Consultative Draft

Local Transport Strategy

(2015-2012)

Executive Summary

This Local Transport Strategy (LTS) has been developed to set out the policies and interventions adopted by Aberdeen City Council to guide the planning and improvement of the local transport network over the next five years.

The Strategy follows relevant national guidance and fits with emerging and established local and regional transport, land use and economic development policy, particularly the Nestrans Regional Transport Strategy refresh (2013), the Strategic Development Plan for Aberdeen City and Shire (2014) and the emerging Aberdeen Local Development Plan 2016.

In preparing this LTS we have undertaken a robust assessment process that has included a review of the previous LTS, an analysis of current transport trends and problems, a wide policy review and two rounds of consultation. As a result of this work, this LTS sets out a balanced approach that the City Council believes will not only tackle the various problems and issues identified, but also reflects a consensus on the way forward.

The previous LTS was adopted in 2008 and focussed on delivery of the Aberdeen Western Peripheral Route (AWPR) and the opportunities that this new road capacity would afford to reorganise and improve the use of the City's overall road network. Although the 2008 LTS has come to the end of its intended lifespan, as Aberdeen remains in a pre-AWPR state, much of the content is still relevant and will continue to be so going into the period 2015 to 2020.

In establishing the policies and interventions required, it has been necessary to take account of the progress that has been made in transport over the previous five years. Following publication of and consultation on a Main Issues Report in late 2013 / early 2014, which summarised changes in policy, likely future trends and reviewed the objectives and actions of the 2008 LTS, it was apparent that, whilst a great deal of progress had been made, the major infrastructure required to alter the transport landscape, so that it meets the vision, aims and aspirations for the City, have been delayed, largely due to external circumstances such as the legal challenge on the AWPR.

It has therefore been determined that a fundamental change in the overall policy approach is not required; instead a 'refresh', reflective of changes to national, regional and local policy and circumstances since 2008, is appropriate. Given that the AWPR will be complete by late 2017, this LTS refresh focuses its attention on the delivery of the range of actions required to achieve a series of newly formed outcomes for the City and ensure that complementary measures, which 'lock in' the benefits of the AWPR and other major infrastructure improvements, are maximised for everyone.

The vision for the LTS refresh has therefore been retained from the previous Strategy and is to develop **"A sustainable transport system that is fit for the 21st Century, accessible to all, supports a vibrant economy and minimises the impact on our environment".**

Taking into account the Scottish Government's strategic objectives (wealthier and fairer, safer and stronger, smarter, greener, healthier) and the City Council's 'smarter mobility' objectives, the five high-level aims have been updated to:

1. A transport system that enables the efficient movement of people and goods.
2. A safe and more secure transport system.
3. A cleaner, greener transport system.

4. An integrated, accessible and socially inclusive transport system.
5. A transport system that facilitates healthy and sustainable living.

In response to the Main Issues consultation a number of stakeholders commented that the Council did not appear committed to the vision, aims and objectives as little progress appeared to have been made, particularly in relation to public transport, active travel, safety and well-being. As a result, a series of outcomes have been set, with associated indicators and targets, to better enable progress to be measured.

By 2020 Aberdeen's transport system should have:

A. Increased modal share for public transport and active travel;
B. Reduced the need to travel and reducing dependence on the private car;
C. Improved journey time reliability for all modes;
D. Improved road safety within the City;
E. Improved air quality and the environment;
F. Improved accessibility to transport for all; and
G. Promoted a higher quality of life.

The Strategy incorporates five different strands. The Council will:

- **Support** partners in the development of the region's transport infrastructure and services. In particular, we will support improvements to the trunk road network (including implementation of the AWPR), the strategic rail network, shipping and ferry services, air services and measures to ensure the efficient movement of freight.
- **Maintain** its transportation assets, including roads and footways, street lighting and structures, and ensure that policies and procedures relating to flooding, winter maintenance and contingency planning lead to minimal disruption to the travelling public.
- **Manage** its transportation assets and services, including car parking, Community and Demand Responsive Transport, coaches, taxis and private hire cars and CCTV. We will continue to improve enforcement of traffic violations, seek measures to improve road safety for all users and to address the problems of poor air quality and noise, where these are attributable to transport.
- **Promote** the use of sustainable transport through land use planning policies; supporting and facilitating the expansion of Travel Plans, car sharing, Car Clubs and Low Emission Vehicles; improving and increasing information and awareness; and ensuring that the environmental impacts of transport are minimised.
- **Improve and add to** its transport infrastructure and services by implementing a range of projects and schemes to improve transport conditions and the travelling environment for all users, adopting a hierarchical approach, with the needs of pedestrians considered first, and private vehicular traffic last.

It should be stressed that the successful implementation of an integrated transport strategy will be dependant on commitment to and the delivery of, all aspects of the Strategy, as opposed to implementation of cherry-picked schemes. This can ensure that despite many of the policies and interventions being progressed by individual teams or organisations, all involved are working towards the delivery of a shared vision and achieving a suite of outcomes.

Based on the interventions contained in the strategy, an Implementation Plan has been developed to accompany the LTS. This will provide a framework for delivery, recognising that progress on individual elements of the Strategy will be dependant on funding and the outcomes of a number of processes and statutory requirements, including partnership working, consultation and technical assessments and appraisals.

The Council will produce Annual Progress Reports on the LTS, reporting on the delivery of the LTS objectives and actions, along with progress towards meeting the outcomes. This will ensure that the LTS remains in the public eye and improves accountability and delivery.

1. Introduction

Why a Local Transport Strategy?

This Local Transport Strategy (LTS) has been developed to set out the policies and actions adopted by Aberdeen City Council to guide the planning and improvement of the local transport network over the next five years (2015-2020).

In establishing the policies and interventions required, it is necessary to take account of what progress has been made in transport over the previous five years. A Main Issues Report was therefore produced in late 2013 which summarised changes in policy, likely future trends and reviewed the objectives and actions of the 2008 LTS. What is apparent from this report is that whilst a great deal of progress has been made, the major infrastructure required to alter the transport landscape, so that it meets the vision, aims and aspirations for the City, have been delayed. This is largely due to external circumstances such as the legal challenge on the Aberdeen Western Peripheral Route (AWPR).

The main focus of the 2008 LTS was on the delivery of the AWPR and the opportunities that this new road capacity would afford to reorganise and improve the use of the City's overall road network. Although the 2008 LTS has come to the end of its intended lifespan, as Aberdeen remains in a pre-AWPR state, much of the content of the document is still relevant and will continue to be so going into the period 2015 to 2020.

It has therefore been determined that a fundamental change in the overall policy approach is not required; instead a 'refresh', reflective of changes to national, regional and local policy, is appropriate. Given that the AWPR will be complete by late 2017, this LTS refresh therefore focuses its attention on the delivery of the range of actions required to achieve the City's newly formed outcomes and ensure that complementary measures, which 'lock in' the benefits of the AWPR and other major infrastructure improvements are maximised for everyone.

2. Context – Policy and Progress

Policy Context

Introduction

The development of the LTS requires careful consideration of strategic European, national and regional transport policies and priorities. It should also be aligned with the objectives of our Partners, Nestrans – as set out in the Regional Transport Strategy 2013/ 2035 – and the Scottish Government.

EU White Paper on Transport

Published in 2011, the EU White Paper, ***Roadmap to a single European transport area – towards a competitive and resource efficient transport system*** presents the European Commission's vision for the future of the EU transport system and sets the policy for the next decade. Four vision statements are identified:

- Growing transport and supporting mobility while reaching a 60% emissions reduction target;
- An efficient core network for multimodal intercity travel;
- A global level playing field for long-distance travel and inter-continental freight; and,
- Clean urban transport and commuting.

Carbon reduction is a key focus of the White Paper and will have implications for the LTS. Also relevant to Aberdeen are the policies set out for rail, air and sea transport by the EU which include completion of a single European sky, revision of airport slot regulation, innovation, technology and safety.

The National Transport Strategy

In December 2006 the then Scottish Executive published Scotland's first National Transport Strategy (NTS). It establishes three strategic outcomes to deliver to 2025:

- Improve journey times and connections between our cities and towns and our global markets to tackle congestion and provide access to key markets;
- Reduce emissions to tackle climate change and improve local air quality; and,
- Improve quality, accessibility and affordability of transport to give people the choice of public transport and real alternatives to the car.

The NTS outlined the intention that these outcomes are the Scottish Government's guiding principles when developing strategy and prioritising resources within Scotland.

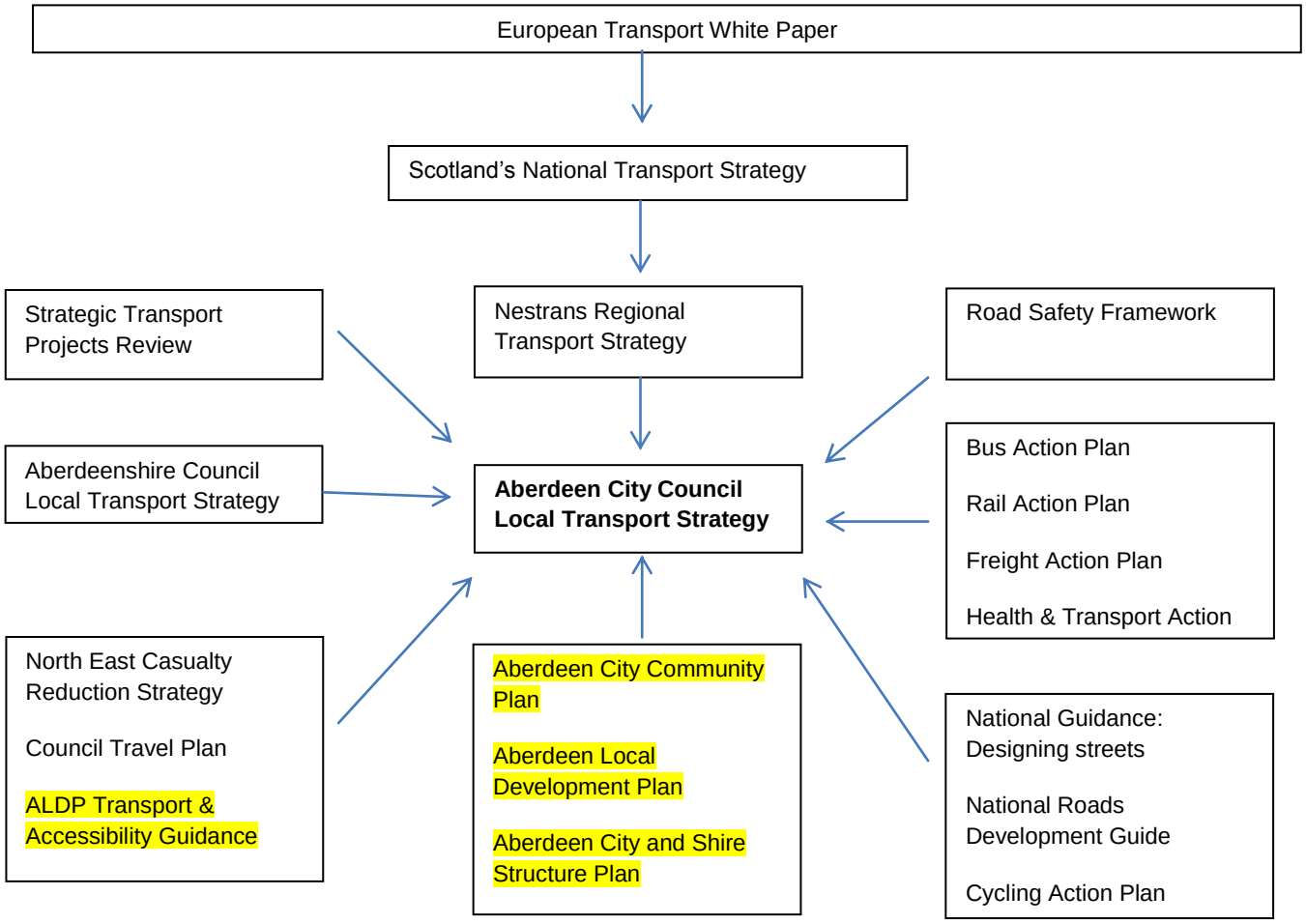
Regional Transport Strategy

The Nestrans Regional Transport Strategy (RTS) was published in 2008, and replaced by a Refresh approved by Scottish Ministers in January 2014. Taking the lead from the NTS the RTS has four strategic objectives:

- Economy: To enhance and exploit the north east's competitive economic advantages, and reduce the impacts of peripherality.
- Accessibility, Safety and Social Inclusion: To enhance choice, accessibility and safety of transport of all in the north east, particularly for disadvantaged and vulnerable members of society and those living in areas where transport options are limited.
- Environment: To conserve and enhance the north east's natural and built environment and heritage and reduce the effects of transport on climate, noise and air quality.
- Spatial Planning: To support transport integration and a strong, vibrant and dynamic city centre and town centres across the north east.

These objectives have provided the framework for the vision, aims and objectives developed for this LTS.

Figure X: Transport Strategy Hierarchy



This LTS has been developed to coordinate and deliver Aberdeen City's transport priorities; however, it must also take into account national and regional transport, planning and economic development policies and be fully integrated with the Council's wider objectives and outcomes. Over the past five years a number of policies and strategies have emerged for which are highlighted in Appendix A and in a diagram below.

Figure X: Wider Context - Attempt 1

	Economic	Transport	Planning	Other
European		European Transport White Paper		European Noise Directive, Directive on Ambient Air Quality and Cleaner Air for Europe
National	Infrastructure Investment Plan, Scottish Government Economic Strategy, Scotland's Cities: Delivering For Scotland	National Transport Strategy, Strategic Transport Projects Review, Scottish Planning Policy, Road Safety Framework, Cycling Action Plan for Scotland, National Walking Strategy, Designing Streets and National Roads Development Guidance, Road Safety Framework to 2020, Switched on Scotland: A Roadmap to Widespread Adoption of Plug-in Vehicles	National Planning Framework 3	Single Outcome Agreement, Climate Change Legislation, Preventing Overweight and Obesity: A Route Map Towards Healthy Weight
Regional	ACSEF Manifesto and Action Plan, Energetica	Regional Transport Strategy and daughter documents, North East Casualty Reduction Strategy	Strategic Development Plan	Health and Transport Action Plan
Local (not complete)	Strategic Infrastructure Plan	Aberdeenshire Local Transport Strategy, ACC Council Travel Plan, Core Paths Plan, Open Space Strategy, Cycle Strategy	Local Development Plan, City Centre Development Framework/ City Centre Masterplan, Aberdeenshire Local Development Plan, ACC Community Planning - Single Outcome Agreement	Local Climate Impacts Profile Report,

Progress Since the Last LTS

Introduction

Since 2008, a number of the specific schemes and projects committed to in the previous LTS have been implemented in Aberdeen, many in partnership with others including Nestrans. These include:

- Improvements to pedestrian and cycle infrastructure throughout the City, including incremental improvements to the Deeside Way and Formartine and Buchan Way long-distance routes and new facilities on key commuting corridors such as the A96;
- Development of Aberdeen's first cycle demonstration neighbourhood based around Greenbrae School in Bridge of Don;
- Formation of the Getabout partnership for co-ordinated smarter choices awareness-raising campaigns, events and promotions throughout the North East;
- Development of a new public transport (bus/rail) interchange at Union Square;
- Launch of a revised Quality Partnership for Public Transport and a Bus Punctuality Improvement Partnership;
- Increased bus priority measures in the City Centre;
- Improvements to information provided at bus stops throughout the City;
- Implementation of a shuttle bus between Dyce Station and the Airport;
- Decriminalisation of bus lane violations leading to improved enforcement;
- Development of a safe Night Time Transport Zone in the City Centre;
- Implementation of the Aberdeen Car Club;
- Development of a network of electric vehicle charging points across the City; and
- Revised parking policies, including new maximum standards included in the Aberdeen Local Development Plan 2012.

Analysis has also been undertaken of the progress made in delivering the actions and targets articulated in the 2008-2012 LTS. The full monitoring report comprises Appendix B to this revised LTS. The main points to be noted are, however, summarised below.

Progress Against Key Performance Indicators 2008-2012

The overarching aim of the LTS is to encourage modal shift from the private car to more sustainable and active modes of transport. The indicator below is therefore one of the key indicators in establishing the success, or otherwise, of meeting the vision and aims of the 2008-2012 LTS. With all the indicators a brief description, followed by some commentary on the Council's progress towards meeting each of these, is detailed below:

Usual method of travel to work of employed adults (16+), not working from home, resident in Aberdeen City.	
Target	By 2012, the percentage of employed adults living in Aberdeen, driving to work in either a car of a van is reduced by at least 5% compared to the average between 2001/2 and 2005/6.
Source	Scottish Household Survey (SHS)
Progress	Figures show that driving to work levels fell to 54.5% in 2012 from a 59% baseline, a reduction of 7.6% from the baseline (and 4.5 percentage points). This suggests the target has been achieved, and in fact exceeded for this time frame.

Accompanying the mode share indicator five other key performance indicators were identified as providing the most reliable measure of success or otherwise in meeting the vision and aims of the 2008-2012 LTS.

Pupils in full-time education at school – usual main method of travel to school	
Target	By 2012, it is hoped that the percentage of pupils driven to school is reduced by at least 10%, compared to 2007 baseline.
Source	Hands Up Scotland Survey
Progress	The percentage of children being driven to school decreased from 22% to 20% between 2007 and 2012, a reduction of 9% from the baseline (and 2 percentage points) therefore this target has just fallen short of being fully met, and is certainly moving in the right direction.

Traffic levels (mill veh km) on local and trunk roads in Aberdeen City Council area	
Target	Success will firstly be demonstrated by a reduction in rates of local traffic growth, and by a stabilisation of traffic levels on local roads.
Source	Scottish Transport Statistics
Progress	There was a steady decrease in vehicle kilometres on all roads between 2007 and 2012 from 1.39 billion vehicle kilometres to 1.30 billion – a fall of over 6%. However, vehicle kilometres have been increasing again on trunk roads since 2009, and saw an increase again in all roads between 2011 and 2012, but levels have yet to return to the highs of 2007. This target has therefore been partially met.

Monitoring of road traffic casualty statistics for the Aberdeen City Council area, specifically: killed/seriously injured (KSI), children KSI and slight casualty rate	
Target	The initial targets for this indicator were set in 2008 and have since been updated to reflect Scotland's Road Safety Framework for 2020 (June 2009). It sets targets for 2020, compared to the average for 2004-08 to achieve: • a 40% reduction in the number of people killed in road accidents; • a 55% reduction in the number seriously injured; • a 50% reduction in the number of children killed and 65% reduction in children seriously injured; and • a 10% reduction in the slight casualty rate, expressed as the number of people slightly injured per 100 million vehicle kilometres.
Source	Reported Road Casualties Scotland 2013
Progress	By 2013, compared with the average for 2004-08, Aberdeen saw: • a 33% reduction in road fatalities; • a 23% increase in the number of people seriously injured; • a x% increase in the number of children killed and x% in children seriously injured; and • a 24% reduction in the slight casualty rate per 100 million vehicle kilometres travelled. ACC is therefore currently meeting some of the casualty reduction targets, but not others.

Petrol and Diesel consumption of road vehicles driven within the boundaries of Aberdeen City and the associated amount of CO_2 production	
Target	There is a Scottish Government target to reduce emissions by 80% by 2050 which requires a 3% per annum reduction in carbon dioxide.
Source	Scottish Transport Statistics
Progress	The volume of fuel consumed in Aberdeen has fallen steadily since 2008. Average CO2 consumption has on average fallen by more than 3% per annum therefore this target is on course to be met.

Adults (16+) – percentage of adults who walked / cycled at least quarter of a mile, at least one day in the previous 7 days	
Target	By 2012, the percentage of adults walking for transport at least one day in the previous week is increased by at least 10% compared to the 2005/06 baseline. By 2012, the percentage of adults cycling for transport at least one day in the previous week is increased by at least 20% compared to the average between 1999 and 2006.
Source	Scottish Household Survey
Progress	The walking target has been met and in fact exceeded. Difficulties have been met gathering the data for cycling, although cycle to work levels suggest that this target has not been achieved.

Summary

It can be seen that there has been significant progress towards meeting the key targets of the previous LTS although further improvements can still be made in some areas. Traffic and accident reduction figures have not fallen to their desired levels so it is clear that further work needs to be done in these areas. Even where targets have been met (such as a reduction in driving and an increase in walking to work and a fall in consumption of petrol and diesel), efforts will have to continue to ensure that these figures remain at desirable levels or improve further in the future.

This LTS has therefore been developed in light of the progress made since 2008, and at the same time has also been based on an analysis of recent transport trends, summarised in the next section.

3. Strategy Development

Introduction

As this document is a refresh, this chapter describes the main steps taken to bring the 2008 LTS up to date to take account of any new issues.

Identification of Problems and Options

The 2008 LTS was developed in accordance with the Scottish Transport Appraisal Guidance (STAG) methodology. The first stage in the process was to understand the key problems, issues and opportunities that the LTS should address. A range of consultation exercises were undertaken to help identify real and perceived problems with transport in Aberdeen.

The 2008 LTS also considered five different strategic options to address current issues. These were reduced to three after implementation issues were identified with two of the options:

Option 1: Do Minimum - Encourage sustainable travel:
The base option, essentially “business as usual”. Past experience suggested this would not be successful in meeting the objectives set. Its main purpose was to act as a baseline for comparing the other options.

Option 2: Positive Encouragement - “Locking in” the benefits of AWPR and RTS schemes:
This option represented a concerted effort by the Council to promote the use of sustainable transport modes and utilise capacity released by the committed schemes to improve the effectiveness of sustainable travel modes.

Option 3: Pro-active Encouragement - Managing demand for transport and increased investment:
This option assumed more significant intervention by the Council by not only promoting the use of sustainable transport modes but also discouraging use of cars, particularly for journeys to work in the City Centre.

Following further consultation on, and appraisal of, these three options, a Preferred Strategy, consisting of a hybrid of all three options, was developed and this became the adopted Aberdeen Local Transport Strategy 2008-2012.

Development of the Refreshed Local Transport Strategy (2015-2020)

While many projects have been delivered over the past five years, as Chapter 2 has highlighted, when the Strategy reached the end of its anticipated lifespan in 2012 there was a sense that, as a result of delays to the implementation of the AWPR and associated projects, the bulk of the significant measures to tackle the problems facing the City that had been identified in the LTS had yet to be delivered. It was felt therefore that the majority of problems identified in 2007/08 remained and therefore the vision and aims of the Strategy were still relevant, although some of the objectives developed in 2008 could be better articulated.

As the first stage in the development of the refreshed LTS therefore, an initial public and stakeholder consultation exercise was undertaken. Respondents were invited to take part in an online questionnaire, which asked:

- If they felt that the vision and aims of the original LTS were still relevant going into the future;
- If they would prefer to see general objectives replaced with specific outcomes;
- To identify any main issues that had come to the fore since the adoption of the previous LTS that should be reflected in the updated document; and
- If they felt there were any areas of the LTS that required strengthening.

The responses received reflected the opinions of a broad range of stakeholders, including business representatives, Community Councils, bus operators and specific user groups. Officers also met with groups representing the views of vulnerable members of society, such as the elderly and disabled, for more specific views.

These engagement exercises:

- Confirmed that there was broad agreement that the vision and aims of the refreshed LTS should remain the same;
- Confirmed that respondents wished to see outcomes articulated in the refreshed LTS;
- Confirmed that issues and concerns remained broadly similar to those expressed in 2007/8 and that there was concern among stakeholders at the rate of progress since then;
- Informed the content of the revised document by articulating new problems that should be given attention in the LTS, including
    - The rate of development in the City compared to the scale of infrastructure improvements;
    - Accessibility of the City Centre, in particular to increase footfall on Union Street for economic vitality;
    - Rising levels of obesity; and
    - An ageing population, many of whom are prevented from using mainstream transport;
- Broadened the range of views and policy and legislative changes that have been incorporated into the revised LTS.

Keeping in mind progress made, as identified in appendix B and the previous chapter the Problems have been updated to:

<u>Economy</u>

- Congestion at key locations and times in the City
- Lack of non-car options for circumferential and non-radial journeys
- Poorly maintained roads (and pavements)
- High cost of bus fares
- Limited rail travel opportunities
- Choice and journey times by public transport to the rest of Scotland and beyond
- Development of infrastructure keeping pace with planning developments

Safety and Security

- Road accident levels could be reduced further
- Perception of personal safety and security has deteriorated, particularly after dark

Environmental

- Poor air quality particularly in the City Centre and on strategic routes
- Carbon emissions from congestion and traffic growth
- Noise from aircraft and traffic is problematic in some areas

Accessibility

- High fares on public transport
- Barriers to the use of public transport (comfort, direct journeys, travel times)
- Poor accessibility for socially excluded groups due to lack of non-radial public transport networks
- Single operator ticketing for all public transport users
- Ageing population
- Difficulty accessing the City Centre

Integration

- Dispersed development patterns create car dependency
- The dispersal of population from the City to the county increases car use
- Barriers to interchange for passengers and freight
- Barriers to walking and cycling
- Rising levels of obesity

Feedback obtained from the initial engagement exercise has therefore shaped the development of this draft refreshed LTS.

4. Vision, Aims and Outcomes

Introduction

As was the case for the 2008 LTS, the refresh has taken its lead from the NTS and Regional Transport Strategy (RTS). Although it has been determined that a fundamental change in the overall policy approach is not required, a review of the vision, aims and objectives to take account of new policies has been undertaken. The consequence is that the vision has been maintained and the aims streamlined and complemented by high level outcomes with individual objectives now related to specific modes.

The Vision

The vision for the Aberdeen City LTS is to develop 'A sustainable transport system that is fit for the 21st Century, accessible to all, supports a vibrant economy and minimises the impact on our environment'.

Aims

As part of the refresh we asked stakeholders if our aims are still relevant; the consensus was that they are. Taking into account the Scottish Government's strategic objectives (wealthier and fairer, safer and stronger, smarter, greener, healthier), the City Council's 'smarter mobility' objectives and the 2008 LTS, the aims have been updated to:

1. A transport system that enables the efficient movement of people and goods
2. A safe and more secure transport system
3. A cleaner, greener transport system
4. An integrated, accessible and socially inclusive transport system
5. A transport system that facilitates healthy and sustainable living

Outcomes

In response to the Main Issues consultation a number of stakeholders commented that the Council did not appear committed to the vision, aims and objectives as little progress appeared to have been made, particularly in relation to public transport, active travel, safety and well-being. As part of the LTS refresh we asked stakeholders whether clear outcomes for the City, i.e. the changes and benefits that we should be aiming towards, rather than objectives, should be included. The majority of stakeholders responded positively as long as the outcomes were SMART (Specific, Measureable, Achievable, Realistic and Timebound), and there was a clear link to the existing objectives. The following outcomes have therefore been produced and associated indicators are detailed in Appendix E.

By 2020 Aberdeen's transport system should have:

H. Increased modal share for public transport and active travel;
A. Reduced the need to travel and reducing dependence on the private car;
B. Improved journey time reliability for all modes;
C. Improved road safety within the City;
D. Improved air quality and the environment;
E. Improved accessibility to transport for all; and

F. Promoted a higher quality of life.

Appendix X contains a table demonstrating to what extent the outcomes, 2008 objectives and 2013 objectives for individual modes still meet the overall aims. Objectives are now presented alongside the mode that they represent.

Acknowledge new monitoring regime here.

A key finding of the review concerned difficulties associated with the monitoring process. It was found that many of the targets focused on outcomes with limited opportunities to record or monitor the outputs of actions. Without this stage in the monitoring process, it has been difficult to determine the success of all of our actions.

5. Outline Strategy

Introduction

The underlying principle behind the LTS 2008 was that the AWPR provided additional road capacity and therefore opened up opportunities to free up capacity on the City's road network, thereby reducing congestion, pollution and improving journey times. The Strategy also acknowledged that without further intervention the benefits of the new road would quickly erode due to additional traffic over time.

The LTS 2008 proposed to preserve and 'lock in' the reduced congestion and pollution and improved journey time benefits of the new road by giving over space to public and active transport modes thereby providing adequate infrastructure to allow these modes to become viable, safe, efficient and provide a comparable and competitive journey in both time and convenience to the private car for most journeys.

Key conclusions that were drawn from that original consultation process were that:

- there was a general acceptance that the city should aim to be less car dependent and move to a position where we make more use of sustainable forms of transport or, indeed, travel less;
- there was a desire that transport infrastructure and services should be well maintained and safe to use;
- the city should be planned so that all our citizens have easy access to jobs and services; and
- ease of access to key commercial and industrial areas needs to be improved.

The Refresh

For the purposes of the Refresh this position has not changed, and has in fact been strengthened by recent updates to national and regional policy and strategy and the early engagement with stakeholders and the public to inform this refresh. The broad approach therefore continues to support national and regional initiatives that flow from the National and Regional Transport Strategies and the policies and actions that are proposed. The five different strands that this incorporates remain the same i.e. the Council will:

- **Support** partners in the development of the region's transport infrastructure and services;
- **Maintain** its transportation assets;
- **Manage** its transportation assets and services;
- **Promote** the use of sustainable transport; and
- **Improve and add to** its transport infrastructure and services.

It should be stressed that the successful implementation of an integrated transport strategy will be dependent on commitment to and the delivery of, all aspects of the Strategy, in an integrated fashion to a long-term framework. This can ensure that despite many of the policies and interventions being progressed collaboratively, all involved are working towards the delivery of a shared vision and achieving a suite of outcomes. This approach enables

actions to be taken forward in a more integrated manner and, for example, that the benefits of new infrastructure is more readily identified and accommodated.

Figure X (to be drawn) illustrates the relationship between the categories of intervention and the types of intervention within each category. Structuring the Strategy in this way means that actions are not dealt with in isolation. Instead, the relative needs of each mode are considered under each of the Council's areas of responsibility.

Support:

- Strategic Rail Network
- Shipping and Ferry Services
- Air Services
- Trunk Road Network
- Aberdeen Western Peripheral Route
- Freight

Maintenance:

- Roads Carriageway and Footway Maintenance
- Winter Maintenance
- Contingency Planning and Utilities
- Lighting
- Structures
- Flooding

Management:

- Car Parking
- Community and Demand Responsive Transport
- Taxis and Private Hire Cars
- Enforcement
- Traffic Management and Road Safety
- Coaches
- CCTV
- Air Quality
- Noise

Sustainable Development and Travel:

- Land Use Planning
- Travel Plans
- Car Sharing
- Car Clubs
- Ultra Low Emission Vehicles (ULEVs)
- Travel Information and Awareness
- School Travel and Young People
- Climate Change Adaptation and Mitigation
- Biodiversity and the Green Space Network

Improvements and Additions

- Walking

- Cycling
- Bus
- Rapid Transit
- Powered Two Wheelers
- Road Improvements
- ITS
- Public Realm

Governance and Funding referenced here
Meeting our outcomes and Delivery Plan referenced here

6. Actions

6.1 Support

Introduction

This section of the LTS considers those transport schemes which are important features of the Strategy but which are being promoted and developed by other bodies, either because the elements being considered are not the direct responsibility of Aberdeen City Council or because they are nationally or regionally important schemes being promoted through the National or Regional Transport Strategies. For example:

- The maintenance and management of trunk roads is the responsibility of Transport Scotland;
- Transport Scotland is responsible for working with Network Rail and rail operators to oversee the safe and efficient running of the rail network and for specifying the range and frequency of services offered; and,
- The development of air and ferry services rests principally with commercial operators and the Scottish Government respectively.

For regionally important schemes, the Council's key partners are Nestrans, the Regional Transport Partnership, and Aberdeenshire Council. One of the main benefits of having a Regional Transport Partnership is that it can better manage and co-ordinate transport improvements which cross Local Authority boundaries, given its strategic focus and broader geographical responsibility.

Strategic Rail Network

Objective
To work with partners to increase opportunities for rail travel to, from and within Aberdeen.

Fast, frequent and reliable rail services are essential to the delivery of an integrated, sustainable transport system for the region.

Rail patronage to, from and within Aberdeen has increased steadily since the LTS was adopted in 2008, thanks in part to the re-opening of Laurencekirk Station in 2009 and the securing of additional services to and from Stonehaven and Portlethen. Through services from the Central Belt to Dyce and Inverurie via Aberdeen have also proven successful in attracting passengers. Additional carriages have been introduced on some services but overcrowding remains a problem at peak times.

Significant station improvements have taken place in Aberdeen. The Union Square transport interchange opened in 2009 and an overbridge and lifts have been installed at Dyce Station to enhance facilities for passengers and to comply with the Equality Act 2010. A new bus service, Service 80, linking Dyce Station to Kirkhill Industrial Estate and Aberdeen International Airport, was launched by Nestrans in 2008 and is now operated on a fully commercial basis. An improved turning circle for buses at Dyce Station, also using funding

from Nestrans, is proposed and an Aberdeen to Inverness timetabling study will follow the improvements (below) announced in summer 2014.

Many of these local improvements spring from the development of the Nestrans Rail Action Plan (2010) which seeks to prioritise and thereafter implement rail improvements in the North East. Their actions include: reduced rail journey times to Edinburgh, Glasgow (and further south) and Inverness; improving train capacity, comfort and reliability; and, supporting High Speed Rail connections to London.

At a national level, the Scottish Government's 2011 Infrastructure Investment Plan and Strategic Transport Projects Review reaffirm the need to improve rail infrastructure between Aberdeen and Inverness and between Aberdeen and the Central Belt, including a commitment to upgrading the Aberdeen to Inverness line (allowing for faster and more frequent services) and reducing journey times between Aberdeen and the Central Belt by 20 minutes.

In March 2014, the Scottish Government announced a £170 million package of improvements for the Aberdeen to Inverness rail corridor to be delivered between 2014 and 2019, with the aim of improving commuter opportunities and capacity into both Aberdeen and Inverness. A further phase will seek to make passenger journeys quicker, more frequent and more comfortable. Improvements include redoubling of the track between Aberdeen and Inverurie and local improvements around Aberdeenshire and Moray, including infrastructure to support the reopening of Kintore Station. Future phases of the scheme will support an hourly service between Aberdeen and Inverness with the average journey set to reduce to two hours.

In November 2014, new operators were announced for the franchises serving Aberdeen. Abellio will operate ScotRail services from April 2015 and InterCity, a consortium operated by Stagecoach/Virgin will operate the East Coast main Line services to London. Both new operators have indicated potential upgrades and improvements to services and capacity under the new franchise arrangements.

Actions:

- Continue to promote rail travel to, from and within Aberdeen as part of a sustainable and integrated transport network.
- Continue to improve access to both Aberdeen and Dyce Railway Stations, particularly by foot, bicycle, bus and taxi.
- Support Nestrans to implement key priorities emerging from the RTS and Rail Action Plan including lobbying the Scottish Government for further improvements
- Support the Scottish Government in improvements to the Aberdeen to Inverness rail corridor and press for journey time improvements between Aberdeen and the Central Belt.

Shipping and Ferry Services

Objective

To work with partners to ensure that Aberdeen Harbour remains a world-class port and the main port of call in Scotland for the Northern Isles ferry services.

Aberdeen Harbour is one of the UK's busiest ports and represents a vital part of Scotland's transport infrastructure. It plays a key role in Europe's energy sector, supports life-line ferry services to the Northern Isles and has commercial trading links to 39 countries. With over 5 million tonnes of cargo passing over the quayside annually, with a value of more than £1.5 billion, and the port managing over 28 million vessel tonnes, the port has witnessed record levels of activity in recent years and is key to sustaining the commercial growth of the region. The Nestrans RTS acknowledges the national importance of the Harbour and the measures required to support its continuing function. These include: joint working through the North East Freight Forum; improving access and facilities at ports and interchange with passenger ferries; continue to enhance freight and passenger facilities at north east ports; and continue dialogue with the Scottish Government and Northern Isles ferry service operator to ensure continuing services from Aberdeen.

Recent development of the Harbour has seen a new rail freight terminal at Waterloo Quay with direct access to the deep water quayside, the first phase of the Torry Quay redevelopment and widening of the navigation channel. In 2012 a feasibility study investigated the potential expansion of the harbour into Nigg Bay where additional deep-water facilities could be developed. The Scottish Government has recognised this as National Development within the third National Planning Framework (NPF3). Ensuring appropriate access to this site will be key to Aberdeen Harbour Board being able to develop the site adequately.

The Council also recognises the valuable role of the ferry service between Aberdeen and the Orkney and Shetland Islands, with Aberdeen enjoying important historical, social, cultural and economic links to the Northern Isles. The growth in passenger numbers in recent years has had benefits for the City in terms of the development of tourism and City Centre trade and improved interchange between Aberdeen ferry terminal, the city centre and the bus and rail stations is essential. Maintaining the ferry terminal in the city centre will be extremely important in ensuring that individuals can continue to access Aberdeen without a vehicle. Given the coastal route has both strategic walking and cycling routes improvements to the road network to access Nigg will have to consider all modes.

Actions:

- Support Aberdeen Harbour Board in the development of Aberdeen Harbour and Nigg Bay, including identification of infrastructure required to ensure the Nigg site is viable.
- Support measures to improve accessibility to Aberdeen Harbour for passengers and freight.
- Support Nestrans to deliver their proposals within the RTS as part of their Connections by sea proposals for action.

Air Services

Objective

To support the future growth and improvement of Aberdeen International Airport in order to support the economic strength of the region and ensure continued connectivity to key businesses and leisure destinations.

Despite the economic recession, Aberdeen International Airport has returned to growth in recent years. In 2012, the Airport served 50 destinations and handled over 3.3 million passengers, an increase of 8% compared with the previous year and just short of the highest recorded figure of 3.4 million in 2007. The Airport is also the world's busiest heliport, handling over 35,000 helicopter movements every year, the majority serving the off-shore oil and gas industry. It therefore plays a vital role in the economic development of the region and the Council supports a number of initiatives that are being delivered to facilitate continued growth and service improvement.

A 124m runway extension was completed in 2011 and planning permission exists for a further extension. This could enable the development of other long haul flights and will improve accessibility and reduce journey times to key locations within the energy sector. Runway extensions also have environmental benefits, enabling airlines to use more fuel-efficient aircraft to operate direct flights from Aberdeen without payload restrictions or en-route stops. The Nestrans RTS commits to supporting: the runway extension to facilitate a wider range of destinations and more efficient, modern aircraft; expansion of direct destinations from Aberdeen and frequency of popular services; and, ensuring protection of slots for Aberdeen services at key hubs such as London Heathrow.

Surface access to the Airport has also improved significantly for all modes of transport. The Service 80 bus, referred to under the 'Strategic Rail Network' section, serves Dyce Station to the Airport, and another high-frequency service, the Jet 727, now links Union Square and the City Centre with the Airport. A bus/cycle/taxi lane has been implemented on Argyll Road, further walking and cycling infrastructure on Dyce Drive, improvements have been made to taxi operations and a new multi-storey car park with dedicated bicycle and motorcycle storage facilities have been constructed.

Actions:

- Support BAA in the future growth and extension of Aberdeen International Airport.
- Support Nestrans to deliver their aspirations as part of the RTS.
- Continue to improve surface access to the Airport by all modes of transport
- Support Aberdeen International Airport in delivering an up to date Surface Access Strategy to ensure commitment to improving modal choice to/from the airport.

Freight

Objectives

To work with partners to ensure the efficient movement of freight to, from and within the North East of Scotland.

The efficient movement of freight to, from and within the region by all modes of transport is key to economic growth in the North East with a number of initiatives being progressed to improve conditions for freight movements.

The Nestrans Freight Action Plan was published in 2009 and refreshed during 2013. One of the main outputs of this was the establishment of a permanent North East Freight Forum.

Meanwhile, new rail freight terminals have been developed at Raiths Farm, Craiginches and Waterloo Quay, while new opportunities will be afforded by the extension of Aberdeen Harbour to extend links with sea, rail and road. The RTS also commits to investigation of potential measures to provide more reliable journey times for HGVs and identify a trial route for implementation of priority measures.

Given that the majority of freight movement in the North East take place within the North East, for many trips there is often no alternative to road travel. Between 2006 and 2010, for example, the average amount of freight carried by HGVs from Grampian to elsewhere in the UK was over 19 million tonnes and more than 80% of this had a Grampian destination. For this reason, efficient management and maintenance of Aberdeen's road network is vital. The AWPR will also assist with the movement of freight by providing a guaranteed fast-link for freight and goods from all over the North East to markets in the south.

The lack of suitable lorry parking facilities in Aberdeen has also been raised as an issue in recent years. The Council therefore welcomes the inclusion of lorry parking provision in plans for the A90 South Park and Choose site, currently being developed by Aberdeenshire Council.

Actions:

- Continue to work with Nestrans and partners in the Freight Forum to implement elements of the Freight Action Plan.
- Continue to encourage the transfer of freight from road to more sustainable modes such as rail and sea.

Trunk Road Network

Objective
Support improvements to the trunk road network for the benefit of passengers and freight travelling to, from and within Aberdeen.

Trunk roads within Aberdeen currently comprise the A90 and the A96. The A90 south provides a continuous dual carriageway from Aberdeen to the Central Belt, while the A90 north is the main link into Aberdeen for many settlements in the North East corner of Scotland, including Ellon, Peterhead and Fraserburgh. The A96 connects Aberdeen to Inverness and is the main link to the City from the many towns and villages north-west of Aberdeen.

As part of the AWPR project, the A90 between Balmedie and Tipperty will become dual carriageway. The Scottish Government has also committed to the full dualling of the A96 by 2030 as part of the Infrastructure Investment Plan. The Council welcomes these decisions, recognising the benefits these projects will have for passengers and freight travelling to and from the City.

Significant bottlenecks exist on the trunk road network, particularly around the Bridge of Dee (A90) and Haudagain Roundabout (A90/A96) and the Council is therefore working with Transport Scotland and Nestrans to implement measures to tackle these problems. A

Scottish Transport Appraisal Guidance (STAG) assessment is underway to identify options for the Bridge of Dee, while the Scottish Government is committed to improvements at the Haudagain Roundabout following implementation of the AWPR in 2017.

When the AWPR comes on line, the A90 and A96 through Aberdeen will be 'detrunked' with most strategic traffic expected to stay on the AWPR. The resulting capacity created on what will become local roads requires a rethink of the use of these roads and their primary function. A future network roads hierarchy is currently being developed to enable a reclassification of the strategic City road network towards the radial corridors with priority for public transport. Given the key purpose of this LTS is to reorganise and improve the use of the City's network for sustainable transport, so that the benefits of the AWPR are 'locked-in' for everyone, a number of interventions will be initiated over the lifespan of this LTS which are detailed in the next section.

The maintenance of these strategic routes is also vital to the economic development of the City. Sections of the A90 and A96 will be de-trunked following the completion of the AWPR. It will therefore be important that these roads are in efficient order when passed over to the Council.

In terms of any future improvements to the road network, the Council supports the principle that priority investment should be determined to reflect all day demand relative to capacity, impacting on strategic movements and businesses, rather than where peak-hour demands cause short-term problems for commuters.

Actions:

- Support the dualling of the A90 Balmedie-Tipperty and the A96 and continue to work with the Scottish Government, Nestrans and Aberdeenshire Council to ensure the completion of these projects.
- Continue to work with partners to identify the optimum solution for congestion and capacity problems at the Bridge of Dee.
- Support improvements to the Haudagain Roundabout following construction of the AWPR.
- Continue to press the Scottish Government to ensure that roads that are de-trunked in 2017 are fit for purpose when passed to the Council.
- Work with Transport Scotland on delivering improvements to the walking and cycling network around trunk roads
- Develop a Roads Hierarchy for the City – diagram from RTS

Aberdeen Western Peripheral Route

Objective

To support the implementation of the Aberdeen Western Peripheral Route (AWPR) and to fully realise the benefits the new road will bring in terms of improving conditions in the City for users of sustainable modes of transport.

The AWPR will provide a new strategic route to improve travel in and around Aberdeen and the North East of Scotland. Backed by the Scottish Government, the road is being developed by Transport Scotland in partnership with Aberdeen City and Aberdeenshire Councils.

The 30km route, travelling from the A90 near Blackdog in the north of the City to the A90 in the Charleston area, south of Aberdeen, is scheduled to be completed in Winter 2017. The road, designed as an alternative route from north to south, bypassing the City, will be a dual carriageway with grade separated (flyover or underpass) junctions. Flyovers or underpasses will also be provided for pedestrians and cyclists crossing the AWPR, while local junctions will be bridged over or under the route.

The route, which also includes a fastlink to Stonehaven and links to the Balmedie-Tipperty dualling, will deliver a number of significant benefits for the region: reduced congestion; improved journey times; improved safety; enhanced accessibility with improved links to key locations, such as Aberdeen International Airport, Park and Choose sites and industrial estates; improved air quality within the City Centre; and economic growth.

The Council is fully committed to the delivery of the AWPR, recognising that this will be key to delivering many of the objectives of this LTS. It will be vitally important that the benefits that the new road brings are fully realised and the opportunity is taken to 'lock-in' improvements to congestion and journey times to ensure that these are not eroded through additional traffic growth. The AWPR also allows the Council an unparalleled opportunity to revise the operation of the transport network in the City, with options to utilise the freed-up capacity anticipated on many routes to prioritise the movement of sustainable modes of transport.

The following list of schemes represents the key actions for implementation on key corridors. A number of schemes have now been completed and are no longer referenced. Many others are in the developmental phase and can be implemented prior to the opening of the AWPR, others however, will require to be 'shovel ready' for when the AWPR opens:

<u>Stonehaven Road – Bridge of Dee (A90)</u>

- Cycle/ pedestrian/equestrian route on the east side of the A90. The route will integrate with existing facilities in Aberdeen and Stonehaven
- Bus or bus/ HOV lane extending from the Charleston Interchange to the Bridge of Dee, including priority at junctions

<u>Anderson Drive, Bridge of Dee – Haudagain (A90)</u>

- Circumferential bus route travelling the length of Anderson Drive, with priority at junctions and stops/ interchange facilities along the route
- Improve and increase the number of pedestrian crossings. Introduce pedestrian phases on existing signalised junctions where they do not exist
- Parallel cycle lanes and junction improvements for cyclists
- All roundabouts converted to signals or signalised roundabouts
- Change signal timings to give greater east-west priority
- Upgrade junctions to accommodate large vehicles and to improve their manoeuvrability

<u>Peterculter – Westhill (B979)</u>

- Cycling and walking improvements

- Cycle/ pedestrian/ equestrian route along roadway, integrating with existing facilities at each end
- Pedestrian crossing at A93/B979 junction

Wellington Road, Queen Elizabeth II Bridge – Charleston (A956)
- Improve key junctions along the corridor to allow easier manoeuvring of HGVs

Peterculter – Holburn Junction (A93)
- Bus or bus/ HOV lane with junction priority, operational for eastbound vehicles only
- New cycle/ pedestrian/equestrian lane

Mason Lodge – Hutcheon Street (A944)
- Pedestrian/cycle route from B9119 junction to Berryden Road
- Alter signalised roundabout timings
- Extension of bus lane or conversion of existing bus lane to bus/ HOV lane from bus gate on Lang Stracht to Berryden Road, with junction priority for bus and HOV
- Signalise roundabouts to give greater east-west priority

Switchback – Holburn Street (B9119)
- Extension of existing bus lane or conversion of existing eastbound bus lane to bus/HOV lane to be continuous from A944/ B9119 Switchback junction to Anderson Drive junction, with priority for bus and HOV
- Junction/ signal changes to allow greater east-west priority

Kinellar Roundabout – St Machar Drive (A96)
- Extension of the dual use pedestrian/cycle lane from airport to Kirkhill Industrial Estate
- Extension of existing bus lane or conversion of existing bus lane into bus/ HOV lane from proposed Park and Ride to Haudagain junction with junction priority for bus and HOV
- New bus/ HOV lane from the airport to the A96
- Improvement of A96/B979 junction at Tyrebagger

Victoria Road / Stoneywood Road, AWPR – Bucksburn (A947)
- Cycle/ pedestrian link between Bucksburn and Formartine and Buchan Way. Links to Riverview Drive cycleway and Dyce Train Station
- Advisory cycleway on Riverview Drive upgraded to mandatory
- Bus or bus/ HOV lane on approach to A947/A96 junction. Investigate extending this along entire A947 and, if not possible, localised and junction improvements to give priority to bus and HOV

The Parkway (A90)
- Remote cycle and pedestrian link along the verge of the Parkway
- Toucan crossings at Woodside Road and between Scotstown Road and Ellon Road
- Improve underpass crossing
- Improve Parkway/Woodside Road junctions to facilitate large vehicle manoeuvres and right turning vehicles in a safer manner

Ellon Road, Balmedie – St. Machar Drive
- Pedestrian crossings at Ellon Road/Parkway roundabout

- Convert and extend intermittent bus lane to continuous bus/ HOV lane between St Machar roundabout and as yet undetermined point north of Balmedie

Every scheme promoted on the local network will therefore, at a minimum, ensure that it causes no detriment to pedestrians, cyclists and public transport. In many cases this will require complete reorganisation and reprioritisation of the network to ensure that the safety of non-motorised users and the connectivity of communities is prioritised ahead of traffic flow.

Actions:

- Continue to work with Transport Scotland, Nestrans and Aberdeenshire Council to deliver the AWPR on time and on budget.
- Develop the remaining Locking In The Benefits schemes prior to the AWPR opening in Winter 2017
- Continue to identify measures to 'lock in' the benefits of the AWPR, with a particular emphasis on revising the transport network within the City to improve conditions for, and to prioritise and promote, sustainable modes of transport.

Summary

This section has outlined the Council's approach to supporting our partners in helping to develop the region's transport infrastructure, through partnership working to implement various infrastructure and service improvement projects; lobbying for enhancements to current services; and supporting Regional Action Plans.

6.2 Maintenance

Introduction

Aberdeen City Council is responsible for the maintenance of the local transport network, comprising roads, footpaths and cycleways, as well as verges. This includes signs, road markings, traffic signals, bus infrastructure, street lighting, structural maintenance, winter maintenance and flood/ coastal defence works. The effective maintenance of the combined network is crucial to allow the efficient movement of people and goods throughout the City, ensuring that our transport infrastructure and services are safe and fit for purpose.

Levels of investment in maintenance must keep pace with the level of infrastructure being installed, and also address historic under-investment. Potential risks of a failure to effectively maintain our transport network can result in increased volumes of public liability claims against the Council. Health and Safety is of paramount importance to Aberdeen City Council, a point reflected by increased emergency repairs and resultant strain on existing budgets. A Road Asset Management Plan has been developed and this describes the approach Aberdeen City Council will use in managing its infrastructure network. The Plan values road assets at £1.4 billion and an investment of approximately £200 million to achieve an ideal road condition. Through this LTS, efforts will therefore be taken to sustain if not increase levels of investment in network maintenance against a projected backdrop of reducing funding in the public sector over the next five years.

Road Carriageway and Footway Maintenance

Objective
To improve the condition of the road, footway and cycle networks.

There are approximately 500 miles of roads in the Aberdeen City Council area, with a further 1,000 miles of footways which are suffering from historic levels of underinvestment. In addition, the severe the winters experienced between 2008 and 2011 were extremely damaging to the condition of roads. In order to address this backlog, considerable funds are required to comply with recommended road maintenance performance indicators. While appreciating that this is a national problem, it remains the case that action is required in Aberdeen.

While increased finance is critical, other initiatives have been developed to make better use of available resources. For example, the Council adopted its first Roads Asset Management Plan in September 2012 to make the management and maintenance of the Council's road network more efficient, effective and transparent.

Actions:

- Seek increased investment in roads maintenance and lobby the Scottish Government for funding to support the Council's efforts to address the historic backlog in Aberdeen.
- Seek to increase investment in the maintenance of footways and cycleways across the City.

- Continue to undertake maintenance works in accordance with appropriate legalisation and guidance.
- Prevent roads maintenance schemes occurring simultaneously when these are likely, in combination, to have a significant detrimental effect upon the travelling public.
- Seek to ensure that the development of new infrastructure, such as cycleways, is matched by specific funding allocations for maintenance purposes.
- Continue to update the Roads Asset Management Plan (RAMP)
- Seek to reduce the cost of public liability claims.
- Prioritise and undertake repairs to reported road defects.
- Work to encourage other Roads Authorities to maintain a high standard of road and footway maintenance for the travelling public.

Lighting

Objective
To ensure that all street lighting columns in Aberdeen are fit for purpose, safe and sustainable.

Aberdeen City Council currently maintains approximately 32,000 street lights in Aberdeen and 4,000 lit traffic signs and bollards. These are on publicly maintained roads and footpaths throughout the city.

Columns have been a major issue in recent years with some road lighting columns now over 30 years old, despite their average design life being 25 years. In addition, defective construction methods are becoming apparent through structural failures and this is necessitating revision of column replacement programmes. Poor street lighting will have obvious detrimental effects on the safety of carriageways and footways.

In compliance with the Council's Carbon Management Action Plan, a continuing programme to replace obsolete lantern and lighting systems with modern energy efficient equipment must be sustained if the target of a 15% reduction in energy use by 2014/15 is to be achieved. Significant progress has been made with improvements to the efficiency of lighting units, but the acceptability of reduced operating hours or lower lighting levels is under review. New technologies such as Light Emitting Diode (LED) units may offer at least a partial solution and these systems are being incorporated in operational systems where their whole life costs can be evaluated.

Actions:

- Continue to increase levels of funding for the City's lighting infrastructure.
- In compliance with the Council's Carbon Management Plan, look to replace obsolete lantern and lighting systems with modern energy efficient equipment.
- Consideration of lower lighting levels or reduced operating hours of lighting in low priority areas

Structures

Objective
To ensure that all road related structures in Aberdeen (that the Council is responsible for?) are managed and maintained, safe and fit for purpose.

Aberdeen City Council is responsible for the maintenance of over 840 bridges and other highway structures throughout the City. Bridges are a crucial element within the City's transport system, while also forming an important part of Aberdeen's built heritage. There is a backlog of bridge strengthening and repair works required throughout the City. Funding has been secured for strengthening the Rob Roy Bridge (A93) at Peterculter however two further bridges are subject to temporary weight restrictions and, in addition to three other bridges, are awaiting availability of funds for strengthening works or replacement.

Actions:

- Work to increase investment in structural maintenance and repairs across the City to continue to address backlogs.
- Continue to inspect, assess and maintain all structures in accordance with the Code of Practice for Bridge Management.
- Where new bridges are required, strive to develop structures that complement the surrounding environment and are accessible to all modes.
- Aberdeen City Council will maintain and enhance where appropriate the existing road network to allow adequate transportation of road freight.

Flooding (possible merge with Winter Maintenance)

Objective:
To ensure that the road network is as resilient as possible in case of flooding from extreme weather conditions.

The most frequent climate related impact in Aberdeen City between 2008-13 was damage to infrastructure such as roads, railways and networks with flooding causing severe disruption to the local transport network. The City Council is responsible for the long-term assessment and implementation of flood defence schemes throughout the city and in relation to the transport network is mostly concerned with rainfall and the resulting river and urban flooding as well as drainage issues.

Scottish Environment Protection Agency (SEPA) has predicted that Aberdeen could see a 20% increase in rainfall and up to a 1/2 meter sea level rise over the next century with the annual cost of flood damage in Aberdeen estimated at £17million. At present, flood predictions are revised as and when events happen in the city as there is less than 100 years of flood data. Areas at risk from flooding have been identified and after a flooding event a local plan is drawn up to highlight any previously unidentified areas.

The Council is currently working to develop a North East local plan, which is due to be published in 2015 in collaboration with SEPA, Scottish Water, Moray and Aberdeenshire Council. This flood risk management report commits Aberdeen City Council to actions within six years.

The Scottish Government launched an online map viewer to show properties at risk of flooding in 2014. In addition, more detailed maps are being produced through the Council's Geographical Information System (GIS) which will give a better idea of areas at risk from flooding.

The maintenance of coastal defences and guarding against flooding is another area that the Council will continue to oversee in order to ensure the safe and efficient maintenance of the City's transport networks. The Council recognises the increased risk of flooding as a result of climate change and will continue to implement a range of hard and soft engineering measures when dealing with flood risk management and mitigation.

Flooding due to blocked drains is addressed by Roads Maintenance. There is also a regime for the inspection of open watercourses in place, and hecks (trash screens) are inspected on a monthly basis and before anticipated high level rainfall.

Actions:

- Continue to assess flood defences throughout the City
- Work with Partners to develop a North East local plan
- Continue to assess areas at risk from flooding
- Implement a range of hard and soft engineering measures to deal with flood risk management and mitigation.

Winter Maintenance

Objective
To ensure the safe movement of traffic on carriageways, footpaths, cycle paths and pedestrian precincts to minimise delays caused by adverse winter weather.

Aberdeen City Council has winter maintenance arrangements in place to address its statutory obligations. This includes taking steps as it considers reasonable to prevent snow and ice endangering the safe passage of pedestrians and vehicles over those public roads for which it has responsibility as local Roads Authority. By definition those public roads include carriageways, footpaths, cyclepaths and pedestrian precincts.

Aberdeen City Council carries out winter maintenance operations using a priority system which is detailed in the Roads Winter Service Plan.

Priority 1 routes are principal roads or other classified roads serving as the main routes of major traffic distributors. These carry heavy traffic flows or serve as major public transport routes or give essential access to public service or emergency facilities.

Priority 2 routes are principal and other classified roads not included in the priority 1 list but which serve as main roads or as traffic distributors and which carry medium traffic flows or give access to community or public facilities of a non-essential nature.

Priority 3 locations are access roads, service roads and minor roads where it could be expected that residents could make their way with some difficulty in all but abnormal conditions to the nearest higher priority route.

When required by weather conditions, priority 1 routes are repeatedly gritted until they remain clear and safe for vehicular, cycle and pedestrian traffic. Depending on the severity of the conditions, treatment can often be delayed on priority 2 and 3 routes as all the Council's resources are tied up on priority 1 routes. It is believed that low levels of central government grant for winter maintenance is an issue that needs to be addressed to reflect the needs of the North East climate conditions.

Aberdeen City Council, working with six other Councils in the East and North East of Scotland, has procured a joint winter service for weather information through the Met Office and road surface condition information through Vaisala. This joint procurement has not only kept cost down but allows more cross-council working to take place.

Actions:

- Continue to undertake winter maintenance operations and examine opportunities to achieve Best Value through partnership working.
- Lobby for further investment in winter maintenance relative to the needs of the North East climate.
- To review and update the programme of winter maintenance based on priorities established in the Winter Maintenance Operations Programme on an annual basis
- To continue to review annually and publish a Winter Maintenance Operations Programme.
- Provide a standard of service on its public roads which will permit safe passage of vehicles, cyclists and pedestrians on main routes appropriate to the prevailing weather conditions.
- Establish a pattern of working which will minimise delays and diversions due to winter weather as far as is reasonably practical.
- Respond to cases of serious hardship during extended periods of severe weather
- Update annually and implement the Winter Maintenance Procedures and Resources document
- Following receipt of adverse winter conditions forecast treat …% of the road network on a precautionary basis
- Following receipt of adverse winter conditions forecast treat x% of the footway network on a precautionary basis
- During extreme weather conditions treat secondary and extreme (road) routes as resources permit
- During extreme weather conditions treat (footway) accessibility routes and the rest as resources permit.

Contingency Planning and Utilities

Objective:
To ensure efficient flow of traffic

The significant growth in both housing and commercial developments across the region, as well as advances in communications technology, has necessitated a great deal of investment in supporting utility infrastructure.

A large proportion of roadworks in the city are carried out by utility companies and coordination of these works in tandem with the City Council's improvements are important to ensure that the road system operates as smoothly and effectively as possible. Timely information and publicity about the nature and programming of highway maintenance works will therefore continue to be provided to those affected. Any delays or extensions to work will also be conveyed in a timely manner, particularly to bus companies who have to plan services well in advance.

Contingency planning is required to manage traffic during periods of both routine and emergency road maintenance, as well as in severe weather conditions and road accidents. Road closures can be commonplace, leading to the requirement for signed diversions and alternative routes. The Council has a key role in ensuring that this information is conveyed to the public and transport users in an efficient manger, allowing people to make informed travel choices. The Smart Journey project is an interactive and immediate way for the travelling public to receive live traffic information through their smartphone or computer, and this will be further publicised to encourage members of the public to join.

Actions:

- Ensure that roads and pavements are repaired promptly and appropriately as part of utilities works.
- Ensure inspections are carried out by ACC and road defects associated with roadworks/ utility operations are identified and reported
- Ensure that any roadworks are promoted through appropriate channels, such as Smart Journey, and that notice for works and any amendments are given in a timely manner to avoid impact on Partners, such as the bus operators, and the travelling public
- Ensure that temporary closures make provision for cyclists and pedestrians
- In the case of an emergency, such as severe weather conditions or a major accident, the Council will update the corporate website, Smart Journey, as well as Twitter and Facebook, and Variable Message Signs on the local and regional network with relevant information and advice.

Summary

6.3 Management

Introduction

In this section, policies and proposed interventions are set out for elements of the transport network for which Aberdeen City Council has a responsibility to manage and coordinate.

Car Parking

Objective:

To develop a car parking regime that sustains and enhances the economic vitality of the City Centre and district shopping centres.

The Nestrans Regional Parking Strategy 2012 details the overarching issues, opportunities, objectives and actions for parking covering both City and Shire. The Council's parking policies and actions have been revised to take this document into account with further detail on City-specific policy areas provided.

The Council and this Strategy recognise that parking is a key element of managing demand and influencing modal choice. Parking controls can be used, where appropriate, as part of an integrated strategy to contribute to:

- Improving the financial viability of bus, Park & Choose and rail services;
- Encouraging shorter trips within the urban areas to transfer to walking, cycling and public transport;
- Locking in the benefits of reduced traffic by reallocating road space to people through pedestrianisation and public realm enhancements;
- Improving quality of life in both residential areas as well as the city centres through greater opportunities for active travel, less motorised travel movements and emissions.

The Council is responsible for the management and maintenance of all on-street parking, the enforcement of Controlled Parking Zones (CPZs), the administration of parking permits, provision of parking spaces for disabled people as well as a number of off-street car parks.

Turnover of spaces

Whilst looking to introduce new parking policies which discourage non-priority users and help maintain the vitality of the City Centre, we recognise the importance of providing an adequate supply of short stay parking to support the needs of businesses, short stay shoppers and visitors.

Edge of City Park and Choose car parks on the strategic road network will continue to be developed for longer stay parking and off-street car parking in the city centre will focus on short to medium-stay requirements. This will ensure maximum turnover of spaces and discourage all day commuter parking, as additional city centre commuter parking would have a detrimental effect on peak period congestion.

A review of how space is allocated within off-street car parks is required in order to facilitate parking for residents, visitors, car sharers, car clubs and environmentally friendly vehicles. If space were freed up on street from reduced parking pressure opportunities could then be explored for the removal of on-street parking and reallocation of road space to pedestrians, cyclists and public transport.

Evening parking availability and Sunday parking requires to be balanced between the requirements for residential parking in the City Centre and those requiring to access the businesses within the night time and weekend economy.

Charges

As well as being a mechanism for managing the length of stay, and therefore turnover of spaces, pricing can significantly influence travel demand. Within Aberdeen the City Council has control of approximately half of available off-street public parking. Parking charges at Council facilities will be considered alongside inflation, local bus fares, park & choose charges and rail fares and we will work closely with private operators, using contractual and planning powers, to influence their approach The focus will be on adjusting price to encourage commuters and long stay parkers to use public transport thereby leaving town and city centre spaces available for short stay customers, service users and residents. This may require review in some areas to ensure prices and time limits are consistent across zones and streets.

An option to pay for parking by mobile telephone is available in all ACC off-street car parks and in the vast majority of on-street zones. The final zones to be given this payment option – Garthdee and Forresterhill – will be added during 2015. This payment method is increasingly popular and presently 20% of all transactions are made through this method. This convenient means of payment should enable a reduction in pay and display machines which are often subject to vandalism.

Given the current Air Quality Management Areas within the City the Council has also explored emission based parking charges in order to incentivise the take up of more environmentally friendly vehicles.

Permits

The availability of permits requires to be carefully managed in order to minimise the over-subscription of permits and sterilisation of road space as well as favour environmentally friendly vehicles. The Council's off-street public parking facilities are regularly monitored to ensure that spaces available to permit holders are limited to ensure a balance between the demand for permits and the demand for Pay & Display bays.

Disabled Users/ Mobility Impaired Drivers

We will continue to consider the needs of disabled users, ensuring an adequate supply of blue badge spaces are provided at the most convenient locations. The Council will continue to support and promote the national Blue Badge Scheme, which provides parking concessions for disabled people, allowing them to park closer to their destination.

Management

We also acknowledge that in order for our parking policies to have an impact, as well as to support the efficient movement of public transport services, better enforcement of illegal parking will be required. Rationalisation of on-street parking along some of our major corridors, which can contribute to reduced levels of service for all transport network users, also has to be reviewed on a corridor by corridor basis.

It is recognised that misuse of blue badges is relatively commonplace and initial assessments in Aberdeen demonstrates that this is an issue that requires action. Blue badge fraud has various negative implications: causing unnecessary congestion and denying disabled people from accessible parking. This LTS supports the creation of an investigation service to reduce fraudulent use of Blue badges.

As parking standards for new developments have an important influence on how people travel, car parking standards for developers will be strictly adhered to avoid exceeding maximum standards. Where feasible the Council will support car-free developments or developments with limited parking, provided it is combined with high quality public transport and other sustainable transport initiatives, for example, City Car Club schemes.

Where there are increases in on-street parking demand, either because of development or overspill from existing facilities, a pragmatic approach to prevent indiscriminate parking will be applied. Where residential amenity is affected, or unrestricted parking is undermining other forms of transport and creating congestion, Controlled Parking Zones will be extended (where there is support from the local residents). Parking and loading controls (ie single and double yellow lines) will be used to enable safe and effective movement by all means of transport.

Actions:

- Encourage a high turnover of spaces, especially in the city centre, by ensuring our parking controls, pricing structures and policies do not encourage commuter car parking and instead support short stay retail, leisure and business trips
- Encourage shorter trips within the urban area to transfer to walking, cycling and public transport, and longer trips outwith the urban area to utilise Park & Choose
- Minimise the negative impacts of parking on streetscape and ensuring the ability of public transport to flow freely on key bus corridors
- Protect residents' ability to park and load close to their homes by extending Controlled Parking Zones to areas where residential amenity is affected by commuter parking
- Protect businesses, tradespeople, and visitors ability to park and load by management of Controlled Parking Zones and ensuring enforcement of parking and loading restrictions
- Facilitate the operation of car clubs, take up of car sharing and environmentally vehicles
- The Council will ensure that parking policies take into account the needs of people with mobility impairments and other disabilities.
- Improve payment options by ensuring pay by phone parking is available to all on-street parking as well as all Council owned car parks.

- Work with partner organisations and private car park operators using contractual and planning powers to encourage pricing and length of stay regimes in off-street car parks that facilitate shopping and other short medium stay activities
- To increase compliance with disabled parking arrangements and reduce fraudulent use of 'blue badges' by the creation of a temporary blue badge fraud investigation service.

- Consider an additional car park in the city centre if CCMP advises another required in east end on inner ring road?

Community and Demand Responsive Transport

Objective
To continue to work with Partners to deliver Demand Responsive Transport for the benefit of the public.

Demand Responsive Transport (DRT) is a flexible form of community transport and has an extremely important role in Aberdeen in combating problems of social exclusion and access to healthcare. Community transport can take many forms and is essentially a pre-arranged lift, commonly operated by volunteers and not for profit. The key to the success of Community Transport is that it is community led by the people who it is intended to benefit.

In Aberdeen the Council manages a DRT service which provides door to door, demand responsive, wheelchair accessible minibuses five days a week. The service supports social inclusion by providing access to shops, medical appointments, and other local services and facilities for those that have no alternative means of transport. The service has been a great success and with unprecedented demand there is a need for further DRT services in Aberdeen.

A number of Community Transport services in Aberdeen have recently been funded via the Change Fund, as part of a Social Transport project, assisting older people in travelling to healthcare and social activities. In order to continue the service, following the end of the two year Change Fund funding, the Aberdeen Council of Voluntary Organisations (ACVO) is exploring potential for Corporate Social Responsibility contributions. The Council will continue to support groups looking to develop Community Transport schemes by providing guidance and assistance in preparing funding applications.

Working with a number of partners including Nestrans, the Robert Gordon University (RGU), ACVO and third sector transport providers the Council is assisting in the development of a Social Transport Action Plan. Intended to improve social inclusion this will consider current demand for services, how this can be delivered, and any opportunities to integrate and coordinate community transport schemes with other DRT services. One such example being investigated is working with Partner organisations to employ a member of staff to drive the Car Club's Wheelchair Accessible Vehicles on a DRT basis.

The Health and Transport Action Plan and Social Transport Working Group are taking this a step further and piloting a transport brokerage system which will seek to pull together

Council services with those of the voluntary and health sectors into one centralised booking and dispatch database. It is believed there are a range of services in Aberdeen City and the Aberdeenshire and Moray areas which could collectively be brought together into such a centralised transport mobility agency.

Actions:

- Continue to provide DRT services through the Council
- Continue to support groups looking to develop Community Transport schemes
- Work with Partners to deliver a Social Transport Action Plan
- Work with Partners through the Health and Transport Action Plan and Social Transport Working Group with the ultimate aim of pulling together Council services with those of the voluntary and health sectors into one centralised and integrated booking system.

Taxis and Private Hire Cars

Objective
To work in partnership with the taxi and private hire car trade to ensure an adequate supply of safe, clean and accessible vehicles

Taxis and private hire cars (PHCs) are an important part of the public transport network, as they play a variety of roles in an integrated transport system. In 2009 bus lane rules were relaxed to allow taxis and PHCs full access as they are particularly important in providing a flexible, demand responsive service at times or in places where public services are not available. The Council also makes extensive use of them for transporting school children and social care clients.

In 2014 there were 1,352 taxis and PHCs, an increase of 21% on 2007 levels. The current limit for the number of taxis licensed in Aberdeen has been capped by the Licensing Committee at 1,079 after an independently conducted Taxi Demand Survey determined that there was significant unmet demand. Currently 53% of the taxi fleet are accessible vehicles (AVs). The Council also has implemented a policy commitment to ensure that the taxi fleet is 100% accessible by Summer 2017 in order to meet its obligations in terms of the Public Sector Equality Duty under the Equality Act 2010.

As vehicle exhaust emissions are a principal source of air pollution the Council is investigating the possibility of encouraging greater deployment of environmentally friendly vehicles into taxi and private hire fleets in order to meet our air quality targets. At this point availability of ultra-low emission WAVs are limited and as such the Council will monitor the availability of ultra-low emission WAVs and investigate the potential for low emission vehicle standards part of Licensing.

A Night Time Transport Zone has been developed for the City Centre in order to create a safe and secure transport zone in the evenings. This involved moving taxi ranks from the side streets onto Union Street between midnight and 5am in order to provide secure and centralised transport for the circa 20,000 people that enjoy the night time economy every weekend. The ranks have been extremely successful in reducing the number of incidents

and have been running seven nights a week since 2011 with Transport Marshals in place at the weekend and on occasions of expected heavy usage. An associated Safer Aberdeen mobile App has also been developed.

Actions:

- To continue to improve the safety of School and Social Work Transport by implementing Best Practice procedures stemming from Transport Guidelines issued by the Department fro Transport and Transport Scotland
- To continue to monitor the cap on taxi licences and modify according to demand
- To comply with the Equality Act 2010 ensure all taxis are wheelchair accessible by Summer 2017
- To investigate potential for increasing the number of ultra low or low emission vehicles onto the taxi and PHC fleets.
- To ensure the continued successful operation of the Night Time Transport Zone with associated marshals.
- Action related to issues of taxis at Aberdeen Station and Aberdeen Airport

Coaches

Objective
To highlight appropriate pick up, drop off and waiting zones for tourist coaches

The increase in tourism to the north east of Scotland has been accompanied by an increase in the number of visitor and tourist coaches accessing the civic areas of the City. Waiting coaches can cause an obstruction and delays to other public vehicles and it is important that coaches pick up and drop off at identified quieter stops. With potential pedestrianisation proposals there will be a requirement to review appropriate stops. The Council will also continue to raise awareness amongst coach operators that coaches should wait at the beach area until required to make a pick-up.

Actions:

- To continue to promote awareness amongst coach operators for appropriate pick up, drop off and waiting areas
- To review pick up and drop off points in line with any potential pedestrianisation schemes.

Traffic Management and Road Safety

Objective
To work towards a road network where all users are safe from the risk of being killed or seriously injured, and the injury rate is much reduced.

The Scottish Government's Road Safety Framework to 2020 sets the context for road safety, taking into account the needs of all users and focusing resources on activities in areas which will achieve maximum casualty reduction in the most cost-effective manner. In order to establish how the City contributes towards the ambitious targets as set out in the Framework, the Council published a Joint Road Safety Plan with Partners at Aberdeenshire City and Moray Council in 2011.

Aberdeen City Council has been particularly successful in improving road safety over the last five years and in order to determine where additional gains can be made the Community Safety Partnership, a group of both public and private sector partners, has been key to establishing priorities for the City. The Road Safety Working Group has identified thirteen emerging trends of which four are considered a high priority:

- Indiscriminate parking/ speeding around schools
- Cycle related collisions
- Car crime
- Alcohol related collisions/ pedestrian accidents

With the other nine medium and low emerging trends a further Action Plan is being developed to determine how each of the issues can be risk assessed, resourced and addressed.

Aberdeen City Council also continues to work with Partners to focus on the '4Es' of Engineering, Education, Encouragement and Enforcement. While much of Enforcement remains the remit of Police Scotland the City's Wardens continue to be an invaluable asset in ensuring that vehicles are moved if they are causing an obstruction and further information on other schemes the Council is enforcing can be found in the Enforcement section below. Education and Encouragement have tended to focus on safety messages to school children with the Council rolling out Bikeability to every school. The Council has expanded its educational remit to include Variable Message Signs throughout the City; all road users can now be targeted with safety messages as well being informed about road works.

Engineering is the main remit of the Council and in order to reduce speeds to levels aimed at minimising accident casualties 20mph zones and traffic calming have been introduced around every school in the City. We also recognise that perceptions of road safety can have a major impact on walking, cycling and the use of the streetscape, the Council will continue to introduce traffic calming within residential areas and appropriate shopping areas. New road schemes will continue to be audited for safety to ensure that the optimum design for pedestrians and cyclists has been considered.

Actions:

- To consider additional 20mph zones.
- To continue to work with Partners to deliver the Joint Road Safety Plan and ensure that the current low levels of road fatalities in Aberdeen are maintained.
- To continue to work with Partners at the Community Road Safety Partnership to prepare an Action Plan and deliver improvements to the emerging trends and targets for the Road Safety Working Group.
- To continue to implement a combination of encouragement, enforcement, education and engineering measures to improve road safety and reduce casualty levels for all groups across the City.

- To continue to implement traffic calming schemes in order to reduce speeds aimed at minimising casualties and will ensure that such schemes improve safety and encourage more pedestrians and cyclists.
- Accident investigation and prevention?

CCTV (merge with enforcement?)

Objective
To sustain CCTV in the City Centre for the safety and security of the public realm

The maintenance and development of CCTV coverage across the City Centre can help to improve safety and perceptions of safety. Discussions are on-going with Police Scotland in order to modernise CCTV systems and integrating CCV monitoring arrangements to deliver a more sustainable solution. Going forward, the Council will continue to work through bodies such as the Aberdeen Community Safety Partnership and Police Scotland to ensure our CCTV network is maintained and monitored. In particular, we will support the use of CCTV on public transport and support CCTV coverage at public transport interchanges as well as in the City Centre to reduce the threat of violence and vandalism, and improve feelings of safety.

CCTV also has an important role in managing the City's road network. By observing traffic flows and the occurrence of incidents officers can take appropriate steps to mitigate any congestion such as altering traffic signal timings and alerting drivers through variable message signs or other media.

Actions:

- To work with Partners to ensure the continued maintenance of CCTV
- To work with Partners to ensure the continued use of CCTV for safety and security purposes.

Enforcement

Objective
To ensure the Council manages and enforces the road network to ensure safety and effectiveness for the benefit of all users.

Ensuring effective enforcement of traffic regulation orders will be key to achieving many of the Council's traffic management objectives.

Car parking is currently decriminalised in Aberdeen and the City Council enforce on-street throughout the City and within our off-street car parks in order to ensure safety benefits for

pedestrians and road users, maintain an effective flow of traffic and ensure parking is available for the needs of legitimate users.

Aberdeen City Council was granted authority to carry out the civil enforcement of bus lanes, as such bus lane enforcement is now the responsibility of the City Council rather than Police Scotland. Eleven digital cameras have been installed on strategic routes across the city to tackle the growing problem of illegal use of the bus lanes. The main objectives are to improve traffic flow, journey times, encourage the use of public transport, and improve air quality in the city. Any monies received from bus lane enforcement are allocated towards achieving LTS objectives and delivering LTS actions. It is also recognised that stopping in bus lanes in sensitive locations can significantly affect the flow of traffic. As such the Council will explore additional legislation to ensure greater enforcement of the urban clearway principle with strict 'no stopping' regimes except for buses at certain times of the day.

Parental parking immediately outside schools has also been raised as an issue which requires constant enforcement and parental education, such as through the School Travel Planning process. The problem has been deemed as a high priority by the Community Safety Partnership with Police Scotland and City Wardens patrolling schools to ensure that indiscriminate parking is addressed. There is also a role for Traffic Management through implementation of no car zones outside schools (such as the East Lothian trail), footway widening, safe crossings and other self-enforcing measures to improve safety around schools and encourage active travel.

The use of speed cameras and other forms of surveillance technology will continue through the North East Safety Camera Partnership (NESCAMP) to improve levels of safety at accident black spots. Furthermore the Council acknowledges the role that average speed cameras can play in reducing vehicle speeds and improving safety levels.

It is recognised that misuse of blue badges is relatively commonplace and initial assessments in Aberdeen demonstrates that this is an issue that requires action. Blue badge fraud has various negative implications: causing unnecessary congestion and denying disabled people from accessible parking. This LTS supports the creation of an investigation service to reduce fraudulent use of Blue badges.

Illegal/rogue parking?
Waiting restrictions?

Actions:

- Bus lane enforcement cameras will continue to be managed to prosecute unauthorised drivers who enter bus lanes during operating hours. As per the Scottish Government legislation the Council will continue to invest any revenue into delivering LTS objectives and actions.
- To ensure greater enforcement the Council will adhere to urban clearway principles in sensitive locations with a strict 'no stopping regime' except for buses at certain times of the day.
- ACC will continue to address indiscriminate parking outside schools with Police Scotland and will work with Parent Teacher Associations to identify where traffic management solutions could improve safety around schools.

- ACC will support the implementation of speed cameras where appropriate to improve levels of safety. The Council will also support the use of average speed cameras where appropriate.
- To increase compliance with disabled parking arrangements and reduce fraudulent use of 'blue badges' by the creation of a temporary blue badge fraud investigation service.

Air Quality

Objective
To improve air quality across the City, so that the existing Air Quality Management Areas are revoked and no further Air Quality Management Areas are declared.

Standards for air quality in Scotland are set out in the EU Air Quality Directive, the Scottish Air Quality Regulations and the UK National Air Quality Strategy. Failure to achieve the European Limit Values for air pollutants could lead to fines being imposed on the Scottish Government. The Scottish Government has set more stringent standards for particulate (PM10) pollution than apply across the EU.

The main pollutants of concern in Aberdeen, NO2 and fine particulate matter, are known to have an adverse effect on human health; studies have demonstrated that poor air quality is estimated to reduce the life expectancy of each person in the UK by an average of 6-7 months with estimated annual health costs of up to £20 billion. Emissions of PM2.5 (fine particles that have the greatest health impacts) were estimated to be an attributable factor in 86 deaths of people aged 25 or over in Aberdeen in 2010. Therefore it is necessary to protect the health of the City's inhabitants. In parts of Aberdeen, the EU NO2 annual and hourly mean and the Scottish PM10 annual and daily mean concentrations are currently exceeded. This has led to the declaration of three Air Quality Management Areas (AQMAs): the City Centre, Wellington Road and Anderson Drive. In Aberdeen road traffic is recognised as being the most significant contributor, accounting for up to 90% of the total NO2 concentration.

The Council is committed to improving air quality throughout the City and has produced an Air Quality Action Plan (AQAP) detailing specific measures to reduce concentrations of NO2 and PM10s within the City. As transport is the main cause of air pollution five of the six categories designed to address air quality in the AQAP relate to transport: modal shift and influencing travel choice; lowering emissions and cleaner vehicles; road infrastructure; traffic management; and, planning and policies. These are all areas that are reflected within this LTS and further detail on each of these elements is provided within the following chapters.

The planning system has a role in ensuring that, within the context of a thriving sustainable economy, additional vehicle trips associated with new developments do not result in a deterioration in air quality, particularly within or adjacent to AQMAs or other areas of poor air quality. Land Use planning to promote and enable development that reduces the need to travel and minimise reliance on the provide car will minimise the air quality impacts. Additional mitigation measures may be required to manage transportation impacts where the

development may result in increased emissions within an AQMA and to avoid the declaration of any new AQMAs.

Actions:

- Ensure that Air Quality Action Plan measures and Local Transport Strategy aims, outcomes, objectives and actions are aligned.
- Improve air quality throughout the City, particularly within the AQMAs and investigate and implement measures designed to reduce air pollution (for example low emission zones, emission based parking charges, alternatively fuelled vehicles)
- To require mitigation measures for new schemes, where additional vehicle trips will impact on air quality.

Noise

Objective
To reduce transport noise within Aberdeen City

The Environmental Noise (Scotland) Regulations 2006 implement the European Noise Directive 2002/49/EC and describe a two stage process to manage environmental noise. The first stage is the production of strategic noise maps and the second stage is the production and implementation of Action plans. The process is repeated every 5 years (rounds).

The regulations apply to environmental noise to which humans are exposed, in particular, in built up areas, public parks or other quiet areas in an agglomeration, near schools, hospitals, and other noise sensitive buildings and areas. The regulations apply to noise from road, railway, and airport sources, as well as industrial noise.

Strategic noise maps for Aberdeen were produced in May 2013 and the top 1% of identified noise areas were selected for consideration as Candidate Noise Management Areas (CNMAs) for road and rail. The mapping process also identified candidate Quiet Areas (cQAs). The candidate areas are then verified to identify which areas are to go forward as Noise Management Areas and Quiet areas in Aberdeen. An Aberdeen Agglomeration Noise Action Plan has been produced and highlights actions to reduce the impacts of transportation noise in Noise Management Areas and the protection of Quiet Areas. The Action Plan and current Noise Management Areas and Quiet Areas are available at www.scottishnoisemapping.org.

Noise Management Areas will be assessed in terms of existing UK, Scottish, and local policies, plans, and programmes that may have an impact on the strategic environmental noise climate (e.g. transport plans and programmes, local plans, air quality management plans). Any potential noise mitigation measures to manage noise will be subject to a cost benefit analysis.

The planning system has a role in ensuring that within the context of a thriving sustainable economy new development does not result in increasing numbers of people exposed to adverse noise impacts. The Council will require mitigation measures, such as noise barriers,

vegetation and fencing, where required for new transport schemes that may impact on existing noise sensitive receptors such as residential accommodation, hospitals and schools. By adopting good practice, from the outset, it is hoped that the Council can reduce transportation noise through a range of measures that promote more sustainable transport.

Actions:

- To identify Noise Management Areas and Quiet Areas within Aberdeen
- To implement the Noise Action Plan
- To require mitigation measures for new schemes, with respect to managing transportation noise.

Summary

6.4 Sustainable Development and Travel

Introduction

The sections up to now have concentrated on the supply side of transport and the maintenance and management measures that the Council will use to ensure the performance of the existing network is optimised. However, a further way to get better use out of the existing transport network is to change the demand for travel and encourage a travel behaviour change which enables better use of the existing transport system. This section outlines the Council's strategies to encourage the use of sustainable travel modes and, where possible, reduce the need to travel.

Land Use Planning

Objective

To promote and enable development that reduces the need to travel, minimises reliance on the private car and facilitates and encourages walking and cycling for everyday trips.

Land use planning has a key role to play in reducing the need to travel and in creating the right conditions for greater use of sustainable transport modes.

Aberdeen City Council is committed to development that encourages sustainable travel and recognises that transport provision should be considered at the very beginning of the planning application process. The Aberdeen Local Development Plan (ALDP) 2012 sets out the land use aspirations of the Council from now to 2030 and contains a series of policies that seek to minimise the transport impacts of new developments.

All new developments should seek to minimise travel by private car. Residential developments should be located in close proximity to a range of local facilities, including schools, shops, health and recreational sites thus encouraging shorter local journeys that can be undertaken on foot or by bike. New employment and industrial developments are encouraged on active and public transport corridors to make use of opportunities offered by existing infrastructure and the commercial bus network.

Access to, and movements within and between new and existing developments should prioritise walking, cycling and public transport, allowing for public transport penetration where appropriate. Street layouts should reflect the principles of Designing Streets, while Home Zones, where streets are designed to give pedestrians and cyclists greater priority over vehicles, and low and/or no-car housing and other developments will be encouraged in highly accessible locations.

The ALDP is accompanied by Supplementary Guidance on Transport and Accessibility to assist developers in the preparation of planning applications. This includes expected accessibility standards for new communities, detailed guidance on Transport Assessments and Travel Plans and maximum parking standards for new development. Parking standards for new developments play an important role in how people travel; they can assist with

containing traffic generation, support the economic viability of locations that favour walking, cycling and public transport, as well as encourage uptake of these modes. To this end the Council will ensure that parking standards are strictly adhered to.

Actions:

- Ensure that new developments are accessible by a range of modes of transport and prioritise access and permeability by sustainable modes.
- Ensure that all new developments demonstrate that sufficient measures have been taken to minimise traffic generation through Transport Assessments, Travel Plans and Travel Packs.
- Require developers to contribute towards appropriate off-site transport measures, particularly where new development is adding further pressure to the transport network.
- Ensure maximum car parking standards are not exceeded in all new developments.
- Support the implementation of Home Zones and low/no car housing where appropriate.
- Support development of brownfield sites and mixed use communities in recognition of their ability to reduce travel distances.
- In the case of several individual developments taking place in an area over a period of years, use Masterplans to ensure appropriate infrastructure and services, including transport, are provided for the whole development area.
- Ensure the vision, aims and objectives of the refreshed LTS are reflected in the content of the next Aberdeen Local Development Plan, due to be published in draft form in February 2015.

Travel Plans

Objective(s)

To ensure that the transport impact of new development is minimised by requiring developers to prepare Travel Plans and, where appropriate, Travel Packs for all new sites in the City.

To promote Travel Planning for existing sites, particularly workplaces and schools, to reduce their impact on the surrounding transport network. / make well-informed transport choices.

A Travel Plan is a general term for a package of measures tailored to the needs of an individual site and aimed at promoting more sustainable travel choices to and from that site, thus reducing reliance on the private car. As well as having a positive impact on the local environment, Travel Plans can contribute to improved health, reduced congestion and fewer parking problems.

All significant developments are required to prepare a Travel Plan in support of an application for planning permission. This should outline measures to ensure the site is accessible by a range of transport modes, rather than just by car. These can include (but are certainly not limited to) ensuring the internal layout of the development facilitates walking and cycling and/or has been designed with public transport penetration in mind; installing

secure bicycle parking on-site; subsidising a bus service for an agreed period; and implementing dedicated car share spaces on-site.

For residential developments, developers are urged to prepare a Residential Travel Pack for new homeowners and tenants to make them aware of the opportunities for active and sustainable travel in the area, and to supply new residents with the information they need to make informed choices about how they travel, such as providing local walking and cycle maps, public transport timetables, etc.

Travel Plans are also encouraged for existing sites looking to minimise their impact on the local area and to improve the health and wellbeing of those using the site. A free online Travel Plan Builder is available for workplaces to use, which guides users step by step through the creation of a site-specific Travel Plan.

An important element of travel planning is reducing the need to travel in the first place. This is becoming increasingly possible with new technology allowing employees to work from home or in remote locations and to attend meetings or conduct conversations over the web, rather than requiring interaction between participants at the same location.

Actions:

- Continue to require all significant developments in the City to be accompanied by a Travel Plan to demonstrate how the impact of that development on the surrounding transport network will be minimised.
- Continue to require Residential Travel Packs to be issued to residents of new housing developments in the City.
- Encourage the widespread implementation of voluntary Travel Plans for schools, housing developments and workplaces.
- Continue to work with partners in Getabout to share information and best practice in relation to Travel Plans and sustainable transport initiatives.
- Revise the Council's own Travel Plan as an example of best practice in the City.
- Promote and facilitate 'smarter' working and measures to reduce the need to travel, including promotion of remote and flexible working practices, the use of video- and web-conferencing technologies and the increased implementation of Wi-Fi facilities across the City.
- Identify resources to ensure that Travel Plans are monitored and enforced to maintain momentum and ensure effectiveness beyond the initial implementation of a development.

Car Sharing

Objective
To continue to promote and facilitate car sharing as a sustainable transport option.

Car sharing involves two or more people sharing a car to get from A to B instead of travelling alone and can deliver economic, environmental and social benefits. For example, if everyone was to car share just one day of the week for their travel to work, commuting car journeys

would reduce by 10%, both parties would save money, time would be saved looking for parking spaces and carbon emissions would be reduced.

Although it is recognised that car sharing often takes place informally and on an ad-hoc basis, there is a formal car share scheme, freely available to all citizens of the North East, through Getabout at www.getabout.liftshare.com.

The Council currently promotes car sharing through travel plans and at Park & Choose sites. As the AWPR moves to completion, more ambitious schemes, such as High Occupancy Vehicle (HOV) lanes could be revisited as part of the efforts to 'lock in' or optimise the benefits of the new bypass.

Actions:

- Continue to promote the benefits of car sharing and the regional car sharing database.
- Encourage employers to join the car sharing scheme or set up their own site-specific schemes as an important element of an effective Travel Plan.
- Encourage workplaces to introduce preferential car parking spaces for car sharers.

Car Clubs

Objective
To continue to facilitate and promote the Car Club in order to provide transport choice without necessitating individual car ownership

Until fairly recently non-car owners within the City had no opportunity to access a vehicle without purchase or car hire. A car club allows residents and businesses alike to access pay-as-you-drive vehicles located on-street as an alternative to conventional car ownership. A single car club vehicle in Aberdeen has been shown to replace seventeen cars, five from people giving them up and twelve choosing not to replace them when the time comes, thus helping to reduce parking pressure as well as improve mobility. Though cheaper overall than ownership, payment at the point of use means people can clearly relate the cost of a car journey to the same trip by other means and this in turn encourages uptake of active and sustainable modes.

The Car Club tender was won by Co-wheels in 2011 and it has been extremely successful; it was the fastest growing in in Scotland in 2012/13 and 2013/14. The Car Club is also proactive in trialling alternative fuels and different vehicles; it was the first in the UK to use Wheelchair Accessible Vehicles (WAVs), the first in the World to trial new technology such as hydrogen fuel cell vehicles and the first in Scotland to adopt electric vehicles. Going forward the Council is keen to ensure that new hydrogen fuel cell technology is adopted into the fleet full-time and will work with Co-wheels and other Partner agencies to enable this to happen.

As Co-wheels is a social enterprise company it has also been working to assist the Council and Partner organisations with delivering social priorities; the purchase of additional WAVs is enabling volunteer drivers in support of the Health and Transport Action Plan to deliver DRT

services to the community. The anticipated arrival of electric vans into the Car Club fleet will allow further opportunities for the public, other businesses and services in Aberdeen as well.

Aberdeen City Council in partnership with the Car Club has also been trialling new technology through Aberdeen's smartcard, the Accord Card. This platform not only allows access to vehicles but provides concessionary travel, cashless catering, library membership and access to sports facilities. It is anticipated that the sustained roll-out of the Car Club by the City Council and Co-wheels to additional locations in Aberdeen is an important contributor to meeting the LTS's aims and outcomes: improving social access, trialling alternative fuels, benefitting local businesses and organisations, reducing car ownership and increasing members' use of active and public transport. In order to facilitate this, policies are now integrated into the Planning process.

Actions:

- Encourage the development of the Car Club in new locations and developments as part of general rollout and through the planning process
- Continue to support the Car Club by installation of new bays and associated infrastructure
- Continue to lead by example and ensure that Council staff members are utilising the Car Club rather than grey fleet in order to reduce emissions, congestion and reliance on the private car
- Continue to promote the Car Club as a feasible alternative to private car ownership
- Continue to support the Car Club in their roll out of Ultra Low Emission Vehicles (ULEVs).

Ultra Low Emission Vehicles

Objective
To facilitate the uptake of ultra-low and low emission vehicles as a contribution towards improving air quality in the City.

The Scottish Government has committed to almost complete decarbonisation of the road transport sector by 2050. Although the LTS is a five year plan this ambitious target requires consideration in the way that people and goods move around as well as a shift from current dependence on fossil-fuelled vehicles now. Although ultra-low and low emission vehicles affect congestion, parking and road safety they have an important part to play in meeting our air quality, noise and climate change targets; they have zero/ low emissions at the point of use, lower noise levels and more efficient fuel use than similar internal combustion vehicles. The Council has a key role to play in the promotion and encouragement of alternative vehicle adoption. In order to facilitate the uptake of ultra-low and low emission vehicles the Council has considered Low Emission Zones, emission based parking charges and undertaken infrastructure installation as well as vehicle trials.

Transport Scotland has developed "Switched on Scotland" a 'Roadmap' which specifically looks at electric vehicles powered entirely by batteries and plug-in hybrid electric vehicles (EVs) as these are best placed to make the most immediate impact in helping to achieve the

required transformation. They also acknowledge that other technologies, such as hydrogen fuel cell electric vehicles, will complement electric and many of the challenges and opportunities that electric is facing will remain relevant.

Whilst the EVs network of charging points is still fairly new and not yet widespread, Aberdeen City has been making strides in this regard; developing a comprehensive publicly accessible charging network serving the City and the trunk and strategic road network in partnership with Energy Saving Trust (Scotland), Transport Scotland and the Office for Low Emission Vehicles. The Council has also established Local Development Plan policies to facilitate the expansion of EV infrastructure in commercial and domestic properties, as well as at Park & Choose sites in order that all new developments are 'EV ready'.

As well as expansion of electric Aberdeen has also developed a Strategy & Action Plan for Hydrogen (2015-2025). Hydrogen fuel cell electric vehicles are better for the environment than conventional fossil fuelled vehicles, particularly in relation to air quality as they emit only water vapour. The Strategy outlines the actions required in the short, medium and long term to secure investment for further vehicle deployments and refuelling infrastructure.

The Aberdeen Hydrogen Bus Project will see ten hydrogen fuel cell buses operate in the city with an associated hydrogen refuelling station from early 2015. Two hydrogen - diesel hybrid transit vans have also been added to the Council's fleet and the Council plans to expand this by adding two electric vans with hydrogen fuel cell range extenders in 2015. The Council's leadership in demonstrating hydrogen vehicles is intended to encourage others to learn from our experiences and follow the Council's lead in adoption of hydrogen vehicles. It is hoped that when a second refuelling station, capable of refuelling both buses and cars (350 & 700 bar) is built in Altens, that this will enable further expansion of hydrogen fuelled vehicles in the City.

The Aberdeen Car Club is particularly interested in utilising ULEV technology having become the first in Scotland to introduce electric vehicles to its fleet and the first in the world to trial hydrogen vehicles. Their large membership base also allows such technologies to be easily accessible and trialled by a large number of people, which helps with public confidence in ULEVs.

Actions:

- Continue to develop Aberdeen's Electric Vehicle Charging Network and Hydrogen Refuelling Station Network with Partners
- Encourage installation of both EV infrastructure in new developments via Planning policies/ process
- Encourage the purchase of low emission vehicles through development of emission reduction measures such as emission based parking charges, Low Emission Zones and additional infrastructure
- Work with Partners to promote the benefits of ultra and low emission vehicles as an alternative to fossil fuels
- Lead by example and utilise ULEVs within the Council's fleet
- Work with Partners, such as bus companies and the Car Club, to demonstrate the practical benefits of ultra and low emission vehicles and offer the public the opportunity to trial them

Travel Information and Awareness

Objective
To engage with members of the public, employers and schools on travel behaviour-change campaigns, events and promotions and to provide the information that citizens and visitors need to let them undertake 'smarter' journeys in the City.

The Council has, for a number of years now, organised and participated in events to mark key behaviour change campaigns throughout the year, including Bike Week in June and European Mobility Week in September.

The formation of the Getabout partnership in 2009 (comprising representatives of Aberdeen City Council, Aberdeenshire Council, Nestrans, NHS Grampian, the University of Aberdeen, the Robert Gordon University, Aberdeen College and Home Energy Scotland) has allowed a region-wide approach to travel behaviour change initiatives to be undertaken, with partners sharing and combining resources, assisting one another with events and working together on large-scale events and campaigns. This has led to the development of a recognisable brand with clearly stated objectives, consistently promoted throughout Aberdeen City and Shire.

Working with Getabout, the number of transport-themed events and campaigns in the City has increased significantly since 2009, with an annual programme now in place. Events take place on-street, in parks, and in schools, universities and workplaces to promote the use of sustainable modes of transport, while raising awareness of the impacts of unrestricted car use.

Since 2010, an 'In Town Without My Car Day' event has been held annually in Aberdeen during European Mobility Week, where a road has been closed to motorised traffic and filled instead with activities and stalls for members of the public to engage with on the themes of sustainable travel and air quality. 2014 saw the Council's highest profile event yet with a City Centre event which attracted in excess of 2,000 participants. It is hoped that this will become an established annual City Centre event, representing the Council's commitment to sustainable City living.

Information on 'smarter' travel choices is also made available via printed maps and leaflets, the Council website, the dedicated Transportation and Getabout Facebook pages and Twitter account, as well as by Variable Messaging Signs (VMS) across the City which can be used to guide drivers to Park and Choose sites and warn of air quality issues.

Wayfinding
Smarter Journeys
Bus Information Strategy

Actions:

- To channel all behaviour change and promotional activity in support of sustainable transport through the regional brand, Getabout.

- Continue to work with partners in Getabout on key events and campaigns throughout the year including Bike Week and European Mobility Week.
- Continue to participate in In Town Without My Car Day and look for ways of improving the event in future years.
- Continue to publish and update walking, cycling and public transport maps and ensure these are disseminated to key locations and available on request and online.
- Maintain and update the Council's website as a source of transport information and increase our social media presence, allowing transport developments to be communicated to the public as they happen.
- Ensure information is available in a variety of formats reflecting the differing needs and preferences of users.
- Ensure that publicity materials are made available in suitable print for people with sight difficulties and in alternative languages wherever possible.
- Expand VMS coverage and look to include journey time information for various modes of transport.

School Travel and Young People

Objective

To ensure that all young people have the opportunity to travel to school by active and/or sustainable modes of transport and are equipped with the necessary knowledge, skills and infrastructure to allow them to undertake local journeys safely and independently.

The Council recognises that school travel arrangements can play an important part in fostering the development of future generations of sustainable transport user as well as contributing to their improved health, alertness at school and wider environmental policies.

There are more than 21,000 pupils travelling to and from school on a daily basis within Aberdeen. Increases in car ownership and use, greater parental choice of school, increased pressures on time and concerns over child safety in recent years have resulted in more and more children being driven to and from school and fewer children travelling by active and sustainable modes of transport. The consequences of this are more traffic on our roads at peak times (leading to more pollution, road safety concerns and increased congestion outside schools) and less opportunity for children to be physically active thus impacting on their overall health and wellbeing. Children also have less opportunity to develop independence and road safety skills if they are habitually driven to school.

Despite the worrying trend, however, significant levels of active travel are being reported by individual schools, with some showing walk to school rates well in excess of 80% and some reporting cycle to school figures above 10%, thereby demonstrating what can be achieved when the right conditions are in place. The results of initiatives such as Give Me Cycle Space and the Greenbrae Cycle Project have also shown the benefits of working closely with individual schools on in-depth projects, whilst improvements and additions to cycle and scooter parking facilities at schools have also been shown to have a perceptible impact on active travel levels.

Actions:

- Encourage and support the development of School Travel Plans including identification of safer routes to schools as well as pick up and drop off points for all new and existing schools.
- Continue to encourage travel planning initiatives such as walking buses and park and stride schemes in schools.
- Promote Best Practice examples of school travel initiatives and encourage knowledge transfer between schools.
- Consider traffic management solutions such as footway widening, improved crossing and car-free zones outside schools.
- Continue to work with schools on targeted promotional campaigns to encourage more pupils to travel by active modes of transport.
- Continue to facilitate active travel journeys through physical changes, such as improving safe routes to school for those travelling on foot, by bike or by scooter and improving cycle and scooter parking facilities at schools where required.
- Continue to take advantage of external funding opportunities for school travel projects when they arise.
- Maintain mandatory or part-time 20mph speed limits outside all schools and ensure these are in place outside any new schools that are built during the life of this LTS.
- Encourage all primary schools to deliver Bikeability Scotland training so that all our youngsters have the skills and knowledge required to cycle safely on today's roads.
- Continue to provide statutorily required transport services to schools and to support and promote the national youth concessionary travel scheme for 16 to 18 year olds along with any local ticketing arrangements.

Climate Change Mitigation and Adaptation

Objective
To contribute to Aberdeen's carbon emissions targets and develop climate resilient infrastructure

Scotland has a target of reducing greenhouse gas emissions by 42% by 2020 and 80% by 2050 (compared to 1990 levels) and transport is a key area which is proving static in terms of reducing emissions. The need to minimise emissions that contribute to climate change is ever more pressing, and under Scotland's Climate Change Act the Council is obliged to take local action to address this global threat.

Emissions of greenhouse gases (GHGs) are having a detrimental impact upon the global atmosphere. It is widely acknowledged that GHGs are contributing to changes in the global climate, with extreme weather conditions becoming increasingly common. By the end of this century Scotland is expected to have warmer, wetter winters, less snowfall and an increased risk of flooding. We therefore need to build infrastructure which is more sustainable, climate resilient and adapted to our environment, ecological conditions and landscape setting. The Council has specific actions for developing innovative and climate change adaptive methods and techniques in relation to coping with contingencies in extreme weather or flooding.

The most frequent climate related impact in Aberdeen City between 2008-13 was damage to infrastructure such as roads, railways and networks with flooding causing severe disruption to the local transport network. However, transport has a key role to play in preventing this potential disruption and damage in the first place. Flood Risk Management Plans (FRMPs) are being prepared for Aberdeen to address the localised and regional flooding problems. The River Basin Management Plans (RBMPs) 2010-2015 addresses the issues of water quality and focus on local action for the north-east of Scotland and higlights the opportunities to improve the water environment and achieving good ecological status through partnership working. This LTS will contribute towards achieving RBMP objectives as proposed in the North East Scotland Area Management Plan and the subsequent plans. The main issues relevant to this strategy under the RBMP are morphological alterations (culverting, straightening and channelisation of water bodies) having an impact on water environment. By using soft engineering techniques/ practices to address issues of morphological alterations in relation to transport schemes the Council can provide soft landscaping/ more natural habitats that assist with water conveyance and storage, thereby reducing flooding risk.

The Council can also reduce transport emissions contributing to climate change by encouraging individuals to reduce their number of journeys, undertake journeys by active and sustainable modes, and by considering alternative fuels and car sharing all of which are detailed within this LTS.

Actions:

- Ensure that the risk of flooding or environmental impact is taken into account in the design and construction of infrastructure.
- Continue to implement a range of hard and soft engineering measures when dealing with flood risk management and mitigation (currently under flooding in maintenance)
- Reduce carbon emissions from all transport by the use of smaller, low emission vehicles and encourage people to use active and public transport
- Maximise the opportunities to manage open spaces such as road verges to reduce surface water flooding and run off.
- In the urban environment consider where hard landscaping can be reduced where possible, for instance, resist front gardens being turned into car parks.

Biodiversity and the Green Space Network

Objective
Improve accessibility to open spaces and contribute towards the development of the green space network through implementation of core paths and appropriate mitigation as part of transport scheme delivery

Under the Nature Conservation (Scotland) Act 2004, Aberdeen City Council has a statutory duty to further biodiversity in exercising its functions. Transport can have an impact on biodiversity in a number of ways, with transport corridors and bridges causing habitat fragmentation and severance for a wide variety of wildlife. Avoiding construction on sensitive

habitats and providing escape routes to wildlife by creating tunnels and wildlife corridors help reduce the impacts.

As part of the aim of furthering biodiversity through this LTS, maintenance methods will be managed in order that they do not destroy or disturb these habitats. The Council encourages the adoption of measures to manage all adopted road verges in a way that maintains, establishes or manages verges for habitat and species enhancement.

Roads can often sever or act as barriers between otherwise contiguous areas of value to biodiversity. In taking forward any transport infrastructure works as part of this LTS, efforts will be taken to ensure that existing wildlife linkages / corridors are maintained, or new ones created. More generally, mitigation measures will be considered for all transport improvement works that could have an adverse impact on biodiversity.

The disposal of surface water from roads can, in some circumstances, cause flooding and pollution to water bodies and land contamination to adjoining areas.. The Council will continue to implement Sustainable Urban Drainage Systems (SUDS), as appropriate, as part of road improvement schemes and, where necessary, SUDS will be incorporated into existing road layouts to mitigate against the contamination or pollution of land, water courses, habitats and species lying adjacent to roads.

Improving access to open spaces and natural green spaces is another issue that measures set out in this LTS will aim to address. Aberdeen City Green Space Network (GSN) enhances, improves and links various habitats and species. The GSN takes into account the Core Paths Plan for the City to enhance access to the City's landscape, countryside and wildlife, while at the same time providing opportunities for healthy recreation.

Actions:

- Taking opportunities to improve and create new habitats as part of improvement schemes
- Changes to transport infrastructure should respect the character of all landscapes and conserve and enhance the best;
- Transport should contribute to sustainability by underpinning high quality spatial development;
- People should be able to travel around by low impact modes such as walking and cycling;
- Reducing the need to travel, by improving access to local services and green space and making the most of existing transport networks;
- Reducing the negative effects of transport as far as possible by including in any plans measures to protect wildlife, habitats and landscapes.
- The revised LTS will address these issues by working closely with other policy/strategy areas and contribute towards delivering actions proposed in different strategies such as open space strategy, nature conservation strategy and proposed woodland strategy along with the actions suggested in the LTS.
- Encourage the removal of unnecessary hardstanding structures and replace it with soft material where appropriate
- Maximise the opportunities to integrate ecosystem services into planning and development of road infrastructure

Summary

This section has outlined the Council's approach to sustainable development and travel, with various policies and actions designed to raise awareness on the importance of travel behaviour change and encourage the adoption of more sustainable modes.

6.5 Improvements

Introduction

Within this section, interventions designed to add to or improve our existing transport infrastructure and services are detailed. The Council strives for continuous improvement of the services it provides. In this context, improvement indicates an enhancement to an existing piece of infrastructure or service.

Walking

Objective

To increase the number of people walking, both as a means of travel and for recreation, in recognition of the significant health and environmental benefits it can bring to our citizens.

Walking is a healthy, sustainable and low cost form of transport, ranked at the top of the national transport mode hierarchy.

Recent Scottish Household Survey (2012) results show that 36% of respondents in Aberdeen had not walked for more than a quarter of a mile as a means of transport (e.g. for travelling to work or shopping) in the previous seven days. Levels of walking for pleasure or keep fit are even lower, with 55% of respondents stating that they had not walked at all for recreational purposes during the previous seven days.

Obesity levels are rising throughout Scotland, and most people are not achieving their recommended levels of physical activity, which is currently 30 minutes of moderate intensity activity per day on most days of the week for adults and an hour for children. Walking is, for most people, an easy way to reach these targets, requiring neither serious exertion nor specialised equipment.

As well as the health benefits, there are clear social and environmental benefits to be gained from encouraging a shift from vehicular transport to walking, while a greater pedestrian presence has been shown to boost economic activity in neighbourhood centres and city centres and to play an important part in urban regeneration and revitalisation.

As part of urban realm improvements the Council is developing a 25 year masterplan for the City Centre. This is exploring areas where the highest concentration of all-day pedestrian activity is taking place and considering whether partial pedestrianisation, footway widening or simply measures to increase the attractiveness of the pedestrian environment for shoppers and visitors to enjoy are developed. Improvements to the pedestrian environment, particularly safety interventions, and raising awareness of the health benefits of active travel will be key to encouraging more people to walk in the City for recreation, utility and commuting trips.

A wayfinding scheme, informing pedestrians of points of interest and walking times to venues in the City Centre, has been developed and piloted in 2014. Subject to the success of the pilot, this could be installed throughout the CC.

Actions:

- Consider additional traffic management and traffic calming to encourage walkable neighbourhoods and prevent community severance from rat-running and improving local conditions
- Increase the attractiveness of walking by improving and increasing pedestrian facilities, including improved maintenance of existing footways, lighting, development of new off-road footpaths, and implementation of pedestrianised or part-pedestrianised areas.
- Continue to improve, expand and promote the City's Core Path network.
- Continue to install traffic calming schemes and pedestrian crossing facilities where required to improve pedestrian safety and to implement traffic islands where they can improve pedestrian crossing opportunities and/or reduce traffic speeds in residential areas.
- Continue to raise awareness of the health benefits of active travel.
- Contribute to the development of the National Walking Strategy.
- Contribute to the development of a Regional Active Travel Action Plan (AcTrAP).
- Monitor the pilot Wayfinding Scheme and consider additional areas for rollout

Cycling

Objective
To improve conditions for cycling in Aberdeen and engender a culture change so that cycling becomes an everyday, safe mode of transport for all.

Like walking, cycling is a cheap, healthy and non-polluting form of transport, providing a quick and hassle-free means of undertaking short trips within the City. There are numerous examples of cities where a 'cycling culture' has developed and where cycling is the first choice travel mode for a sizeable proportion of the population. Not only does this make a useful contribution to reducing car traffic and congestion, it improves personal health and wellbeing and creates a safer and more pleasant urban environment for all.

The Council is committed to improving cycle facilities and infrastructure and works with various partners to deliver new and improved cycle routes, safety initiatives and traffic management measures. We have been successful in securing significant funding in recent years from Nestrans and Sustrans Scotland for implementing cycle routes on key corridors throughout Aberdeen and towards Aberdeenshire and for developing our pilot cycle demonstration project based in the Dubford area of Bridge of Don. These improvements have led to significant increases in cycling, although cycling mode share remains low compared with similar cities in the UK and Europe and Aberdeen is still some distance away from meeting the vision set out in the Cycling Action Plan for Scotland, that 10% of all trips will be undertaken by bicycle by 2020.

One of the main barriers to cycling is the perception that cycling is an unsafe activity. The Council is therefore committed to improving the safety of on-road cycling. Traffic management schemes are usually introduced to mitigate the adverse effects of motor traffic in some way (e.g. reducing rat running through residential streets, or reducing speeding).

There is often no reason to place the same restrictions on cyclists as other road users, so there will be a presumption of exempting cyclists from all traffic management restrictions. Where appropriate signalised junctions should be installed and where possible replace conventional roundabouts as there is a poor safety record on this type of junction for cyclists and they are inconvenient for pedestrians seeking to cross the road. Signalised junctions are also better for public transport priority.

Recognising, however, that some cyclists will never feel entirely comfortable cycling on-road, it will also be vital to improve our off-road infrastructure for cyclists in line with Cycling By Design's Link Specification Guide. It is occasionally necessary to make use of sections of footway for creating this network. The use of such facilities is not first preference as it can bring pedestrians and cyclists into conflict but an approach that balances safety, convenience, cost and impact on other road users will be applied.

The presence of conveniently located secure cycle parking at key destinations will also be vital to achieve our vision for cycling in Aberdeen.

Actions:

- In support of the Regional Active Travel Action Plan develop an updated Cycling Strategy with accompanying Action Plan, outlining in detail (including interventions, priorities and timescales) how the Council will improve conditions for cyclists in the City and engender a culture change in Aberdeen so that cycling becomes a natural transport choice for short journeys for all sectors of the population.
- Ensure that the needs of cyclists are prioritised during all new road construction and improvement schemes.
- Improve and increase on-road cycling facilities in the urban area, including facilities on all key corridors where this is safe and practical.
- Improve and increase off-road cycling facilities throughout the City, especially in areas of natural beauty and where the road conditions are such that everyday cyclists are deterred.
- Increase opportunities for recreational cycling by improving facilities in our parks and greenspaces.
- Implement measures to improve safety for cyclists, such as Advanced Stop Lines at junctions, toucan crossings of busy roads and priority measures for cyclists crossing side roads.
- Continue to work with partners on safety campaigns and projects, such as Give Me Cycle Space, to encourage drivers to behave safely and respectfully when sharing roadspace with cyclists.
- Ensure that all traffic management and road maintenance schemes incorporate measures for cyclists, such as cycle route diversions, one-way exemptions, contraflow cycle lanes, etc.
- Maximise opportunities for integrating cycling with other modes of transport by, for example, improving access to railway stations and Park and Ride sites and ensuring cycle parking facilities are available at these locations.
- Through the Transport Assessment and Travel Planning process, ensure that all new developments plan for cyclists and facilitate safe and direct cycle journeys to, from and within the development.
- Improve and increase the number of cycle parking facilities throughout the City especially in the City Centre, neighbourhood centres and at community facilities.

- Continue to support and assist with the Bikeability Scotland training scheme in schools and look at ways of rolling out cycle training to adults.

Bus

Objective
To increase public transport patronage by making bus travel an attractive option to all users and competitive with the car in terms of speed and cost.

Bus services are at the heart of delivering a sustainable, integrated and accessible transport system for the City. Key to achieving many of the outcomes of this LTS will be encouraging a significant transfer of private car trips onto public transport, especially commuting journeys, as buses re the most effective and efficient form of motorised transport. With nearly a third of households across Aberdeen without access to a car better access for all to buses will address social exclusion issues and ensure better accessibility to priority areas, such as health services. It is therefore important that bus services are available as an attractive and competitive option in terms of accessibility, journey time and cost. Furthermore, it is imperative that bus access to new developments is secured from day one of occupation to encourage sustainable travel patterns from the outset. Given the importance of bus services in the City, it will be important to identify if there are any gaps in provision of services.

Quality Partnership and Bus Punctuality Improvement Partnership

Aberdeen City Council sits on the Local Authority Bus Operators Forum (LABOF) with representatives of First Aberdeen, Stagecoach Bluebird, Aberdeenshire Council and Nestrans. The Forum works together to improve conditions for buses throughout the region, with all partners signed up to a voluntary Quality Partnership and a Bus Punctuality Improvement Partnership (BPIP).

Monitoring of the Quality Partnership standards and targets has shown that progress has been made in recent years in improving vehicle quality and accessibility, information provision and waiting facilities at bus stops. Punctuality has also improved but this has been at the expense of journey times with many services experiencing longer end to end journey times than they did five years ago. Most importantly, although the key indicator of bus patronage has seen some decline in recent years, there has been growth in the year to March 2014.

One option for enshrining commitments to improve bus services would be to enter into a Statutory Quality Partnership (SQP). This is a more robust agreement, with each signatory formally committing to an identified series of measures to improve the passenger experience on a defined corridor, with penalties imposed for non-compliance. Commitments could take the form of increased bus priority measures, traffic management or junction improvements, improved waiting facilities and increased information provision at bus stops, with bus operators assuring improved frequencies, fare guarantees and less polluting vehicles. Strides have been taken in relation to less polluting vehicles, with hybrid and hydrogen buses forming a component of both the First and Stagecoach fleet.

The efficient and effective operation of buses requires competitive bus journey times which are reliable and consistent. Working with partners in LABOF, the Council will develop proposals to ensure that bus journey times are improved and that punctuality and reliability of services can be maintained. Measures might include bus priorities in the form of bus lanes, traffic management, bus-only manoeuvres at junctions, revisiting operational hours of bus lanes or implementing road widening schemes to enable bus service improvements for the benefits of passengers.

Modelling has demonstrated that bus priorities can be implemented to provide significant benefits to bus users, without impacting unreasonably on other road users.

Park and Choose

The development of a network of Park and Choose sites across the North East, with accompanying bus priority measures, will make it easier to offer a more attractive Park and Choose service which contributes to an integrated transport system and, in doing so, reduces the number of car journeys into the City Centre, and the demand for space for car parking.

A new site, on the A96 at Chapelbrae, will be delivered as part of the works at Dyce Drive during the life of this LTS, while Aberdeenshire Council has recently granted Planning Permission in Principle for a site close to Portlethen south of the City on the A90.

In recognition of the fact that the existing sites do not always operate at an optimal level, efforts are being made to address this and hence increase usage. The long-term future of the Bridge of Don facility has now been secured at its current location and, as part of the redevelopment of the Aberdeen Exhibition and Conference Centre (AECC) site, options for improving the site will be investigated, including increasing capacity and improved access/egress. Work is also ongoing to improve access to and through the Kingswells site for buses, which will enable its use by through buses – improving the service options and operational characteristics of the site which may lead to increased services, capacity and possibly further competition.

Nestrans and the LABOF partners will undertake a study to consider the key requirements for a successful Park & Ride network in the north east, considering issues such as journey times and measures which could improve them, ticketing options, costs, routeings, etc.

Bus Lane Enforcement

From April 2013, the Council took over the enforcement of bus lane violations from the police service and has been issuing penalty notices to offenders. This has reduced the number of unauthorised users driving in bus lanes and has thus improved the flow of buses, reducing delays and improving punctuality and journey times. Any money generated from this has been going back into delivery Local Transport Strategy actions and priorities.

Information and Ticketing

The Council also recognises that improved information awareness and ticketing initiatives are key to encouraging an increase in bus use. The Aberdeen Bus Information Strategy was developed 2011 and outlines a range of measures that the Council and bus operators agreed to implement to improve the quality and availability of bus information in Aberdeen. The Council is also signed up to a regional Fares and Ticketing Strategy and continues to work with partners on a range of ‘smarter’ ticketing initiatives to improve the passenger

experience which has included the creation of a single operator ticket, the Grasshopper. However, there has been a lack of progress on national ticketing schemes which are necessary to lead the development of smart, integrated ticketing.

Actions:

- Continue to work with bus operators through the Health and Transport Action Plan to ensure health services are accessible by public transport
- Review provision of bus services to ensure existing services meet peoples' needs, and where necessary consider provision of supported services where these are deemed socially necessary
- Ensure all new developments are planned and designed with public transport access and penetration in mind.
- Require developers to engage with public transport providers from the beginning of the planning process to ensure that new sites can be served by public transport. Where services cannot be supplied commercially, require developers to provide these at their own cost until such time as they become commercially viable.
- Work with partners in LABOF to consider the potential of Statutory Quality Partnerships in securing enhanced services.
- Continue to work with LABOF to identify, implement and trial a range of schemes to better facilitate the movement of buses in the City, including priority measures and traffic management improvements, in line with Locking In the Benefits of the AWPR
- Continue to maintain, manage and improve bus stop infrastructure in line with Quality Partnership targets
- Encourage further adoption of low emission buses
- Construct a new Park and Choose site at on the A96 at Chapelbrae near Dyce and progress projects to improve the operation, and therefore usage, of all Park and Choose sites in the City.
- Support Aberdeenshire Council in the development of a Park and Ride site at Portlethen south of the City and ensure the effectiveness of services from the site to the City through, for example, bus priority measures to ensure competitive journey times, reliability, etc..
- Continue to enforce bus lane violations and look to increase the coverage of the scheme in recognition of the benefits it has brought in terms of the free flow of buses
- Work with operators to implement actions arising from the Bus Information Strategy to improve the availability and quality of bus information in Aberdeen.
- Work with partners to progress projects emanating from the regional Fares and Ticketing Strategy, especially those contributing to a simple and seamless payment process.

Rapid Transit

Objective
To investigate ways of maximising connectivity between new developments by public transport and encourage a step change in the perception and provision of public transport in Aberdeen.

The Aberdeen Local Development Plan 2012 sets the land use planning framework for Aberdeen City to 2030, releasing significant pockets of land for new development, predominantly greenfield housing and employment sites forming an orbital pattern around the City.

In order to continue to facilitate the growth of the City and to maximise and maintain the benefits of this investment into the longer term, substantial measures to encourage a modal shift to public transport are required. There is a danger that with continued growth of the City, and the region as a whole, traffic levels will continue to rise and without a major change in public transport provision the road network will come under increasing pressure.

In the Strategic Infrastructure Plan, the Council makes a commitment to investigate ways of maximising connectivity between new development areas, and will work with Nestrans to examine the feasibility of a rapid transit system serving the new developments on the outskirts of Aberdeen.

Actions:

- Work with Nestrans to undertake a study into future public transport options that will connect new housing developments with existing and future employment areas and other significant trip generators.

Powered Two Wheelers

Objective
To improve conditions for motorcyclists on Aberdeen's roads, particularly in terms of rider safety.

Motorcycles and other Powered Two Wheelers (PTWs) can play a significant role in maximising the efficient use of limited road space. In addition to providing the convenience of personal mobility, switching from car use to motorcycle use has the potential to reduce vehicle emissions and congestion as well as minimising the land required for parking provision.

A key concern in promoting the use of PTWs relates to rider safety. Accordingly, to reduce their accident involvement rate, the Council supports both engineering and non-engineering activities designed to improve the safety of riders, including efficient maintenance of our road networks, advanced motorcyclist training schemes and educational initiatives to raise awareness of rider vulnerability.

Operation Zenith, for example, is an initiative launched in 2010 with the aim of reducing motorcycle casualties on North East roads by adopting an innovative multi-agency approach to raising awareness of motorcycle safety. This has seen a steady reduction in the number of injury collisions involving motorcycles in Grampian, with the campaign looking set to reach its target of a 15% reduction since 2009. This is now being rolled out across Scotland following its success in engaging with motorcyclists in the North East. While 2014 was the

last year of the initial Operation Zenith campaign, partners are committed to continuing the campaign and are in discussions about what form it will take in the future.

The Council has, over the years, been encouraged to investigate the feasibility of allowing motorcyclists into bus lanes in Aberdeen. Officers' main concerns regarding this have been in relation to safety, particularly the increasing speeds of motorcyclists, motorcyclists moving from left to right through traffic on the driver's blind side, and the increase in pedal cyclists in the city and the consequent increased risk of collisions with motorcyclists when both users are travelling in the bus lane.

The Council is aware, however, of the recent trials that have taken place in London and Bristol, where some of the concerns raised did not seem to materialise, particularly with respect to the anticipated increase in collisions. We will therefore commit to a thorough review, in partnership with stakeholders, of the London and Bristol trials, looking in particular at the benefits and disbenefits experienced by all users and how the findings of this research could be applied to Aberdeen.

Actions:

- Implement road improvement and road safety schemes to increase the safety of motorcyclists on Aberdeen's roads.
- Continue to participate in initiatives such as Operation Zenith to raise awareness of motorcyclist safety.
- Ensure there is an adequate supply of motorcycle parking bays in areas where these are most needed.
- Undertake a review of trials that have taken place elsewhere in Britain where motorcyclists have been permitted to enter bus lanes to identify whether such an approach could be suitable for Aberdeen.

Road Improvements

Objective
To implement a programme of road improvement schemes to complement the AWPR in order to facilitate a restructuring of the roads hierarchy, minimising through traffic in the City Centre whilst reducing congestion, improving connectivity and addressing air quality concerns.

In its 2013/14 – 2017/18 Non-Housing Capital Programme of expenditure, the Council made allocations for a series of significant and long-proposed new road or road improvements schemes that will be delivered during the life of this LTS.

<u>Third Don Crossing</u>
2015 will see the opening of a new crossing of the River Don, linking the Bridge of Don with Tillydrone. The opening of a Third Don Crossing is predicted to provide significant journey time benefits between the Bridge of Don and the Central Aberdeen area, and will reduce traffic flows on the A947, the A90 at Persley Bridge and, most significantly, at the Bridge of Don on the A956.

Dyce Drive link Road

A new dual carriageway link road between the A96 and the Dyce Drive/ Argyll Road junction is due to open in 2015, although the connection to the A96 is currently subject to the AWPR contract programme. This will not only serve as an entrance and exit to the forthcoming Park and Ride site but, together with the Park and Ride, will also alleviate some of the severe congestion regularly experienced in this area.

Berryden Corridor

The Berryden corridor is a strategic route used both by traffic accessing or travelling through the City Centre and as a direct access route to a number of large retail developments along the corridor itself and has been identified as operating beyond capacity, leading to significant congestion and journey time delays. The full dualling of the route between the St. Machar Drive roundabout and Maberly Street is scheduled to commence construction in 2016.

South College Street

College Street is a strategic route into the City Centre with partial dualling. Options are being tested to address the capacity issues experienced at the most southern junction with Riverside Drive. A revised junction arrangement is expected to be delivered in 2016/17 with further traffic modeling is underway to confirm the final extent of this proposal, particularly in relation to other City Centre projects/priorities.

Wellington Road

Nestrans are currently undertaking a multi-modal transport study on the Wellington Road Corridor in the south of Aberdeen. The key objective is to generate and assess options which are consistent with the aims and objectives of a previous “locking in of benefits” study1 in relation to the Aberdeen Western Peripheral Route (AWPR) and which address current and future planned developments on this corridor, to be implemented alongside the completion of the AWPR in 2017.

Actions:

- Ensure the successful and timely completion of all new road and road improvement projects approved by the Council in the current Non-Housing Capital Programme.
- Continue to progress urban infrastructure projects aimed at removing pinch points throughout the City.
- Ensure that such projects prioritise the benefits delivered to sustainable modes of transport.

Intelligent Transport Systems (ITS)

Objective
To expand the use of ITS to manage traffic flow in order to improve the efficiency of the transport network in the City.

Intelligent Transport Systems (ITS) are a range of tools used for managing the road network, enabling road users to make better informed decisions regarding journey planning and generally enhancing the service provided to road users.

ITS encompasses a range of technologies and in Aberdeen includes: an Urban Traffic Control (UTS) system to monitor congestion and traffic flows; real time passenger information for when buses are arriving at certain locations; variable message signing to inform drivers of congestion ahead or availability of parking spaces; intelligent puffin and toucan crossings that automatically vary crossing times to suit the individual; and, CCTV at strategic interchanges and bus lane enforcement cameras.

The benefits of using ITS effectively include:

- Reducing congestion by the monitoring and prediction of traffic conditions, the coordination of traffic signals, the provision of bus priority measures and providing effectively for pedestrians and vulnerable road users;
- Encouraging the use of public transport by improving service reliability and service information to users;
- Reducing the effects of pollution from vehicles by better traffic management;
- Improving road safety by providing facilities for all including vulnerable road users and pedestrians;
- Assisting drivers select the most appropriate route to their destination by providing them with information regarding the conditions on the roads and information to change that route should a major incident occur; and
- Aiding the enforcement of traffic restrictions through the use of enforcement cameras and CCTV.

Aberdeen City Council has been investing in Journey Time Monitoring in order to link local and regional Variable Message Signs and provide vehicular journey times on major traffic routes. This will enable the Council to redirect traffic on the network if a situation arises. The intention is also to display the difference in journey time information between public transport and private vehicles at park and choose sites, thereby encouraging individuals to utilise public transport.

Smarter cities?

Actions:

- The Council will use Intelligent Transport System (ITS) technology to improve network efficiency and manage traffic flow through transport corridors
- The Council will further develop ITS to give priority to particular types of vehicles or road user, where appropriate.
- Provide reliable travel information to road users, so that they can make informed decisions before and during their journey.
- The Council will continue to explore opportunities to improve road safety and offer advice
- The Council will explore opportunities to update the travelling public on environmental conditions within the city centre
- The Council will further develop a Journey Time Monitoring System
- The Council will look to develop back office systems that mean all ITS systems will be connected through a common database.

Public Realm and the Sustainable Urban Mobility Plan (SUMP)

Objective

To improve the public realm by ensuring walkability and consequent traffic circulation (to enhance environment, aesthetic quality and air quality of the City) for the benefit of shoppers, visitors and residents

The visual and physical quality of the City has a considerable impact on travel patterns; attractive, open spaces free from traffic create pedestrian friendly environments that encourage walking and cycling. Heavily congested roads with high levels of air and noise pollution on the other hand mean journeys by foot or bike are significantly constrained. The way we plan our City is therefore of central importance if travel behaviour change is to be delivered.

In order to achieve this, the Council is currently working on a Sustainable Urban Mobility Plan for Aberdeen - a transport masterplan looking at the way people move around by different modes of transport. These include walking, cycling, bus, train, taxi, motorcycle, car, van and Heavy Goods Vehicle (HGV). This work is taking place alongside a City Centre Masterplan for which the

Actions:

- Adopt the transport elements of the City Centre Masterplan and SUMP currently being developed
- Increase the pedestrian experience in the core City Centre area and increase space for pedestrians
- Improve access to the City Centre
- Increase space for other uses (e.g. street cafes, events)
- Reduce the detrimental impact of motor vehicles on the City Centre environment

7. Delivery of the LTS

While a number of major projects have identified funding sources, delivery of other elements of this Strategy are dependent on available funding.

A variety of funding sources are available to the City Council, and the Council is currently exploring opportunities to secure additional funding for longer term transport projects through the City Deal.

As well as its own internal resources, the Council will aim to reinvest any increased funding from any transport revenue generators, such as car parking and bus lane enforcement income.

The City Council will pursue external funding, particularly given that many of the proposed actions will have positive benefits for many stakeholders. External funding bids will be pursued with public bodies such as Transport Scotland, the Regional Transport Partnership Nestrans, Sustrans and the European Union. In addition, opportunities to secure private sector funding and support will also be identified, particularly through the development management process to ensure that development sites contribute towards additional pressure on the transport network.

8. Monitoring

The Council recognises that having a robust monitoring regime is central to ensuring that the success of the Local Transport Strategy can be measured.

A set of performance indicators linked to the outcomes and objectives have therefore been developed to allow monitoring and evaluation of the Transport Strategy to be undertaken following implementation. Alongside this will be monitoring the delivery of particular interventions ensuring that Implementation Plan is being delivered.

The following indicators will be used to measure our progress between 2015 and 2020.

Measuring the Outcomes:

A. Increased modal share for public transport and active travel

- Employed adults not working from home, resident in Aberdeen City, usual method of travel to work by public transport and active travel
- Pupil's in full time education at school – usual main method of travel to school by active and public transport
- Number of passengers using Park & Choose sites

B. Reduced the need to travel and reducing dependence on the private car

- Employed adults working from home, resident in Aberdeen City
- Employed adults not working from home, resident in Aberdeen City, usual method of travel to work by private car
- Car Club membership numbers

C. Improved journey time reliability for all modes

- Journey time variability by public transport
- Journey time variability by private car
- Average time lost per vehicle kilometre on trunk roads in Aberdeen

D. Improved road safety within the City

- Percentage of the carriageway considered for maintenance treatment
- Monitoring of road traffic casualty statistics: killed/ seriously injured, children killed or seriously injured and slight casualty rate.

E. Improved air quality and the environment

- Exceedences of PM10s and NOx
- Number of Air Quality Management Areas
- Carbon dioxide emissions from road transport

F. Improved accessibility to transport for all

- Monitoring of public transport times and public transport cost between regeneration areas to key destinations
- Cost of public transport and cost of car parking
- Views on the convenience of public transport

G. Promoted a higher quality of life

9. Implementation and Action Plan

The AWPR offers a unique opportunity to reorganise the City's road network in order to capitalise on, or 'lock-in' the benefits of the new road capacity created. Much of this implementation plan therefore focuses on the main actions required to deliver this to ensure that the network

Appendix A: Background Policy Review

European Policy

European Noise Directive

The EU's Environmental Noise Directive (END) requires member states to consider noise from road, rail and air traffic and from industrial noise in agglomerations. The main objectives of the Directive are:

- To determine the noise exposure of the population through noise mapping;
- To make information available on environmental noise to the public;
- To establish Action Plans based on the mapping results, to reduce levels where necessary and to preserve environmental noise quality where it is good.

Aberdeen City Council is responsible for the identification of Candidate Noise Management Areas (CNMs) that should be taken forward as Noise Management Areas (NMAs) and the subsequent development of a Noise Action Plan. The Council is also required to include Candidate Quiet Areas (CQAs) of quiet and tranquillity in urban settings that provide a range of benefits to health and wellbeing. Changes should not happen within, and to a certain extent outwith, the quiet area that will result in an increase in the noise level or a reduction in the size of the quiet area. The Scottish Government has indicated it expects councils to link transportation noise management to other key policies measures including Local Transport Strategies.

Air Quality

Aberdeen currently has three Air Quality Management Areas (AQMAs): the City Centre, Anderson Drive and Wellington Road. These locations have been identified as unlikely to meet national objectives and European limits for air quality for nitrogen dioxide and particulates emissions. The EU recently refused an application from the UK for an extension to the timescale for compliance with air quality targets which could mean that financial penalties and imposed actions result in the future.

Transport is currently responsible for up to 90% of air quality problems on some corridors in Aberdeen and is one of the highest contributors to greenhouse gas emissions. The Council developed an Air Quality Action Plan in 2011 which sets out the measures that will be taken to improve air quality. Poor air quality has significant implications for the health and wellbeing of citizens.

National Policy

Smarter, Greener, Fairer, Stronger?

Strategic Transport Projects Review (STPR)

The STPR identifies interventions to be designed, developed or delivered between 2012-2032. The projects look to: maintain and safely operate existing assets, make better use of existing capacity and deliver targeted infrastructure improvements. For Aberdeen City the

STPR commits to a number of north east projects for which the following are specifically within the City:

- *AWPR*
- *Haudagain*
- *Aberdeen to Inverness rail improvements*
- *A96 Park and Ride*

Single Outcome Agreement

The adoption of the Single Outcome Agreement (SOA) in July 2009 heralded a change in the way Councils work with National Government to identify the outcomes they want to achieve for their areas and how they will use their resources to deliver those outcomes. Transport influences all but one of the fifteen national outcomes and as actions require to be reprioritised to deliver these outcomes, this needs to be reflected in investment in transport. The Council currently has six key priorities of: economic growth, safer communities, learning & workforce, older people, children & young people and health & well-being of which integrated transport, as a multi-lateral priority for the City, impacts on each. This LTS will therefore require to demonstrate how it is delivering the community planning priorities.

Cycling Action Plan for Scotland

The Scottish Government published its Cycling Action Plan for Scotland (CAPS) in June 2010, and an update in 2013, which sets a vision for 10% of all trips in Scotland to be by bicycle by 2020. Achieving this target will necessitate a significant change in travel behaviour, prioritisation and investment across Aberdeen City in the coming years.

National Walking Strategy

The Scottish Government has a vision that everyone in Scotland benefits from walking as part of their everyday journeys, enjoys walking in the outdoors and where places are well designed to encourage walking. The Walking Strategy sets three strategic aims:

- *Create a culture of walking where everyone walks more often as part of their everyday travel and for recreation and well-being;*
- *Better quality walking environments with attractive, well designed and managed built and natural spaces for everyone; and*
- *Enable easy, convenient and safe independent mobility for everyone.*

Although the Strategy does not specify particular actions for Aberdeen, the aims are something that Aberdeen should deliver reflect and contribute to as part of the LTS.

National Planning Framework (NPF) 3

NPF3 sets out the Scottish Government's development priorities for the next twenty to thirty years, identifying fourteen national developments which support the development strategy. Two of the national developments identified in NPF3 are directly relevant to Aberdeen: Aberdeen Harbour extension at Nigg Bay and strategic enhancements to Aberdeen Airport. In addition, NPF3 identifies a further four national developments that cover the whole of Scotland: Carbon Capture and Storage Network and Thermal Generation; High Voltage Electricity Transmission Network; Pumped Hyroelectric Storage; and a National Long Distance Cycling and Walking Network.

National developments will be delivered by a range of organisations, both public and private sector, and inclusion in NPF3 does not imply funding on the part of the Scottish Government or its agencies. However, the document does state that priorities identified in NPF3 will be taken into account by the Government when future spending programmes are developed or reviewed.

Infrastructure Investment Plan (IIP)

Published in 2011, the IIP provides an overview of the Scottish Government's plans for investment over the next decade, setting out the key requirements for each sector. For transport, the IIP builds on the projects identified in the STPR and includes renewed commitment for the AWPR as well as new longer term projects such as the dualling of the A96 from Aberdeen to Inverness. It also reaffirms the need to improve rail infrastructure between Aberdeen and Inverness and between Aberdeen and the Central Belt.

Scottish Government Economic Strategy

Published in 2011, this recognises that an efficient transport system is key to enhancing productivity and delivering sustainable growth. The Strategy identifies six priorities to accelerate economic recovery, drive sustainable economic growth and develop a more resilient and adaptable economy, and transition to a low carbon economy is an essential element within all of these.

Scotland's Cities: Delivering for Scotland

Launched in 2011, this sets a vision for *a Scotland where our cities and their regions power Scotland's economy for the benefit of all*. It recognises that good connectivity within and between cities and their regions is key and the importance of international connections via air and high speed rail. Specific reference is made to the importance of inter-urban connectivity across road and rail resulting in better travel choices and improved journey times, particularly a reduction in journey times between Aberdeen and Inverness and Aberdeen and the Central Belt. The importance of low carbon transport, utilising new technologies and intelligent transport systems, is also highlighted.

Climate Change legislation and Guidance

The Climate Change (Scotland) Act 2009 sets targets for a reduction in greenhouse gas emissions in Scotland of 42% by 2020 and 80% by 2050. While other sectors have seen a reduction in emissions from the baseline year of 1990, transport emissions (including international aviation and shipping) have continued to rise. Meeting the targets set out in the Act will therefore require a significant contribution from the transport sector, which currently accounts for about 26% of total Scottish carbon emissions. One of the outcomes identified in the Act is a*lmost complete decarbonisation of road transport by 2050 with significant progress by 2030 through wholesale adoption of electric cars and vans, and significant decarbonisation of rail by 2050.*

The Climate Change Delivery Plan sets out the high level measures required to meet the targets set out in the Act, a number of which affect the transport sector including:

- *Improvements in energy efficiency of petrol and diesel vehicles and increasing uptake of hybrid and electric engines with supporting infrastructure;*
- *Smarter measures including reduced travel and modal shift to less carbon-intensive modes of transport such as public transport and active travel;*
- *Demand management including road space reallocation;*
- *Changes to the pattern of development to reduce the need to travel; and*
- *Sustainable bio-fuels.*

Designing Streets and the National Roads Development Guidance

Designing Streets encourages an improvement in the quality of urban street design, stressing that this should derive from an intelligent response to location, rather than the rigid application of standards. This means that in Aberdeen an appropriate balance should be struck between the needs of different user groups and capacity for all vehicle movements will not always be the primary consideration in designing individual roads and road layout. However, it is recognised many journeys will still require to be made via vehicular traffic (including buses). As the movement of goods and services is paramount to sustaining and growing a successful economy, the consideration of freight movement also remains vital on strategic routes.

The National Roads Development Guidance produced by the Society for Chief Officers of Transport in Scotland (SCOTS) follows the same principles introduced in Designing Streets with a change in policy to move away from a standards-based approach to one where designers, planners and roads engineers collaborate to develop a design-led solution.

As well being applied in the planning of infrastructure for new developments both of these documents are essential in redetermining how the City's network of streets should be used when the AWPR and other major road infrastructure is built.

Switched on Scotland: A Roadmap to Widespread Adoption of Plug-in Vehicles
Preventing Overweight and Obesity: A Route Map Towards Healthy Weight

Scottish Planning Policy (SPP) – The Scottish Government

The purpose of SPP is to identify how land use planning matters should be addressed across the country, setting out national policies which reflect Scottish Ministers' priorities for the planning system and the development and use of land. The national planning policy also states that local authorities should ensure that their LTS and Development Plan are complementary and consistent.

Four outcomes are introduced which support the vision and goals of SPP and all are directly impacted by transport and the LTS:

- A successful, sustainable place – supporting sustainable economic growth and regeneration, and the creation of well-designed, sustainable places. This will be supported through allocating the right development in the right places, providing opportunities for sustainable growth. A strong emphasis is to be placed on high-quality sustainable developments and strong, resilient and inclusive communities.
- A low carbon place – reducing our carbon emissions and adapting to climate change.

Mitigation and adaption opportunities should be seized in support of the targets set out in the Climate Change (Scotland) 2009 Act.

- A natural, resilient place – helping to protect and enhance our natural and cultural assets, and facilitating their sustainable use. This should be supported through the protection, sustainable use and building resilience within our world-class environment.
- A more connected place – supporting better transport and digital connectivity. This should be supported through aligning development with transport and digital infrastructure.

SPP also emphasises the promotion of sustainable transport and active travel with the development of active travel networks, inclusion of electric vehicles and implementation of maximum parking standards.

Scotland's Road Safety Framework to 2020

The Scottish Government sets a vision to reduce the injury rate and the number of people killed on Scotland's roads and out a series of commitments required to achieve this. Aberdeen City Council is responsible for road safety on the local network and has a statutory duty to deliver road safety education and provision of a safe network. This includes via road construction, accident investigation and analysis, traffic calming, setting speed limits and facilities for pedestrians and cyclists.

Regional Policy

Strategic Development Plan (SDP) and the Aberdeen Local Development Plan 2012

One of the more significant regional policies affecting the LTS is the Aberdeen City and Shire Strategic Development Plan. Published first in August 2009 and refreshed in 2014 it presents a spatial strategy for the region, identifying three strategic growth areas which will comprise the main focus of future development, one of which is Aberdeen City. It proposes to significantly increase the region's population to 480,000 by 2030 and 500,000 by 2035. In order to accommodate this level of growth, the SDP Main Issues Report (MIR) sets out a proposed housing allowance of over 67,000 homes across the region between 2011 and 2035.

More than 27,000 new homes are required in Aberdeen by 2030, along with 196 hectares of employment land. The Aberdeen Local Development Plan (ALDP) was adopted in 2012 and sets out where this growth is likely to take place in the City to 2030 and the policies by which this will be guided. The planned growth in population and number of households will have a significant impact on the transport network as the number and pattern of trips increases and changes.

In order to fully understand the impact of this planned level of growth on the transport network, Nestrans and the SDPA commissioned MVA Consultancy to undertake an appraisal of the Local Development Plans of Aberdeen City Council and Aberdeenshire Council and to consider the planned changes in land use and the cumulative transport impacts associated with the scale and distribution of development proposals. This predicted, by 2023, compared to 2010 conditions:

- A 20% rise in daily car trips;
- A 10% rise in daily public transport trips;
- A greater than 30% increase in annual vehicle kilometres;
- A greater than 15% increase in annual carbon emissions; and
- A small decrease in region-wide time lost due to congestion per kilometre travelled.

The study also identified how development could impact on the operation of key areas of the road and public transport network including the A90 south, A956, Bridge of Dee, A944, Lang Stracht, Haudagain Roundabout, 3rd Don Crossing, Bridge of Don, A96 and A947. Results show that at many locations, congestion levels are predicted to be in excess of present conditions, including sections of the A90 South corridor, the A96 and A944.

This appraisal enabled, for the first time, a strategic overview of the transport implications of the proposals outlined in the Structure Plan and LDPs to be taken. This led to the development of non-statutory supplementary guidance, *Delivering identified projects through a Strategic Transport Fund (STF)* which sets out a mechanism for mitigating the cumulative impact of development on the strategic transport network through a consistent and transparent methodology using developer contributions.

A package of interventions has therefore been identified and tested, over and above already committed transport schemes such as the AWPR, Haudagain Roundabout improvements, Park and Choose sites and Union Street pedestrianisation. These include both road and public transport projects in a variety of locations where the impact of new development is predicted to increase congestion:

<u>Road Network</u>

- North Aberdeen - Parkway, Persley Bridge and Parkhill junction and capacity improvements.
- A96 Corridor - capacity improvements and upgrade of AWPR Kingswells North junction.
- A944 Corridor - upgrade to A944 junctions and safety / limited capacity improvements on access to A93.
- A956 / A90 corridor – junction capacity improvements and River Dee link.

<u>Public Transport</u>

- New rail station at Kintore.
- Bus priority measures.
- Bus frequency improvements.
- Additional bus services linking new development sites to the City Centre and other key employment destinations.
-

Such interventions will be key to enabling future development on the scale anticipated and the STF will therefore be a significant source of income for the delivery of transport projects.

Energetica

Energetica is a public-private project aiming to preserve Aberdeen City and Shire as a global energy hub. It looks to create a concentration of energy technology companies, housing and leisure facilities along a 30-mile corridor from Aberdeen to Peterhead. Transport and connectivity will be key to the success of this. To fit with the aims and objectives of

Energetica, the corridor has been earmarked as an exemplar sustainable transport corridor and officers within the City and Shire Councils are currently working together on identifying gaps in the active travel network along and around this corridor and measures that will be required in the coming years to deliver the Energetica vision.

All modes study

Local Policy

Aberdeen – The Smarter City

A new policy statement for Aberdeen, *Aberdeen – The Smarter City*, sets a vision for Aberdeen as an ambitious, achieving, smart City. One of the administration's high-level priorities is 'Smarter Mobility' with the following commitments outlined in the document: *We will develop, maintain and promote road, rail, ferry and air links from the city to the UK and the rest of the world. We will encourage cycling and walking*, and *We will provide and promote a sustainable transport system, including cycling, which reduces our carbon emissions, as well as to maximising digital connectivity*. The document also contains a commitment to improving the City Centre transport infrastructure, including enhanced pedestrianisation priority.

Aberdeen Strategic Infrastructure Plan

The Strategic Infrastructure Plan focuses on the development of the enabling infrastructure needed to realise the city's aspirations. It i3dentifies the key planned projects to deliver the infrastructure to enable growth, identifies the main areas where there are deficiencies in relation to the city's needs and the actions to be taken to address the gaps in both the shorter and longer term. Transport and Connectivity was seen as one of the main barriers to growth in relation to both short and long term priorities.

City Centre Development Framework 2011, emerging City Centre Masterplan (CCMP) and Sustainable Urban Mobility Plan (SUMP)

The Development Framework promotes a strategy to complement and enhance the features of the City Centre that make Aberdeen unique. By developing clearly defined character areas, reinforcing their identity and ensuring their accessibility and connectivity, the Framework will ensure that the right projects will be developed in the right places and in appropriate ways to ensure the social, economic and environmental futures of the City Centre will thrive.

Following on from the City Centre Development Framework are two key pieces of work: a City Centre Masterplan (CCMP) and a Sustainable Urban Mobility Plan (SUMP). Both are to be produced by June 2015. The CCMP will provide a visionary, integrated and coherent template for the sustainable development of the city centre, informed by a robust appraisal of the city centre's economy and its main property and development markets to form the basis of an assessment of Aberdeen's economic growth prospects and targets over 20 years. The vision will define what the city needs to meet its aspirations and ambitions.

The SUMP complements the Masterplan by looking at the way people move around and access the City Centre. With a focus on connectivity and movement (rather that traffic flow)

the Plan will consider walking, cycling, bus, train, taxi, motorcycles, cars, vans and Heavy Goods Vehicles (HGV). Aberdeen's SUMP is designed to enhance and further develop the transport themes in the City Centre Development Framework; provide a guide to how transport connections will develop over the next 25 years; and ensure integration with the City Centre Masterplan to deliver its vision, aims and objectives.

Aberdeen Core Path Plan

The aim of Aberdeen City Council's Core Path Plan is to ensure that key routes are recorded and access is promoted throughout the area by foot, bicycle, horse or any other non-motorised means. There are key policy linkages between the LTS and Core Path Plan through the promotion and delivery of key infrastructure that encourages active travel in and around Aberdeen City.

For consideration?
, particularly the Aberdeen Local Development Plan, the Council's wider aims as set out in the Single Outcome Agreement, the Strategic Development Plan, Economic and Business Development Plan and the Economic Action Plan for Aberdeen City and Shire.Switched On Scotland – EV Roadmap

- What about other Council policies? Can put these in a diagram??
- Scottish Planning Policy Town Centre Action Plan
- Updated Scottish Planning Policy Nestrans Freight Action Plan ACSEF Economic Action Plan for Aberdeen City and Shire We also think that the LTS should take into consideration the Aberdeenshire Development Plan
- Local neighborhood plans!!
- Bus Information Strategy?
- North east casualty reduction strategy?
- Health and Transport Action Plan Refresh? Do we have a local Aberdeen road safety plan anymore?
- Anything from Chris Cormack?

Local Climate Impacts Profile Report (LCLIP) for Aberdeen
The LCLIP presents findings and recommendations following an investigation of how extreme weather affects Aberdeen and how the Council can be better prepared to manage extreme weather in the future. The report identifies that the area most affected from extreme weather and other climate related impacts was transport; damage to infrastructure such as roads, railways and networks occurred more frequently than any other impact in Aberdeen City from 2008-13. This demonstrates that the transport network needs to become more resilient and the Council will need to adapt to cope with increasing changes to weather in the future.

Other Local Strategies and Plans

In developing this LTS we have sought to ensure that it also supports local and regional economic, environmental, community and social policies and plans of the Council and its Partners. Figure x above outlines the main local strategies and plans that this LTS links to and supports. Appendix x expands upon this by presenting a policy review of the key documents that the LTS supports.

Aberdeen City Council recognises that the effective delivery of this LTS will be dependent on close working and cooperation with a wide range of stakeholders. The way that the LTS connects with the NTS, RTS and the range of regional and national policy and guidance frameworks will be instrumental in ensuring the achievement of the vision set out in this LTS. In turn, the effective delivery of this LTS will support a range of national and regional strategies as well as other internal strategies.

Fit for the Future

A Summary of the Key Transport Implications of the Policy Context

- The key policy themes related to transport across national, regional and local strategies focus on reducing the environmental impact transport creates, the associated issues surrounding the high number of private cars (particularly single occupant cars) on the road network including congestion, journey time and the need to use transport as a lever for economic growth, promote social inclusion, improve integration and develop better places and communities to live, work and spend leisure time in;
- The LTS recognises that Aberdeen City Council's transport polices and objectives should have a strong relationship with the national and regional transport strategies
- It is important that there is a clear link between Aberdeen City Council's LTS, City Centre Masterplan and Local Development Plan in developing an attractive environment for people to live, work and spend leisure time in the area

Appendix B: Performance of the Previous LTS

Since 2008, a number of the specific schemes and projects committed to in the previous LTS have been implemented in Aberdeen. These include:

- Improvements to pedestrian and cycle infrastructure throughout the City, including incremental improvements to the Deeside Way and Formartine and Buchan Way long-distance routes and new facilities on key commuting corridors such as the A96;
- Development of Aberdeen's first cycle demonstration neighborhood based around Greenbrae School in Bridge of Don;
- Formation of the Getabout partnership for co-ordinated smarter choices awareness-raising campaigns, events and promotions throughout the North East;
- Development of a new public transport (bus/rail) interchange at Union Square;
- Launch of a revised Quality Partnership for Public Transport and a Bus Punctuality Improvement Partnership;
- Increased bus priority measures in the City Centre;
- Improvements to information provided at bus stops throughout the City;
- Implementation of a shuttle bus between Dyce Station and the Airport;
- Decriminilisation of bus lane violations leading to improved enforcement;
- Development of a safe Night Time Transport Zone in the City Centre;
- Implementation of the Aberdeen Car Club;
- Development of a network of electric vehicle charging points across the City; and
- Revised parking policies, including new maximum standards included in the Aberdeen Local Development Plan 2012.

Analysis has also been undertaken of the progress made in delivering the actions and targets articulated in the 2008-2012 LTS. The main points to be noted are, however, summarised below.

Progress Against Key Performance Indicators 2008-2012

Six key performance indicators were identified as providing the most reliable measure of success or otherwise in meeting the vision and aims of the 2008-2012 LTS. A brief description of each indicator follows, with a commentary on the Council's progress towards meeting each of these.

<u>Usual method of travel to work of employed adults (16+), not working from home, resident in Aberdeen City</u>.
Target - By 2012, it is hoped that the percentage of employed adults living in Aberdeen, driving to work in either a car of a van is reduced by at least 5% compared to the average between 2001/2 and 2005/6.
Source – Scottish Household Survey (SHS)
Progress – Figures show that driving to work levels fell to 54.5% in 2012 from a 59% baseline, a reduction of 7.6%. This suggests the target has been achieved, and in fact exceeded for this time frame.

<u>Pupils in full-time education at school – usual main method of travel to school</u>.
Target - By 2012, it is hoped that the percentage of pupils driven to school is reduced by at least 10%, compared to 2007 baseline.

Sources – Hands Up Scotland Survey
Progress – The percentage of children being driven to school decreased from 22% to 20% between 2007 and 2012, a reduction of 9% therefore this target has just fallen short of being fully met, and is certainly moving in the right direction.

Traffic levels (mill veh km) on local and trunk roads in Aberdeen City Council area.
Target - Success will firstly be demonstrated by a reduction in rates of local traffic growth, and by a stabilisation of traffic levels on local roads.
Source – Scottish Transport Statistics
Progress - There was a steady decrease in vehicle kilometres on all roads between 2007 and 2011. However, vehicle kilometres have been increasing again on trunk roads since 2009, and saw an increase again in all roads between 2011 and 2012, but levels have yet to return to the highs of 2007. This target has therefore been partially met.

Monitoring of road traffic casualty statistics for the Aberdeen City Council area, specifically: killed/seriously injured (KSI), children KSI and slight casualty rate.
Targets - The targets for this indicator are compared to the average for 1994-98 and are to achieve:

- a 40% reduction in the number of people killed or seriously injured in road accidents;
- a 50% reduction in the number of children killed or seriously injured; and
- a 10% reduction in the slight casualty rate, expressed as the number of people slightly injured per 100 million vehicle kilometres.

Source – Reported Road Casualties Scotland
Progress - By 2012, compared with the average for 1994-98, Aberdeen saw:

- a 4.5% increase in the number of people killed or seriously injured;
- a 31.2% increase in the number of children killed and seriously injured; and
- a 46.2% reduction in the slight casualty rate.

ACC is therefore failing to meet the KSI targets, although the target for a reduction in the slight casualty rate has been significantly exceeded.

Petrol and Diesel consumption of road vehicles driven within the boundaries of Aberdeen City and the associated amount of CO_2 production
Target - There is a statutory target to reduce Scottish emissions by 80% by 2050 which requires a 3% per annum reduction in carbon dioxide.
Sources – Scottish Transport Statistics
Progress – The volume of fuel consumed in Aberdeen has fallen steadily since 2008. Average CO2 consumption has on average fallen by more than 3% per annum therefore this target is on course to be met.

Adults (16+) – percentage of adults who walked / cycled at least quarter of a mile, at least one day in the previous 7 days
Target - By 2012, it is hoped that the percentage of adults walking for transport at least one day in the previous week is increased by at least 10% compared to the 2005/06 baseline. By 2012, it is hoped that the percentage of adults cycling for transport at least one day in the previous week is increased by at least 20% compared to the average between 1999 and 2006.
Source - SHS

Progress – The walking target has been met and in fact exceeded. Difficulties have been met gathering the data for cycling, although cycle to work levels suggest that this target has not been achieved.

It can be seen that progress has been mixed in meeting the key targets of the previous LTS. Traffic and accident reduction figures have not fallen to their desired levels so it is clear that further work needs to be done in these areas. Even where targets have been met (such as a reduction in driving and an increase in walking to work and a fall in consumption of petrol and diesel), efforts will have to continue to ensure that these figures remain at desirable levels or improve further in the future.

This LTS has therefore been developed in light of the progress made since 2008, and at the same time has also been based on an analysis of recent transport trends, summarised in the next section.

Key Trends

Modal Shift

The overarching aim of the LTS is to encourage modal shift from the private car to more sustainable and active modes of transport, particularly on the journey to work which places the biggest burden on the transport network. The LTS Monitoring Strategy stated that progress on this indicator would be measured primarily via Scottish Household Survey (SHS) results. SHS figures for the baseline year of 2007/8 and the final year of 2012 are therefore shown below.

	2007/8	**2012**
Walk	14%	20.6%
Car/van Driver	58%	54.5%
Car/van Passenger	6%	4.5%
Cycle	3.5%	2.9%
Bus	15%	14.1%
Rail	0.3%	1.3%
Other	3%	2.1%

Table 1: Travel to Work Modal Split in Aberdeen (Employed Adults 16+, not working from home), SHS

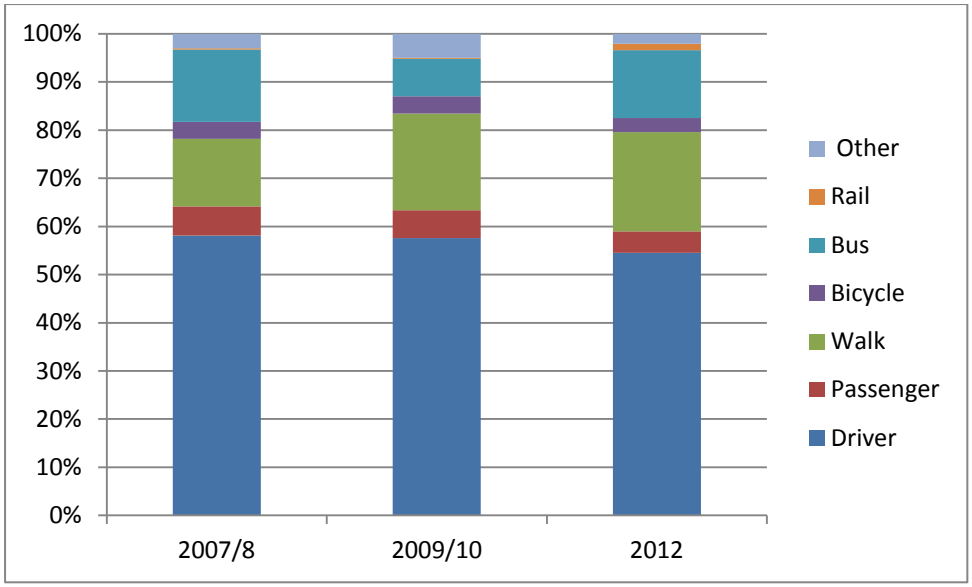


Figure 1: Travel to Work Modal Split in Aberdeen (Employed Adults 16+, not working from home), SHS

SHS data suggests, between 2007/8 and 2012:

- The proportion of people walking to work in Aberdeen has increased from 14% to 20.6%. Aberdeen's current walking rate exceeds the average for large urban areas in Scotland (16.9%) and compares favourably with the equivalent figure for Glasgow (13.1%), but less so with Edinburgh (26.7%).
- The proportion of the population driving to work alone has fallen from 58% to 54.5%. Despite this, Aberdeen's drive to work figures still exceed the average for large urban areas (51.2%), with the equivalent figures for Edinburgh and Glasgow 38.2% and 51.7% respectively. Passenger numbers have also fallen in Aberdeen, further signifying a drop in the overall proportion of the population commuting by car.
- Levels of cycling in Aberdeen have fallen slightly (from 3.5% to 2.9%) but are roughly in line with the average across urban areas (2.8%). Edinburgh has seen a similar decline in this period, although growth has been encountered in Glasgow. Both of these cities currently have higher levels of cycling than Aberdeen, with Glasgow at 3.1% and Edinburgh at 5.5%.
- There has been a slight decrease in bus use in Aberdeen over the period, from 15% to 14.1%. The current figure is slightly less than the average for large urban areas (15.9%) and less than both Edinburgh (23%) and Glasgow (15.3%).
- There has been a significant increase in rail use, although it is hard to compare Aberdeen with other Scottish cities, given the limited number of stations in the City and in the region as a whole.

Results from the National Census of 2011 are also useful in giving an indication of longer terms trends in travel to work, as shown in the table and graph below.

	2001	**2011**
Walk	15.2%	16.8%
Drive/taxi	57.7%	58.1%
Passenger	7%	5.7%
Cycle	1.8%	2%
Bus	14.2%	13.4%

Rail	0.5%	0.7%
Motorcycle	0.7%	0.5%
Other	3%	2.8%

Table 2: Aberdeen Travel to Work Statistics (16-74 year olds in employment, not working from home), National Census

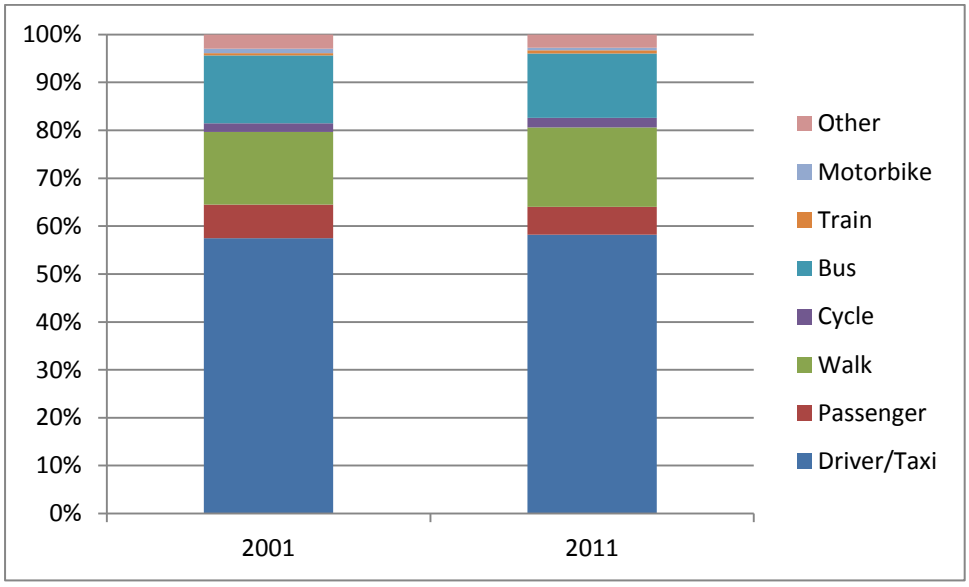


Figure 2: Aberdeen Travel to Work Statistics (16-74 year olds in employment, not working from home), National Census

Although at first glance, the majority of changes in mode share between 2001 and 2011 appear minor, the actual change in trip numbers has, in some cases, been significant.

As Aberdeen's population grew between 2001 and 2011, the number of additional work-based trips added to the network increased by 6.8% (6471 additional trips). In terms of the number of commuting trips undertaken, this has led to, between 2001 and 2011:

- a 55.7% increase in rail journeys;
- a 21.4% increase in cycling trips;
- a 18.1% increase in walking trips;
- a 7.6% increase in car trips (including van and taxi journeys); and
- a 0.8% increase in bus journeys.

	Commuting Trips 2001	**Commuting Trips 2011**	**Change in number of trips (2001-11)**	**Percentage Change (2001-11)**
Walk	14,365	16,962	+2597	+18.1%
Drive/taxi	54,614	58,746 (57713 excluding taxi)	+4132	+7.6%
Passenger	6598	5808	-790	-12%
Cycle	1662	2018	+356	+21.4%
Bus	13426	13530	+104	+0.78%
Rail	451	702	+251	+55.7%
Motorcycle	696	488	-208	-29.9%
Other	2843	2872	-29	+1%
Total	**94665**	**101126**	**+6461**	**+6.8%**

Table 3: Changes in the number of work-based trips, by mode, between 2001 and 2011, National Census

The SHS and Census figures disagree on certain points relating to modal split. Some possible reasons for this are:

- Disparity in sample size - 101,126 in the 2011 Census; 144 in the most recent SHS (2012) for travel to work figures;
- Differences in timescales – SHS figures replicated above cover the years 2007/8 and 2012, while Census results are for 2001 and 2011 (although SHS figures for drive to work mode share were the same in both 2001/2 and 2007/8); and
- The 2001 Census counted car, van and taxi trips together. Although car/van and taxi were separated out in 2011, they have been included together in the above figures for the consistency of monitoring.

Despite these disparities, the following broad conclusions can be drawn:

- More people are now engaging with active travel, particularly walking, than in 2001;
- Figures for cycling are more mixed, but the Census shows an unambiguous increase in cycling commuter trips between 2001 and 2011;
- Demand for public transport as a means of travel to work has increased since 2001. While bus use appears to have declined (or at least stagnated), rail journeys continue to grow;
- The popularity of motorcycling has declined; and
- The increase in demand for car travel has perhaps not been as significant as anticipated. 4132 extra car/van/taxi commuting trips were added to the network over ten years, according to Census figures, equating to 413 additional trips on average per year. Demand for active travel (295 extra trips a year on average) is not lagging far behind. In fact, in terms of percentage increase over the ten year period, demand for walking, cycling and rail use has increased at a greater rate (appreciating the very different baseline figures experienced by each mode) than has demand for car use.

Car Ownership

Aberdeen still has the highest number of cars per household of Scotland's principal cities, with 71.4% of households having access to at least one car. This has risen from 69.1% in 2007/8 (SHS). It is important, however, that this does not mask the fact that there are still almost a third of households in Aberdeen that do not have access to a car.

Car Use

Car usage in the City is also high, with 43% of residents using a car every day compared to an average of 33.3% in other large urban areas and 42% in Scotland as whole (SHS, 2012). This figure has declined since 2007/8, though, when 45.4% of residents used a car daily. Despite this, an overall decline in traffic levels by 6% was experienced in Aberdeen between 2008 and 2012 (STS).

Recognising Transport Trends across the Wider Region

Aberdeen serves as a significant regional centre, particularly for employment, retail, cultural and educational purposes. This means that the transport trends of neighbouring areas cannot be ignored when developing a Transport Strategy for the City, given the interdependencies of the City and its hinterland and this resultant impact on City traffic levels and the transport network. Aberdeen City Council and Aberdeenshire work collaboratively on

strategic transport issues through the Regional Transport Partnership, Nestrans. Census figures for 2001 (unfortunately 2011 transport data has yet to be produced) showed that more than a third of commuting trips from Aberdeenshire origins were to Aberdeen City destinations, a total of 36,690 trips every day. With 73% of employed adults in Aberdeenshire driving to work (2012), this clearly translates into a significant number of trips added to the City network at peak periods. As the regional hub, Aberdeen City also attracts a large proportion of retail and leisure trips from the hinterland. With 60% of Aberdeenshire residents driving every day and with Aberdeenshire having the third-highest rate of car ownership out of all Scotland's 32 local authority areas (83.4% of households with at least one car and more than half of these own more than one car), the burden on the City transport network becomes even more apparent. The lack of effective public transport alternatives and especially rail infrastructure, comparative cost of housing leading to people living further away from the city and the mainly rural nature of Aberdeenshire are all key factors influencing demand for car trips. Strengthening of policies that reflect and influence this demand from outwith the City therefore needs to be considered. This could involve increasing parking areas and charges in tandem with supported bus priority and services to ensure alternatives are attractive.

Views on Buses

Findings from the annual Bus Passenger Satisfaction Survey show that bus users in Aberdeen hold very positive views on areas such as the reliability, safety and comfort of buses, although opinions on value for money and frequency of services are slightly less positive. Nevertheless, all aspects of bus travel scored above 60% satisfaction in the most recent survey (2013), with 83% of passengers satisfied with the overall level of service experienced on their most recent bus trip.

Transport Costs

Cost comparisons of monthly bus tickets in each of Scotland's cities reveal that the cost in Aberdeen is considerably higher. For example a 4-weekly bus ticket in Aberdeen costs almost 40% more than the equivalent ticket in Glasgow in 2013. The cost of public transport has also risen higher than the cost of living, while the cost of motoring has decreased in real terms.

While the average cost of 3 hours of parking in the City Centre rose by 26% between 2008 and 2013, the cost of an off-peak all-day bus ticket rose by 52% in the same period.

Rail

While the North East rail network consists of a single line and just eight stations rather than a comprehensive network, commuting by rail has increased significantly over the life of the LTS. This is partly the result of improved timetabling, improved public transport services to and from Dyce Station and ongoing improvements to stations in the regions. Recent developments in the north east, such as the re-opening of Laurencekirk Station in 2008 and improved services across the City to Inverurie have contributed to significant increases in rail travel throughout the region. Rail services play a vitally important role in terms of providing connectivity to the rest of Scotland and the UK, particularly for business and leisure trips.

Aberdeen Harbour

Aberdeen Harbour is among Scotland's major ports, annually handling around 8,000 vessel arrivals and around five million tonnes of cargo per year, valued at approximately £1.5 billion, for a wide range of industries and with shipping links to more than 39 countries

worldwide. It is Europe's principal marine support centre for the energy sector in the North Sea and Atlantic Margin.

Despite the global recession, the Harbour experienced growth between 2008 and 2012 with:

- a 16% increase in shipping;
- a 7.8% increase in passengers; and
- a 25% increase in turnover.

Aberdeen International Airport

Aberdeen International Airport experienced the fastest passenger growth of all Scottish airports during the years to the publication of the last LTS and, like all UK airports, has suffered as a result of the economic downturn of recent years. Aircraft movements declined over the period, but returned to growth in 2010. Terminal passenger numbers also suffered an initial decline, but also returned to growth in 2010 with 2012 numbers now outstripping those of 2008 with almost 3.5 million passengers in 2013. Aberdeen remains the world's busiest heliport, handling over 35,000 helicopter movements every year, the majority serving the off-shore oil and gas industry.

Freight

Around 30 million tonnes of goods (excluding oil and gas in pipelines) are moved to/from and within the Grampian region every year. Road haulage plays a central role in this, with more than 80% of goods in 2010 lifted by road, thus emphasising the importance of the local road network for the transport of freight.

Appendix C: STAG Appraisal Summary Tables

Proposal Details			
Name and address of authority or organisation promoting the proposal:		Aberdeen City Council, Communities, Housing and Infrastructure, Marischal College	
Proposal Name:	Aberdeen City Council – Local Transport Strategy (LTS) Consultative Draft	Name of Planner:	Aberdeen City Council
Proposal Description:	Refreshed Strategy is based on the previous 2008 LTS and consists of a hybrid of best performing transport interventions.	Estimated Total Public Sector Funding Requirement:	Capital: N/A Revenue: N/A
Funding Sought From:	N/A	Amount of Application:	N/A
Background Information			
Geographic Context:	Located in the North East of Scotland, Aberdeen is built at the mouth of two major Scottish rivers, the Dee and Don, which feed into the North Sea which bounds the City to the east. The Aberdeen City Council area covers an area of 72.76 sq. miles. Although primarily an urban area, greenspace within the City and greenbelt land on the outskirts are an important part of Aberdeen's geographic context.		
Social Context:	Aberdeen is Scotland's third largest City with a population of 230,000. Over the years there has been a continuous drift from the City to the surrounding area. The City has one of the highest number of cars per household (0.98) of cities in Scotland while Aberdeenshire has the highest number of cars per household of any area in Scotland (1.48) (2011 Census).		
Economic Context:	Traditional industries such as fishing and farming still flourish in and around the City but Aberdeen's buoyant modern economy - reflected in unemployment rates consistently under 2% - is fuelled by the oil industry, earning the City its epithet as 'Oil Capital of Europe'. In the future, it is anticipated that Aberdeen will increasingly shift from the production of oil towards the servicing of the oil industry world-wide. The City is also home to two universities. Latest Household Survey Results reveal that 54.5% of all journeys to work are by car (driver), 5.3% are as car passengers, 21.3% are by foot, 11.3% are by bus, 3% by bicycle, less than 1% by rail and 3.7% by other modes.		
Planning Objectives (a full list of the objectives are set out at the end of this STAG)			
Objective:	Performance against planning aims (to be updated against mode objectives for Final LTS):		

Economy	+ 2 – The implementation of a more robust quality partnership with associated bus passenger priorities will help to minimise and improve the reliability of journey times for people. Demonstration Projects designed to lock in the journey time benefits of the AWPR through using available road capacity to provide additional priority to sustainable modes will also support the delivery of this objective. Implementation of a Large Vehicle Lane and other measures that encourage freight modal shift from road to rail and sea should also help to improve journey times for goods moving through Aberdeen's transport networks, and support economic growth. LTS outlines the proposal to increase investment in network maintenance and to support measures to improve the efficiency of maintenance activities, such as the development of an Asset Management Plan. Various interventions promoted by the LTS are designed to encourage the use of sustainable transport modes, such as walking, cycling and public transport use. Implementation of measures such as improved bus passenger priorities, the development of Travel Plans and Travel Planning initiatives, as well as measures that discourage the use of the private car (e.g. parking policies) should support this, and in turn ease congestion on the transport network. This will support the improved movement of people and goods, minimising journey times and aiding economic growth. LTS also supports the implementation of a package of projects that will lock in the benefits of the AWPR and guard against additional traffic simply being induced through the development of this road. LTS supports partners to lobby for and deliver enhanced regional and national connections through improvements to the trunk road and strategic rail networks. LTS also supports measures to improve access to Aberdeen Harbour and Aberdeen Airport.
Safety & Security	+1 – LTS outlines ACC's commitment to continue to improve road safety and reduce casualty levels through implementation of a combination of encouragement, enforcement, education, and engineering measures. The development of a Regional Road Safety Plan with partners and ongoing support for initiatives such as 'Safe Drive, Stay Alive' will also help ACC to deliver this objective. Ongoing maintenance and development of CCTV coverage across the City, as promoted in the LTS, will help to improve safety and perceptions of safety. ACC also supports the use of CCTV on public transport, and at interchanges and shelters as well as in the City Centre, to reduce the threat of violence and vandalism, and improve feelings of safety. As highlighted above, the LTS supports measures to improve the perceptions of safety on public transport, such as through development of CCTV on public transport and at interchanges.

Environment	+1 – Through the LTS, ACC supports various interventions designed to encourage travel behaviour change and reduce dependency on the private car, which should help to address the objective of reduced carbon emissions from road transport. Measures include the development of Travel Plans and implementation of associated travel planning techniques designed to increase the adoption of more sustainable transport modes (i.e. walking, cycling and public transport use). Promotion of car-sharing and the development of a City Car Club will also help to reduce car dependency. Other interventions designed to lock in the benefits of the AWPR should further help to reduce carbon emissions from road transport. LTS also promotes measures to encourage a freight modal shift from road to rail and sea where appropriate, which will further support the delivery of this objective. LTS also supports improvements in vehicle technology and measures to encourage increased take up of cleaner vehicles. A key emphasis within the LTS is to 'lock in' the environmental benefits of the AWPR by using available road capacity to provide additional priority to sustainable modes of transport, and trialling the introduction of interventions such as High Occupancy Vehicle Lanes and Large Vehicle Lanes. In taking forward plans for a Third Don Crossing, the Council is continuing to examine how walking, cycling and public transport improvements or priorities can be 'locked in' or optimised through this scheme. As set out in the LTS, ACC is committed to improving air quality throughout the City and in addition to monitoring the existing Air Quality Management Area in the City will consider the development of further AQMAs across Aberdeen. As highlighted above, measures to lock in the benefits of the AWPR by affording priority to sustainable modes of transport should help to support delivery of this objective, while ongoing implementation of traffic management techniques which influence the speed, flow and volumes of traffic will also continue to be used to address air quality problems at hot spots. LTS promotes the adoption of more sustainable, quiet forms of transport such as walking and cycling which should have a minor positive impact on noise pollution.
Accessibility	+2 – LTS outlines a range of measures designed to increase accessibility levels and in turn improve social inclusion levels for people in Aberdeen. Ongoing development of Community Transport and Demand Responsive Transport schemes will help to improve accessibility levels. The introduction of Accessibility Planning software and its application to target services to those most in need will also support the delivery of this objective. LTS sets out policy to review parking charges with a view to bringing them more in line with inflation and the cost of bus fares. Through the Quality Partnership for Public Transport, opportunities to introduce integrated tickets for public transport services and fare incentives for passengers buying longer period tickets should also help to maximise efficiency and reduce the relative cost of using public transport within the City. The introduction of salary sacrifice schemes through the development of Travel Plans will also support the delivery of this objective. Improved interchange facilities and the introduction of integrated ticketing will improve the ease of use of the City's public transport system. Continued development of real-time information systems will help to improve use of public transport in the City.

Integration	+ 2 – LTS outlines ACC's commitment to developments that encourage the use of sustainable travel modes e.g. Office and Residential Travel Plans, new infrastructure etc. The development of Accessibility Planning will also help in this regard. Where appropriate, planning conditions and enforcement of Section 75 Planning Agreements will be used to ensure that transport is no longer an afterthought in the development process and that developers mitigate impacts through contributing to necessary works. LTS supports measures that encourage the transfer of freight from road to rail and sea and will work with partners, such as through the development of Nestrans Freight Action Plan to facilitate modal split. Opportunities to transfer Council goods onto rail freight will also be explored during the life of this LTS. LTS supports the personal transport mode hierarchy outlined in Scottish Planning Policy 17 which priorities walking and cycling ahead of public transport and other motorised modes. The development of the Core Paths Plan, continued investment in pedestrian and cycle facilities to increase their respective modal splits, and ongoing promotion of Travel Planning measures should help to deliver our objective on this.
Rationale for Selection or Rejection of Proposal:	Strategy represents a hybrid of the best performing strategies in terms of consultation results, fit with national and regional transport strategy, and other appraisal processes from those options originally set out in the Consultative Draft LTS.
Implementability Appraisal	
Technical:	None of the proposed measures present significant technical risks although the LTS does support the implementation of Demonstration Projects, notably High Occupancy Vehicle Lanes, Large Vehicle Lanes and Low Emission Zones which have been trialled in relatively few other parts of the UK.
Operational:	Few operational risks identified.
Financial:	LTS is likely to be funded through a combination of local authority investment, Scottish Government and Regional Transport Partnership support, developer contributions, Sustrans and other external funding streams where feasible.
Public:	The Main Issues Report was informed

Government's Objectives for Transport		
Objective	Assessment Summary	Supporting Information
Environment:	+1	LTS will have a positive impact through the implementation of measures designed to lock in the benefits of the AWPR and promote the adoption of more sustainable modes such as walking, cycling and public transport. Promoting the transfer of freight from road to rail and sea will also have environmental benefits, through reduced carbon emissions from road transport, improved air quality and reduced noise pollution.
Safety:	+1	Implementation of Four E measures (encouragement, enforcement, education, and engineering), and other interventions designed to reduce casualty levels will have a positive impact on improving safety.
Economy:	+2	Measures to reduce levels of congestion and the promotion of alternative modes of transport will have a positive impact on minimising and improving reliability of journey times. This will help to support local economic development

		opportunities in the City.
Integration:	+2	Delivery of LTS will have a positive impact on both transport modal and transport policy integration. Provision of improved interchanges and other measures to improve the accessibility of the public transport network through the implementation of a more robust quality partnership (i.e. delivering integrated ticketing) will have a beneficial impact on transport modal integration. LTS also supports land use planning policy that supports the adoption of sustainable travel modes, ensuring policy integration. Opportunities to integrate transport with other policy areas (e.g. health, regeneration) are also supported within the LTS.
Accessibility & Social Inclusion:	+2	Improved accessibility related to implementation of measures designed to reduce congestion and improve quality of connections. Public transport improvements and the development of community and demand responsive transport schemes will also have a positive impact on enhancing levels of accessibility and social inclusion.

Appendix D: Problems and Objectives Matrices (to be reassessed when consultative draft objectives are fully established)

		Problems																			
		Economic Problems						Safety		Environmental			Accessibility Problems					Integration Problems			
Vision	**Aims - A transport system that:**	City Congestion	Lack of non-private car options (e.g. for non-radial journeys)	Poorly maintained roads and pavements	High cost of bus fares	Limited rail travel opportunities	Poor connections to the rest of Scotland	Road Casualities	Perceptions of safety and security	Poor air quality (e.g. City Centre)	Increased carbon emissions from congestion and traffic growth	Noise from aircraft and traffic	High Public Transport Fares	Barriers to the use of public transport	Accessibility of socially excluded groups (e.g. to public transport)	Lack of direct rail and air routes beyond Scotland	Single operator ticketing for public transport users	Dispersed development patterns create car dependency	Dispersal of population from city to county increases car use	Barriers to interchange for passengers and freight	Barriers to walking and cycling
A sustainable transport system that is fit for the 21st Centruy, accessible to all, supports a vibrant economy and minimises the impact on our environment	Enables the efficient movement of people and goods	×	×	×		×	×			×	×			×		×				×	×
	A safe and more secure transport system			×				×	×					×	×		×			×	×
	A cleaner, greener transport system	×	×							×	×	×						×	×		×
	An integrated, accessible and socially inclusive transport system	×	×	×	×	×				×	×		×	×	×		×	×	×	×	×
	A transport system that facilitates healthy and sustainable living	×	×	×	×	×			×	×	×	×	×		×			×	×	×	×
Intervention Category	**Objectives**																				
Support	Strategic Rail network	×	×			×	×			×	×			×		×			×	×	
	Shipping and Ferry services						×												×	×	
	Air services															×					
	Trunk road network	×		×			×	×													
	AWPR	×	×				×	×	×	×	×	×		×						×	×
	Freight								×	×	×	×								×	
Maintenance	Roads Carriageway and Footway Maintenance	×	×	×				×	×	×		×			×						×
	Winter Maintenance	×		×				×	×						×						×
	Contingency Planning and Utilities	×		×				×													×
	Lighting		×	×				×	×		×			×	×					×	×
	Structures	×	×	×				×							×			×	×	×	×
	Flooding			×				×	×												×
Management	Car Parking	×	×		×				×	×	×		×	×	×			×	×		×
	Community and DRT		×		×								×	×	×			×	×		
	Taxis and PHCs	×	×						×	×	×			×	×			×	×		
	Enforcement	×	×		×			×	×	×		×	×	×	×						×
	Traffic Management and Road safety	×	×	×	×			×	×	×	×	×	×	×	×			×			×
	Coaches						×								×						
	CCTV								×					×	×					×	×
	Air quality									×	×				×						×
	Noise											×									×
Sustainable Development and Travel	Land Use Planning	×	×			×	×	×	×	×	×	×		×	×			×	×		×
	Travel Plans	×								×	×			×	×			×		×	×
	Car Sharing	×	×							×	×				×			×	×		
	Car Clubs	×	×							×	×	×			×			×			
	Ultra Low Emission Vehicles									×	×	×									
	Travel information and awareness	×							×	×	×			×	×			×		×	×
	School travel and young people	×						×	×	×	×									×	×
	Climate Change									×	×										
	Biodiversity and the Green Space Network		×						×	×	×				×						×
Improvements and Additions	Walking	×	×	×				×	×	×	×	×			×			×		×	×
	Cycling	×	×	×				×	×	×	×	×			×			×	×	×	×
	Bus	×	×		×				×	×	×	×	×	×	×		×	×	×	×	
	Rapid transit	×	×							×	×			×	×			×	×	×	
	Powered Two Wheelers	×	×							×	×							×	×		
	Road improvements	×	×																		
	ITS	×						×	×	×	×			×				×	×	×	
	Public Realm	×	×	×				×	×	×	×	×			×					×	×

Appendix E: LTS Monitoring Regime (to be expanded)

The following indicators will be used to measure our progress between 2015 and 2020.

Measuring the Outcomes:

A. Increased modal share for public transport and active travel

- Employed adults not working from home, resident in Aberdeen City, usual method of travel to work by public transport and active travel
- Pupil's in full time education at school – usual main method of travel to school by active and public transport
- Number of passengers using Park & Choose sites

B. Reduced the need to travel and reducing dependence on the private car

- Employed adults working from home, resident in Aberdeen City
- Employed adults not working from home, resident in Aberdeen City, usual method of travel to work by private car
- Car Club membership numbers

C. Improved journey time reliability for all modes

- Journey time variability by public transport
- Journey time variability by private car
- Average time lost per vehicle kilometre on trunk roads in Aberdeen

D. Improved road safety within the City

- Percentage of the carriageway considered for maintenance treatment
- Monitoring of road traffic casualty statistics: killed/ seriously injured, children killed or seriously injured and slight casualty rate.

E. Improved air quality and the environment

- Exceedences of PM10s and NOx
- Number of Air Quality Management Areas
- Carbon dioxide emissions from road transport

F. Improved accessibility to transport for all

- Monitoring of public transport times and public transport cost between regeneration areas to key destinations
- Cost of public transport and cost of car parking
- Views on the convenience of public transport

G. Promoted a higher quality of life

- When all of are positive the LTS will have promoted a higher quality of life in transport for Aberdeen citizens.

Potential Monitoring/ Further Indicators

It is important that the progress that the Council makes in delivering the LTS is monitored on a regular and progressive basis. Difficulties were experienced in monitoring the previous LTS as the success of actions tended to be measured against target-driven outcomes, traditionally more difficult to measure than outputs. In addition to being difficult to monitor, this approach was also extremely time-consuming.

In developing this LTS, the decision has therefore been taken to avoid setting broad targets and to instead monitor progress at the local project level. This means that the input of each individual project will be monitored and measured against the delivered output. In doing so, we will be able to quantify our efforts relative to the benefits achieved by delivering a particular action. By regular review of our inputs and outputs we will also be better placed to react depending upon the success of our efforts.

SUPPORT	

Strategic Rail	• Number of journeys to/from Inverness and the Central Belt (through timetable analysis)
	• Journey times from Aberdeen to Inverness, Glasgow and Edinburgh (timetable analysis
	• Rail patronage:
	  ○ Rail passenger journeys wholly within Scotland, using national rail tickets from Aberdeen (STS);
	  ○ Rail passenger journeys wholly within Scotland, using national rail tickets to Aberdeen (STS);
	  ○ Use of local train services in the last month (SHS)
	  ○ Method of travel to work (SHS)

Shipping and Ferry	• Foreign and domestic traffic (STS) • Ferry passenger numbers (STS)
Air Services	• Air terminal passengers (STS) • Passengers on selected domestic routes to/from Aberdeen (STS) • Air transport movements (STS) • Total aircraft movements (STS)
Freight	• Average freight lifted by HGVs per year (STS) • Foreign and domestic freight traffic by port (STS)
Trunk Road Network	• Accidents on trunk roads (particularly ped/cycle)
MAINTENANCE	
Road Carriageway and Footway Maintenance	• Road traffic condition (STS) • Investment in road, footway and cycleway maintenance (ACC) • Public liability claims (ACC) • +++see Performance Indicators
Lighting	• Proportion of lighting columns over 25 years old (ACC) • Number of lighting columns with energy efficient/LED bulbs • Carbon emissions of street lighting (ACC) • Expenditure on street lighting (ACC)
Structures	• Expenditure on structures (ACC)

	• Number of bridges requiring improvement (ACC)
Flooding	• Expenditure as a result of flooding incidents (ACC)
Winter Maintenance	• Government expenditure on winter maintenance
Contingency Planning and Utilities	
MANAGEMENT	
Car parking	• Cost of car parking compared to public transport • Number of low car developments in the City
Community and DRT	• Number of Community/Demand Responsive Transport schemes in Aberdeen
Taxis and PHCs	• Accessibility of the taxi fleet • Number of low emission taxis (would need to define)
Coaches	
Traffic Management and Road Safety	• Accident and casualty numbers – fatal serious slight (Road Accidents Scotland) • Child KSI (Road Accidents Scotland) • Slight casualty rate (Road Accidents Scotland) • Number of schools delivering Bikeability Scotland (ACC)
CCTV	
Enforcement	• Number of offences
Air Quality	• Compliance with the annual mean NO2 objective of 40ugm^{-3} and the annual mean PM10 objective of 18ugm^{-3} by 2018 at the Council's 4 continuous air quality monitoring stations where levels currently exceed the objectives: Market Street, Union Street, King Street and Wellington Road.
Noise	
SUSTAINABLE DEVELOPMENT AND TRAVEL	
Land Use Planning	
Travel Plans	• Number of Travel Plans/Travel Packs submitted to the Council in support of new development • Number of schools engaged with the travel planning process • Travel to work mode share (SHS) • Travel to school mode share (HUS)
Car Sharing	• Number of Aberdeen citizens registered on the Getabout Liftshare site • Number of private car sharing schemes from Aberdeen registered with Liftshare • Travel to work mode share (SHS)
Car Clubs	• Number of Car Club members • Number of Car Club vehicles • Number of non-conventional Car Club vehicles (WAVs, electric, hydrogen etc.) • Car Club usage
ULEVs	• Number of EV chargepoints in Aberdeen • Number of EVs in the City • Number of hydrogen vehicles in the City

	• Use of EV points
Travel Information and Awareness	• Number of events in the City per year • Feedback from events regarding behavioural change • Estimate number of individuals involved in events • Number of VMS
School Travel and Young People	• Travel to school mode share (HUS) • Number of schools with a Travel Plan in place • Number of schools with cycle parking • Number of schools with scooter parking • Number of schools engaged with travel planning • Number of schools/pupils participating in Bikeability Scotland
Climate Change	• CO2 emissions • Expenditure of flood damage • Travel to work mode share (SHS)
Biodiversity and GSN	•
IMPROVEMENTS AND ADDITIONS	
Walking	• Travel to work mode share (SHS) • Travel to school mode share (HUS) • Levels of walking more than a quarter of a mile as a means of transport in the previous seven days (SHS) • Levels of walking more than a quarter of a mile for pleasure or to keep fit in the previous 7 days (SHS)
Cycling	• Travel to work mode share (SHS) • Travel to school mode share (HUS) • Number of schools participating in Bikeability Scotland (ACC) • Annual cycle counts (ACF)
Bus	• Bus patronage (Nestrans) • Park and ride patronage • Travel to work mode share (SHS) • Cost comparisons • Satisfaction with bus services in Aberdeen (BPSS)
Rapid Transit	
PTWs	• Recorded motorcycle accidents (ACC)
Road Improvements	
ITS	
Public Realm and SUMP	

Appendix E: SEA – Environmental Mitigation of the LTS

- Attached as a separate document – Appendix 2