appendix 1** for members' information.

o Next Steps

The study will follow the Scottish Transport Appraisal Guidance (STAG) and the next stage is to produce a Pre-Appraisal study. This will build on the Baseline Report, identify appropriate Objectives for the project and consider Options for detailed appraisal.

The consultants have produced and submitted a Draft Pre-Appraisal Report for client group comment. This is likely to be concluded over the next few weeks and will be reported to a future Nestrans Board meeting once finalised.

Thereafter, detailed Appraisal can be undertaken assessing each of the short-listed options against the objectives. It is anticipated that public consultations will take place over the autumn and that a stage 1 assessment report will be available early in 2016.

o Recommendation

It is recommended that the Board:

a) Note the contents of this report and the Baseline Report

RD/12 August 2015

APPENDIX 1

Fraserburgh and Peterhead to Aberdeen Strategic Transport Study Baseline Report

EXECUTIVE SUMMARY

The purpose of the Fraserburgh and Peterhead to Aberdeen Strategic Transport Study is ***to identify and examine the options for improving strategic transport connections between Fraserburgh, Peterhead, and Aberdeen including incorporating the Energetica Corridor***.

The Study will examine all modes of transport including rail, bus, road, and active travel connections. The Study was borne out of a commitment by Nestrans (The North East Scotland Transport Partnership) in their Regional Transport Strategy (RTS) Refresh in 2014 when there was strong support during consultation to examine the costs and benefits of re-opening the Formartine & Buchan railway line. In response to this, the RTS Refresh contains a commitment to carry out an all modes study of the corridor from Fraserburgh and Peterhead to Aberdeen.

In collaboration, SIAS Limited (SIAS), Peter Brett Associates, and Energised Environments (the Consultant Team) have been appointed by Nestrans to undertake the Fraserburgh and Peterhead to Aberdeen Strategic Transport Study. To inform the Study a wealth of background data has been collected, collated, and analysed to provide context for the Study from a policy perspective, an economic and social context, as well as a transport context, with consideration of all modes of transport. The key learnings from this analysis form an essential element in the Study and, along with the outcomes of the Study's wide ranging engagement programme, will identify the problems and opportunities for the area, and inform the development of the Study objectives and transport options to be appraised. There are a number of key points highlighted throughout this report that state what we believe are the most significant Study Area characteristics and trends which will be considered as the Study progresses and these are discussed here.

Policy

There are a number of key policies, strategies and plans at the national, regional and local level relating to transport, planning and the economy, which have an influence on the Study and will be considered as the Study progresses, being particularly pertinent during the setting of the Study objectives. Guided by the Scottish Government's Economic Strategy, the National Transport Strategy (NTS) provides the Scottish Government's overarching strategic outcomes for transport, with investment in the transport network supporting these outcomes through the Strategic Transport Projects Review (STPR) and the Infrastructure Investment Plan (IIP). The Aberdeen Western Peripheral Route and Balmedie to Tipperty dualling, both contained within the IIP, will have a significant impact on the transport network within the Study Area. Additionally, the STPR investment summary includes *Route Management on other Road Corridors* and lists Aberdeen and North-East Scotland (A90) as one of a number of routes for implementation of "a series of initiatives to implement road-based improvements with a combination of network optimisation through route management and targeted investment in relatively local interventions".

Aligned to the NTS, the RTS is the key transport document at the Aberdeen & Aberdeenshire regional level and has four objectives relating to:

- Economy
- Accessibility, Safety & Social Inclusion
- Environment
- Spatial Planning

The RTS sets out a wealth of actions to target these objectives and includes actions relating to both external and internal connections by sea, air, road, and bus, demand responsive transport, transport interchange, walking, and cycling, surface connections to the airports, ports, and freight. The Action Plans which sit alongside the RTS outline key actions, of which many are pertinent to the Study Area.

The RTS, and the actions contained in it, take cognisance of the biggest transport development taking place in the North-East, the Aberdeen Western Peripheral Route (AWPR) (including the Balmedie to Tipperty dualling), which will have a significant impact on the transport network within, to and from the Study Area with actions developed to ensure the benefits of the AWPR will be 'locked-in' for all modes of transport. The RTS actions are also guided by the likely impacts of the key regional planning document, the Aberdeen City and Shire Strategic Development Plan, and the Aberdeen and Aberdeenshire Local Development Plans, and their future impact on the transport network. These documents are guided by the Scottish Government's National Planning Framework. In the Local Development Plans, large areas of allocated development land are provided for at Fraserburgh, Peterhead, Mintlaw, and Ellon as well as at Dyce, Grandhome, and the Bridge of Don and this expected increase in homes, employment opportunities, and overall population will all impact on an already congested transport network.

Key industries are targeted as part of the economic plans for the area and these include life sciences, energy, tourism, and agriculture & fisheries. Aberdeen City & Shire's Economic Future's (ACSEF) Energetica project, with its priorities for a high quality place to live and work, is the flagship economic project in the Study Area and since the projects inception in 2008 has already undertaken a number of development, technology, and business projects to work towards the transformation of the areas into a world-class energy centre, with renewables at its core.

The Aberdeen City Centre Masterplan, which includes the pedestrianisation of Union Street, suggests that a future step-change in transport towards reduced use of the private car will be required in accessing the city centre, which will influence travel choice to the city from the wider region in the future. In the development of the objectives for the Study, the aims, priorities, and objectives of all over-arching policies, plans and strategies will be considered and key elements relating to reducing peripherality, supporting key industries, and enhancing accessibility while tying in to the renewables ethos of the Energetica project will be incorporated.

Economic & Social

The discovery of North Sea oil in the 1960s and 1970s transformed Aberdeen into Europe's oil capital and one of the leading oil related service centres in the world. Capacity constraints in Aberdeen, particularly in terms of the harbour and available industrial premises, have led to a gradual spread of activity into Aberdeenshire, however, recent uncertainty in the oil and gas industry (more generally) is now a challenge for the area.

There have also been challenges in the fishing and agricultural sectors which are key economic drivers in the Study Area. The whitefish ports of Fraserburgh and Peterhead (amongst others) were negatively affected by the European Union (EU) quotas implemented in the early 21st Century. Despite these challenges, Aberdeen City and Aberdeenshire remain important centres for energy, agriculture, and fishing. There are also significant economic opportunities in the area, including in decommissioning, offshore renewable servicing, and carbon capture & storage. In addition, in terms of future development, the Aberdeen City and Shire region is expected to be the fastest growing in Scotland over the next 20 years (*Source: Aberdeen City & Shire Strategic Development Planning Authority).*

The total population of the Study Area is approximately 220,000, equating to around 45% of the overall population of the combined Aberdeen and Aberdeenshire area. Outside of the Aberdeen conurbation (including the Bridge of Don and Dyce), the Study Area has a relatively small population (around 70,000) and low population density, with the two largest settlements at Peterhead (population approximately 18,500) and Fraserburgh (population approximately population approximately 13,000), and with Ellon (pop. approximately just over 10,000) the only other settlement with a population of over 10,000. The population of the Study Area has grown overall between 2002 and 2013, although the overall growth has been largely concentrated in the southern sections closest to Aberdeen, highlighting the economic pull of the city.

The Study Area has a slightly wider demographic mix than the wider Aberdeen and Aberdeenshire area, and Scotland as a whole. With a higher proportion of young people and a lower proportion of people

approaching or above the retirement age. There is a clear north-south divide in terms of occupations. The southern section is dominated by the types of occupations associated with Aberdeen City, while the northern section is focussed more on skilled trade occupations.

There is a lower economic activity rate in the northern sections of the Study Area, particularly Fraserburgh and the Rural North. Unemployment in the north-east is exceptionally low and is well below the 'natural' rate of unemployment, hinting at the labour shortage in Aberdeen and Aberdeenshire generally. In the Study Area, unemployment is notably higher (although still well below the national average) in the northern sections. The extent to which the limited transport infrastructure linking Peterhead and Fraserburgh to Aberdeen is preventing unemployed people in those areas accessing employment in the Aberdeen area is a key consideration for this study.

Gross weekly pay for those resident in Aberdeen City and Aberdeenshire is much higher than the Scottish average, with gross pay by workplace higher in Aberdeen City than Aberdeenshire, reflecting the key role of the city as an employment centre. Due to the prevalence of primary sector employment, apprenticeships and skilled trades in industry in the northern sections of the Study Area, particularly the further north one goes from Aberdeen, there tends to a lower takeup of higher education places.

The Study Area suffers relatively little deprivation, apart from pockets in Peterhead, Fraserburgh, and Aberdeen City. While the overall proportion of the Study Area's datazones in the category of 20% most deprived has increased between 2004 and 2012, all of this increase has occurred in Aberdeen City, an area which is unlikely to be immediately addressed by improved transport infrastructure to the north.

Consideration of car ownership levels shows the Study Area has lower levels of ownership than the remainder of Aberdeen and the Shire, albeit higher than the Scottish average, but car ownership levels are particularly low in Peterhead and Fraserburgh. Census Travel to Work data shows that the use of public transport is relatively low across the Study Area, including within Peterhead and Fraserburgh, and the examination of the extent to which public transport options in these towns assists in improving accessibility to the employment centres in the south will be a key consideration of this study.

Employment growth in the Study Area between 2009 and 2013 has been positive, outstripping the national average, although this has very much been driven by the growth in the Rural South, immediately to the north of Aberdeen, however, employment growth in the Study Area did lag behind the wider performance of the Aberdeen City and Shire areas, which suggests the Study Area may not have fully shared in the growth experienced in the North-East in recent years.

Overall, it is clear that the Study Area and the wider Aberdeen and Aberdeenshire area generally have a higher concentration of employment in primary industries, construction, and manufacturing, driven by the oil & gas, fishing, and farming industries. This is an important point as these industries are relatively transport intensive, requiring goods to be moved from one place to the other, which contrasts with service and public sector jobs. These employment concentrations could help to build a case for transport investment in the Study Area.

Road

The A90(T) trunk road (managed by Transport Scotland and maintained by BEAR Scotland) provides the strategic road link north of Aberdeen to Ellon, Peterhead, and Fraserburgh, and forms the main route around Aberdeen and to the south, linking to the wider trunk road network and providing connections to Dundee, Edinburgh, Perth and Glasgow. To the north of Aberdeen, the A90(T) bypasses both Ellon and Peterhead before routeing into Fraserburgh. The route is a dual carriageway between Aberdeen and Balmedie, where it reverts to single carriageway between Balmedie and Tipperty, before a further dual carriageway section between Tipperty and Ellon and then single carriageway north of Ellon to Peterhead and Fraserburgh. The A90(T) does not however, provide the quickest route between Aberdeen and Fraserburgh, with the A952 (non-trunk) route just north of Ellon (leaving the A90(T) at the Toll of Birness and rejoining the A90(T) at Cortes junction south of Fraserburgh) providing the shorter route.

Further key road links in the Study Area include the A950 which connects Peterhead to Mintlaw, and the A975 coastal route which runs parallel to the A90(T), leaving the A90(T) south of Peterhead and passing through Cruden Bay and Newburgh before rejoining the A90(T) north of Balmedie. The flow on the A90(T) reduces as it routes away from Aberdeen splitting approximately 40%: 60% between the A952 and A90(T) at the Toll of Birness. Analysis of the flow on the A90(T), shows that, in accordance with *DMRB* 5.1 TA 46/97, the flow on the route between Ellon and the Toll of Birness is in excess of that recommended for a single carriageway.

Average speeds on the A90(T) and A952 are considerably lower than the posted speed limits, around 15mph lower. This low average speed can in part be attributed to the presence of HGVs on the route, with a speed limit restriction of 40mph on the signal carriageway sections, however the single carriageway nature of the route with a lack of overtaking opportunity means platooning is common-place and many vehicles are obligated to travel well below the signposted speed limit. In addition, average speeds on the A96(T) and A947 between Haudagain Roundabout and Newmachar are very low at certain times of day indicating the level of congestion in and around Dyce and potential difficulties accessing the area.

Future year predictions for traffic flow extracted from the Aberdeen Sub Area Model (ASAM) strategic traffic model for a baseline year of 2010 and forecast year of 2033 show traffic growth on the A90(T) by 2033 both northbound and southbound of around 50% between Ellon and Peterhead, and over 90% at Blackdog with the greatest increases in the southbound direction. In addition, high growth is predicted on the A952 both northbound and southbound of around 50% south of Mintlaw and around 40% north of Mintlaw, again with the greatest growth predicted in the southbound direction.

Future year predictions for journey times between 2010, 2023, and 2033 show journey times northbound from Aberdeen to Peterhead and Fraserburgh are forecast to fall in both the 2023 and 2033 forecast years in the AM and PM peak hours. In the southbound direction, journey times are forecast to fall in 2023, but increase slightly by 2033. It should be noted that the decrease in journey times in 2023 is all attributable to the southern section of the A90(T) where the Balmedie to Tipperty dualling and AWPR will have a significant impact. Consideration of journey times along the A90(T) and A952 north of Ellon show journey time increases on all other sections of route, and specifically between Ellon and the Toll of Birness.

Accident analysis shows that four sections of the strategic road network (A90(T) and A952) in the Study Area have a higher than expected proportion of fatal accidents when compared to roads of a similar type. In addition, many sections on these two routes have a higher than expected proportion of serious accidents.

Freight

North-East Scotland is a significant generator of road freight; only second to Strathclyde in Scotland in terms the volume of freight origins. The three harbours of Aberdeen, Peterhead, and Fraserburgh are key freight generators and attractors in the Study Area with the fishing and energy industries accounting for significant proportion of freight movements. Reflecting national trends, the transport network and absence of a rail line connecting to Fraserburgh and Peterhead, road haulage is the dominant freight mode in the area. The recent SustAccess Freight Study identified that inbound fish landed and processed at North-East ports (Peterhead, Fraserburgh, and Aberdeen) could be exported either from local ports on coasters/reefers, or containerised and transferred by rail freight to UK markets or export terminals in south of England. The opportunities for non-road based transfer of freight will be considered during option development and the potential utilisation of any new rail line in the Study Area by different industries will be examined.

Future year predictions for traffic flow extracted from ASAM show the volume of HGVs in the Study Area is expected to increase by 2023 and 2033 although the proportion of traffic attributable to HGVs is expected to remain relatively constant compared to 2010 levels.

Public Transport
In the Study Area, railway stations only exist at Aberdeen and Dyce. Bus is by far the most prevalent form of public transport available. Bus services in the corridor connecting Fraserburgh, Peterhead, Ellon, and Aberdeen all have a destination of Aberdeen City centre. Journey times by public transport in the Study Area are generally longer than the equivalent trip by private vehicle and many key destinations including the numerous industrial and business parks, and hospitals in and around the city require interchange as they cannot be accessed directly by public transport. In general, Peterhead and Fraserburgh could be considered less well connected by public transport than other locations in the north-east.

Future public transport travel times, predicted by ASAM show that travel times for 2023 are forecast to generally fall (compared to 2010 baseline year times) in both the morning and evening peak hours. In particular journey times to Aberdeen are forecast to fall significantly from Ellon, Peterhead and Fraserburgh. In 2033, public transport journey times are forecast to return to a similar level to the 2010 baseline suggesting road congestion may negate any infrastructure improvements, specifically the Balmedie to Tipperty dualling, made within the Study Area.

Two Park & Ride locations are available in the Study Area, at Ellon and the Bridge of Don. Ellon Park & Ride site patronage is growing year on year, and there are plans to further expand the site. Overall results for 2014 Bus Satisfaction Surveys showed that customers were highly or fairly satisfied with bus services in Aberdeenshire including their reliability, frequency, value for money, ease of finding best suited tickets, information on services, waiting facilities, safety, bus cleanliness and comfort on board, and ease of boarding and alighting.

Benchmarking against other Scottish areas as well as a number of local authority areas in England shows overall satisfaction in services in the North-East is similar to that elsewhere, but that users in the North-East are particularly unsatisfied with value for money. While there are no railway stations in the Study Area north of Dyce, Dyce railway station patronage is growing, with growth also at Aberdeen and Inverurie stations highlighting the general national upward trend in rail use.

Active Travel
The principal active travel route in the Study Area is the Formartine and Buchan Way (F&B), a 53 mile off-road route which uses the former Buchan Railway Line. The route extends from Dyce on the edge of Aberdeen in the south, to the village of Maud where it splits into two routes; eastwards to Peterhead and northwards to Fraserburgh. The route is well used by cyclists and walkers, with cycle flows higher in the spring and summer months.

The proportion of active travel journeys to work in Aberdeen City has increased by 7% since 2007/8 (*Source: Scottish Household Statistics*) with all of this growth being due to an increase in walking. In contrast, active travel journeys to work in Aberdeenshire have declined over the same period with the proportion of walking journeys falling by 0.4% and cycling journeys falling by 0.9%.

Pedestrian casualty rates, from 2009 – 2013 in the Study Area have not declined at the same rate as those for the North-East as a whole and cyclist casualty rates have actually increased since 2009 while those in Aberdeen, Aberdeenshire, and the North-East have declined. Developing potential active travel routes to Park & Ride sites could enhance opportunities for cycle and Park & Ride integration. Indeed, options to be developed in general should have the potential to integrate walking and cycling modes.

Environment
There are a number of environmental constraints that will be important considerations during option development and appraisal. Road traffic is the prominent noise source in the city centre (source: *Aberdeen Local Transport Strategy*) and locally influences the wider Study Area in areas near to major roads. Between 2005 and 2008 Aberdeenshire had consistently higher than average per capita CO_2 emissions than for the Scotland average, which have reduced in line with national trends between 2008 and 2012, but are still slightly higher than the national average.

Changes in the future climate in north-east Scotland are predicted to result in wetter winters, dryer summers, increased storm events, and a range of effects on habitats, species, land stability/erosion, and flooding.

A number of Air Quality Management Areas (AQMAs) have been designated in Aberdeen city centre due to the potential for exceedances of air quality objectives for nitrogen dioxide (NO_2) and particulate matter (PM_{10}) which is associated with road traffic emissions. There are no other AQMAs in the remainder of the Study Area and background levels of pollutants away from major roads are generally within objective levels and typical of rural areas.

The principal watercourses running though the Study Area are River Don, River Ythan, River Ugie, North Ugie Water, and South Ugie Water with the Ythan Estuary a designated conservation site (SAC and SPA) which is susceptible to diffuse pollution, particularly from agricultural activity.

There are large areas of prime quality agricultural land throughout the Study Area, extending to approximately 25% of the Study Area. Agriculture is the predominant land use and an important influence on the local landscape.

The Study Area contains a number of Special Protection Areas, Special Areas of Conservation, woodland coverage and other designated areas which may act as a constraint during option development. The area is characterised predominantly by agricultural heartland, coastal farmland, and coastal landscape character types; with two country parks, but no nationally or locally designated landscapes.

Over 100 scheduled monuments are located throughout the Study Area as well as a number of Conservation Areas associated with historic town and village cores. Cultural heritage assets are distributed throughout the Study Area and may present localised constraints to development as a result of the potential for direct effects or indirect impacts on their setting.

Future Transport Proposals

There are a number of committed future transport proposals, as well as further proposals at planning and feasibility stages (some of which are part of the Aberdeen City & Shire Strategic Development Plan Strategic Transport Fund), which will have an impact on traffic and transport in the Study Area in the future.

The Aberdeen Western Peripheral Route and Balmedie-Tipperty dualling will have by far the greatest impact on the transport network in the Study Area in the short term with significant benefits relating to reduced congestion, improved journey times and safety, enhanced accessibility, improved air quality, and the facilitation of further improvements. Other schemes likely to have a significant impact on those travelling to, from, and within the Study Area include the Third Don Crossing and Haudagain Roundabout improvements, which will ease congestion to and from Aberdeen, with schemes on South College Street and the Berryden Corridor further improving movement in the city. The Union Street pedestrianisation will impact on the movement of traffic in the city's core. In addition, the Dyce Drive link road will improve the accessibility of the airport and the industrial estates.

Further key infrastructure at the planning and feasibility stages, but as yet not committed, that needs to be taken cognisance of in this Study include those as part of the Strategic Transport Fund, developed to mitigate the impacts of the Strategic Development Plan.

In addition, planned walking and cycling strategic network enhancements, expansion of the Harbour and Airport, the A96(T) dualling and rapid transit will all need to be taken cognisance of when developing options for the Study. Options developed as part of this study will need to dove-tail with, support and enhance the wide range of committed and further future transport proposals.

Next Steps

The key findings from this report form part of the evidence base for the Study and, alongside the problems, opportunities, issues and constraints identified through the Study engagement programme form a robust picture of current and future transport problems and aspirations for the Study Area.

As the Study progresses, this complete understanding of current and future transport problems and opportunities will allow for the setting of Transport Planning Objectives for the Study that truly reflect both the issues and opportunities for the area as well as established policy directives. It will also ensure the development of a range of transport options for appraisal that provide solutions to alleviate the problems or address the opportunities identified.