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Norfolk County Council

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Local Transport Plan 4 Strategy 2021-2036

[Combined with Local Transport Plan 4 Implementation Plan]

Executive Summary

The Local Transport Plan sets out Norfolk County Council's plans, policies and programmes on transport and transport infrastructure. The plan details how we will deliver a transport network in Norfolk through identifying the projects and programmes important to us, and in their design and direct delivery. The plan also shows how we will seek to influence our key partners in government, communities, the commercial sector and the third sector.

This plan is important because transport is important. Transport enables people to get to work and education. It allows us all to visit friends and relatives. We rely on it for days out, for leisure outings and shopping trips. As such, good transport helps people to improve their skills and qualifications. It allows Norfolk's economy to flourish and ensures that we get good delivered to our factories and our doorsteps. People's physical and mental health can be improved, and social isolation reduced, through good transport, especially if people can be given confidence to walk or cycle, and if we can improve our bus and rail links. The plan will set out how we make sure that transport's impacts are minimised; how we will improve the air quality in our towns and built up areas; and how we plan to reduce carbon emissions.

This plan contains a transport strategy that looks towards 2036. It is accompanied by an Implementation Plan setting out our proposals for implementation.

Achievements

Since the adoption of the previous Local Transport Plan in 2011 some significant achievements have been made. Norfolk County Council has worked closely with local planning authorities to make sure that new growth is in locations that ensure that people are able to access the jobs and services they need; and that this can be done sustainably.

We are a stakeholder in the largest investment in sustainable transport for the last hundred years through the provision of new rolling stock on Greater Anglia routes (which has grown capacity by 30%). London to Norwich rail services in 90-minute services are now a reality, and the Norwich-Cambridge service has recently been extended to Stansted airport. Longer trains now serve King's Lynn.

There are new buses on the county's core bus route on the A47 "Excel" bus service. Our ambitious Transforming Cities and Cycle City Ambition programmes will continue to reap major improvements to bus connections and cycle networks in Norwich. We have grown a network of community transport which increasingly complements the commercial bus network through partnerships with operators and direct operation through transport plus.

We work closely to accelerate housing growth and provide the necessary transport infrastructure including taking forward work on the Long Stratton Bypass and West Winch Housing Access Road. We have completed the Broadland Northway (Norwich Northern Distributor Road). Not only has this allowed a programme of sustainable transport measures to be implemented within the city centre, it has also stimulated housing and jobs growth. We have delivered programmes of sustainable transport improvements including in Great Yarmouth, Attleborough, and Thetford growth areas whilst Norwich has benefitted from roll-out of the cycle city ambition programme of cycle routes.

Government has committed to A47 improvements including dualling from Blofield to Burlingham and Easton to Tuddenham, as well as major junction upgrades in Norwich and Great Yarmouth. Government has also accepted the strategic outline business case for the Norwich Western Link with construction programmed to start in 2023. Construction of the Great Yarmouth Third River Crossing started in early 2021. This will provide improved access to the port directly from the trunk road and reduce traffic within the town.

We have managed and made improvements to the road condition during a period of austerity. The National Highway Transportation Survey shows that Norfolk performs well against and we came out on top in 2019 with the 'Highway Maintenance' and 'Tackling Congestion' categories.

Our New Plan

We have updated the Local Transport Plan to respond to the challenges ahead. These include carbon reduction and addressing air quality. These remain key priorities. In particular, this plan sets out how we will decarbonise the transport network. The council's Environmental Policy has been adopted, setting out a move towards carbon neutrality by 2030. Recently, in July 2021, government published Decarbonising Transport A Better, Greener Britain, its transport decarbonisation plan.

Active travel is increasingly important. Government has set out its vision that half of all journeys in towns and cities being cycled or walked by 2030. More recently government has also published its bus strategy, emphasising the place for buses as at the centre of the public transport network, and outlined its intention for reform of the nation's railways. Our new plan responds to these agendas. In our towns and urban areas, in particular, making sure that we have good transport connections is a challenge because of the amount of planned growth. The plan sets out how we will seek to make sure that shorter journeys can be made by active travel and meet government's objective for England to be "a great walking and cycling nation."

Connections to essential services and facilities remain a challenge, particularly in rural areas. This can reinforce social exclusion by preventing people from accessing key local services. We have committed to an enhanced bus partnership, setting out how we will work together with bus operators, and are developing a Bus Service Improvement Plan.

We also need to respond to the fact that society and the economy are changing. Improved technology and communication have led to people behaving differently, and to different travel patterns. Innovation in vehicle technology brings challenges such as how to deal with new vehicle types on the network, whether this be electric cars, e-scooters or autonomous vehicles. More and more data is becoming available through tools like apps on mobile phones. People are increasingly relying on such tools for their journey choices often putting pressure on certain parts of the system with the county council unable to influence this.

We also need to tackle the infrastructure deficit to ensure journeys on our major bus, road and rail connections are quick and reliable, and can be made by clean modes of transport, or clean-fuelled vehicles. Our priorities include improvements to the major rail links to London and Cambridge, the Norwich Western Link, A140 Long Stratton Bypass, A10 West Winch Housing Access Road, and full dualling of the A47.

A good transport system will encourage investment into the county by businesses including housing developers. This will help meet the future housing needs of a growing population, as well as providing jobs and other essential services.

Covid-19

Since commencing the review of the Local Transport Plan, the Covid-19 pandemic has broken out. This has resulted in many changes to people's everyday life and seen the UK and Norfolk in various stages of lockdown for much of 2020, continuing into 2021. Restrictions around – amongst other things – movement, opening of businesses, retail units and the hospitality sector, physical-distancing and overseas travel have affected the way that people use the transport network; and the reasons why people are travelling. This has been monitored throughout the plan's development at both a local level and nationally. It is too early to say whether life might return to the pre-pandemic-normal or be very different because of it. However, indications suggest that the impact of Covid-19 has accelerated many of the changes that the nation was already going through: more working at home; more online shopping; increased flexibility around working hours and behaviours; major employers looking to reduce office costs resulting in different uses for buildings or in how they are used by employees.

The pandemic and resulting legislation also forced people to change. Workplaces were closed and people no longer travelled into work or for leisure. We saw a reduction in vehicular traffic, down to 50-60% of their usual levels in our urban centres in early April 2020. Bus and train travel reduced by even greater amounts. Traffic levels returned over the summer to pre-pandemic levels, although bus and train travel remain significantly down. We have seen an increase in people walking and cycling. Reports suggest that many large companies are planning for their employees to continue to work remotely whilst property agencies report an increase in people looking for houses outside of urban areas, probably remote from their office base.

We are therefore planning on the basis that it is likely that many of the changes (most of which we were going through in any case) will 'stick.' We also need to plan on the basis that we will encourage people to stick with their new habits of walking and cycling, which bring benefits including reduced carbon and congestion, improved air quality in our urban areas, and better physical and mental health for people participating.

Local Transport Plan Strategy and Policies

This plan sets out that we will:

- Seek to achieve the environmental policy target of working towards carbon neutrality when we make changes and improvements to our transport network, and through working with users on how they choose to use the transport network. This will include:

  - Prioritising a shift to more efficient vehicles, including lower carbon technology and cleaner fuels with a particular emphasis on electric vehicles

  - Looking at behaviour change and interventions that can help to increase the use of sustainable transport

- Prioritise tackling poor air quality problems where air quality falls below the recognised thresholds. This includes investigating vehicular restrictions or charging in urban centres

- Prepare the county for future changes and challenges to ensure the best for our society, environment and economy

- Be proactive when it comes to innovating and adopting new technologies

- Work closely with partners to ensure that new developments are located in suitable areas with access to services and leisure facilities via sustainable and active transport and not in areas that would be reliant on the private car

- Seek to mitigate any adverse effects of new development on the transport network

- Work with partners and make the case for investment to the rail network and trunk roads, which the county council does not manage or maintain, to seek improvements, seeking quick, reliable journey times for longer-distance journeys where there is the highest need

- Improve connectivity between rural areas and services in urban centres with a focus on active travel and public transport

- Tackle accessibility problems in partnership, targeting those communities most in need

- Put in dedicated, segregated lanes for public transport and / or cycling on certain corridors in urban areas and prioritise maintenance of those parts of the network used by people walking and cycling in our built-up areas

- Commit to providing a network where transport and movement can be accessed, understood and used to the greatest extent possible by all people, robustly assessing all schemes and paying due regard to the Public Sector Equality Duty (along with our other duties and responsibilities), to identify potential barriers and determine how best to overcome any barriers and facilitate access to the greatest extent possible for all. Where appropriate, on a case-by-case basis, we will make reasonable adjustments

- Design or change transport systems to recognise that people make mistakes and to ensure that survivability is maximised

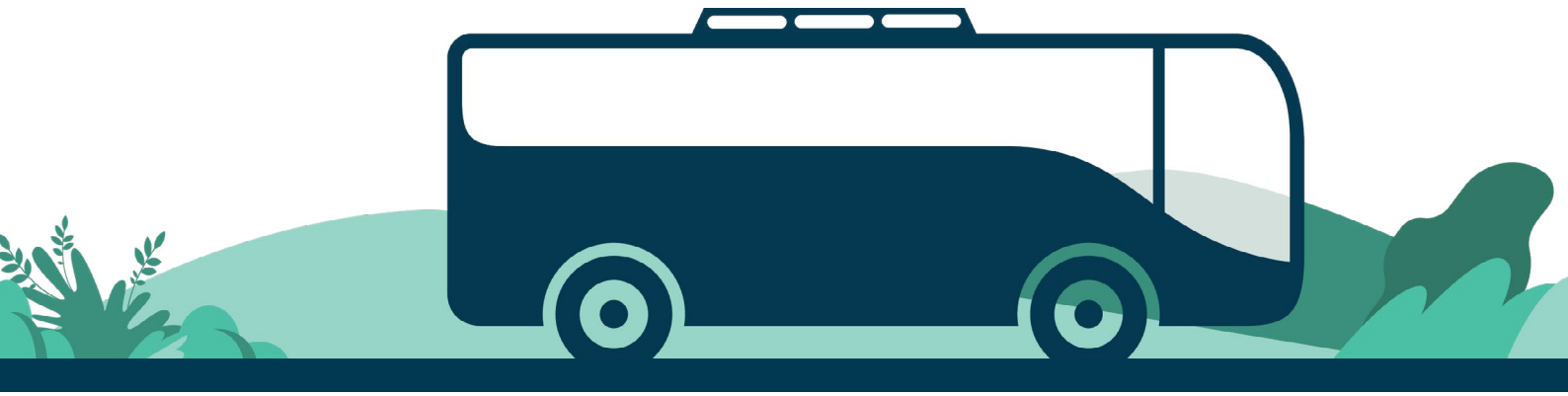
- Use the annual funding allocation from government predominantly for maintenance and maximise other funding sources for new measures like cycleways, roads or public transport infrastructure

- Focus on identifying the key risks from climate change and directing efforts on tackling these where they are likely to be most disruptive to journeys, especially on those parts of the network identified as critical to keep functioning

- Embrace new and innovative technology so that we can (i) better monitor and maintain our networks and (ii) provide information about travel and current performance of the network to users.

Local Transport Plan Implementation Plan

An Implementation Plan has been developed. This sets out our proposals for implementation. of the strategy.



Contents

Chapter 1:
Introduction

The Local Transport Plan details how the county council deals with a wide range of transport matters to achieve council objectives including a strong and stable economy, the health and well-being of our residents and reducing carbon. The plan shapes the nature of our own projects and the design and delivery of these as well as how we influence the plans and programmes of other agencies and partners including in government, communities, the commercial sector and the third sector where these are relevant to transport (such as district council growth plans or government programmes of schemes on the trunk road and rail network).

The key issues this plan explores include how we: achieve the policy aim to work towards carbon neutrality by 2030 as agreed in the environmental policy recently adopted by the county council; improve air quality in urban areas; meet the challenge of technology and innovation in the transport system and the ways in which people work; and support the economy of the county by ensuring that people can make the connections they need.

The Local Transport Plan objectives are:

- Embracing the Future
- Delivering a Sustainable Norfolk
- Enhancing Connectivity
- Enhancing Norfolk's Quality of Life
- Increasing Accessibility
- Improving Transport Safety
- A Well Managed and Maintained Transport Network

The Government's Cycling and Walking policy has placed sustainable modes of transport and active travel at the heart of the way we design transport infrastructure

These objectives support the county council's wider strategic objectives and aims, not least as set out in the county council's business plan for 2019-2025, Together, for Norfolk. This sets out our ambition for economic growth, managed development and a better future for all, working with a host of organisations, businesses and community groups across our county. Recently, the council has adopted its environmental policies which include a target for a move towards carbon neutrality across all sectors by 2030. The Local Transport Plan sets out transport's contribution to this ambitious target. The plan is supported by a Strategic Environmental Assessment, which has been undertaken as part of a sustainability appraisal so that we understand, and can take account of where appropriate, the plan's impact on environmental, economic and social indicators in its development.

Norfolk County Council is the Highways Authority and is responsible for maintenance and management of most public roads and rights of way in Norfolk (except the A47 and A11 which are the responsibility of National Highways, formerly Highways England). The county council has a major influence on provision of other transport services such as public transport, but is not responsible for bus services, ports, airport or rail services. Our significant influence is exercised through working with partners, government and operators to improve these where possible.

The strategy is complemented by an implementation plan. This describes the measures that will be delivered over a shorter time period, in accordance with the government's comprehensive spending review period. This implementation plan has been developed.

The plan is supported by a number of more detailed policies and guidance notes. These include:

- Transport for Norwich Strategy
- Transport strategies for King's Lynn and Great Yarmouth
- Electric Vehicle Strategy, adopted by the county council in October 2021
- Walking and Cycling Strategy, currently being refreshed
- Norfolk Rail Prospectus, currently being refreshed
- Bus Service Improvement Plan, submitted to the Department for Transport October 2021.

These documents contain more detail about individual topics and are signposted within the document.

Chapter 2:
Background

About Norfolk

Norfolk is situated in the east of England, bordered with Suffolk, Cambridgeshire and Lincolnshire.

The county has an exceptional heritage and culture, unique landscapes and diverse wildlife habitats. Norfolk also has over 100 miles of coastline, which is designated as an Area of Outstanding Natural Beauty and The Broads National Park, which is home to over a quarter of the UK's rarest species.

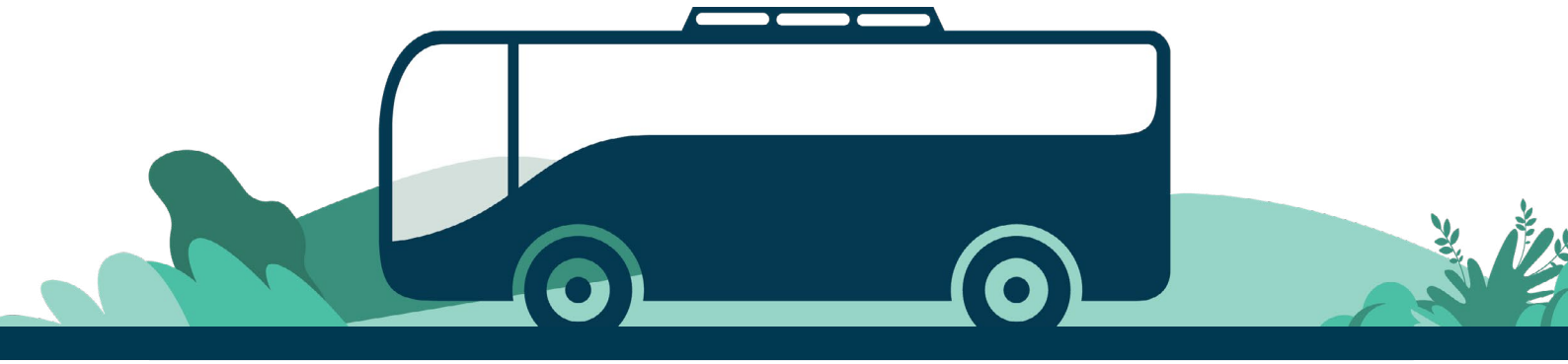
Total population of Norfolk is 908,000 and projected to rise to 985,200 by 2036

2019 population data – Norfolk Insight

Norwich is Norfolk's county town and its only city. Norwich is home to an estimated 117,000 jobs and more than 8,000 businesses, and the city is one of the largest centres of employment in greater south-east England. Norwich is one of the fastest growing cities in the UK and contributes more than £3 billion per annum to the national economy.

58.5% of people in Norfolk are aged 16-64

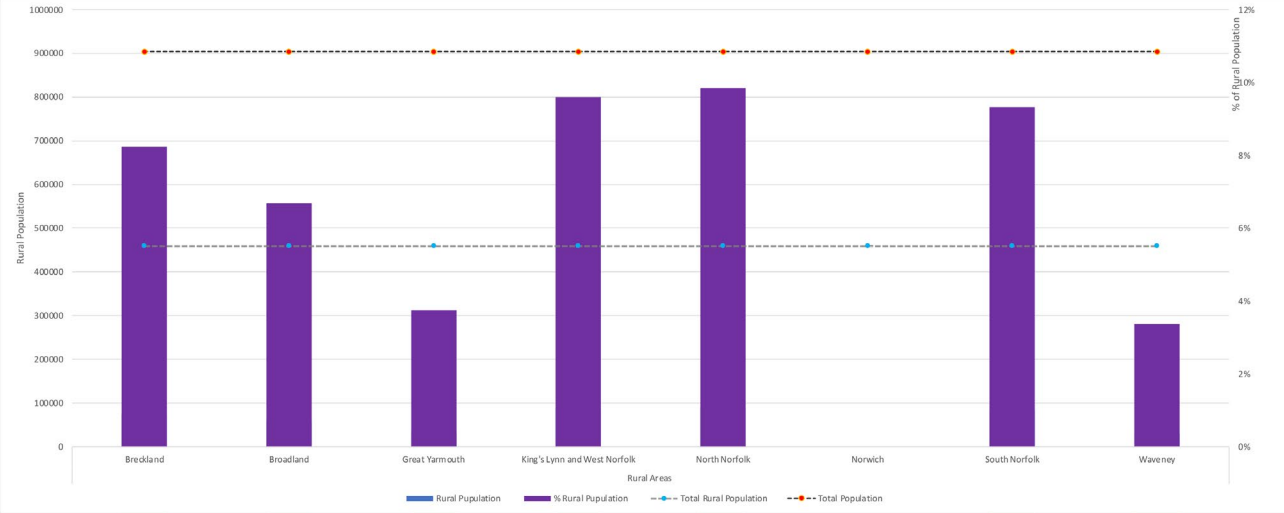
2019 population data – Norfolk Insight



King's Lynn and Great Yarmouth are also important urban areas within the county, forming important centres for their populations and supporting a wider range of businesses including those associated with offshore energy.

Much of Norfolk is rural, with a large number of small, dispersed villages and market towns. Public services, such as GP surgeries and schools tend to be within the larger villages, market towns or urban areas. Therefore, significant numbers of people have to travel relatively long distances to access everyday facilities, often with the added challenge of variable quality public transport. Norfolk also has one of the largest highway networks in the country, around 10,000km or over 6,000 miles, which provides some significant challenges in terms of travel and maintenance. Norfolk's transport network is also largely rural, lengthening journey times. Many settlements still retain historic street layouts, leading to congestion on some corridors and a lack of space to provide facilities for all different types of user of the network.

Figure: Rural Population in Norfolk and Waveney



Recent progress and achievements

The previous Local Transport Plan was adopted in 2011. Since its adoption several schemes and projects have been delivered. Norwich to London in 90 minutes rail services and complete replacement of all rolling stock in the Greater Anglia franchise have been delivered, transforming many rail journeys in Norfolk. Longer trains now serve King's Lynn.

Across the county we have made significant improvements to walking and cycling. In Norwich, we have adopted a comprehensive pedalway network and invested significantly in improvements to the pink, yellow, blue and green pedalways and the Marriotts Way section of the red pedalway / National Cycle Network 1. A bike-hire scheme is running, and e-scooter trials are currently underway in Norwich and Great Yarmouth.

The Broadland Northway (formerly known as the Norwich Northern Distributor Road) provides a new link around the northwest of Norwich, meaning that traffic no longer has to use city centre or suburban / rural links. It has stimulated housing and jobs growth around the north of Norwich and allowed a programme of active travel and public realm improvements in the city centre including closure to general traffic of St Stephens and Rampant Horse Street, and pedestrianisation of Westlegate.

A11 dualling has been completed. There has also been a commitment to improvements and funding for A47 Great Yarmouth Junctions, Blofield to Burlingham dualling, Thickthorn Roundabout and Easton to Tuddenham dualling. Great Yarmouth Third River Crossing started on site in early 2021. This will significantly improve access to the port as well as taking traffic out of the town.

The Local Transport Plan

The Local Transport Plan for Norfolk describes Norfolk County Council's strategy and policies for funding of roads and other transport infrastructure; and how the county council will work with others on matters relating to transport such as location of new housing growth.

Since the previous plan's adoption time there have been many changes to the way that people travel, and how much.

Technology has meant that we are now increasingly able to live our lives without the need to travel, for example using online resources such as internet shopping. This has also become more widespread since the 2020 Covid-19 outbreak, meaning people are now more comfortable using technology to work and socialise. Because of this people now re-evaluate their need to travel so it is important to ensure that people have the right technology to make informed decisions about travel choices. The way we travel is also changing, with more information and more technology being built into vehicles and more options such as car clubs and bike share schemes. Norfolk County Council has also recently adopted an environmental policy to achieve 'net zero' carbon emissions on our estates by 2030, but within our wider areas, work towards 'carbon neutrality' by 2030.

Evidence and engagement

Chapter 3:
Strategic Objectives and policy context

Objective 1:
Embracing the Future

Rapid advances in technology bring opportunities for us to be more innovative and agile in delivering an efficient and effective transport network. Increased data can help to inform how we manage and maintain the network. At the same time, we need to make sure that everyone benefits from the advances that technology can bring.

Objective 2:
Delivering a Sustainable Norfolk

Delivering sustainable development is highly important, especially with the planned housing growth. We will seek to preserve and enhance our built, natural and historic environment and seek to ensure new development is beneficial to Norfolk's society, economy and environment.

Objective 3:
Enhancing Connectivity

It is our priority to maintain and enhance important connections to enable movement into and around the county and increase our attractiveness as a location both for businesses and people. Good connectivity is very important for getting from A to B easily whether for work, education, visiting family and friends, and deliveries.

Objective 4:
Enhancing Norfolk's Quality of Life

Enhancing the quality of life for Norfolk's residents is very important to Norfolk County Council. We want to improve the health of our residents by improving air quality and encouraging active travel options to improve health and fitness. Our commitment is to work towards zero carbon.

Objective 5:
Increasing Accessibility

Increasing accessibility is important so that everyone has access to the services and opportunities they require. In this plan we aim to increase the accessibility of Norfolk and address the challenges such a rural county faces and also to adapt to accessibility requirements in the future.

Objective 6:
Improving Transport Safety

We aim to improve the safety of our transport network in order to reduce casualties and help people feel safe when using any mode of transport. Norfolk County Council aims to overcome the various challenges on the network and to create a network which encourages safe usage of our roads and to protect vulnerable transport users.

Objective 7:
A Well Managed and Maintained Transport Network

Norfolk County Council is responsible for the management and maintenance of 10,000 kms of Norfolk's roads and 4,000 kms of Norfolk's footpaths and other public rights of way. We will apply new and innovative technology where it will be most effective to improve the management and maintenance of the network to keep Norfolk moving.

Strategic Policy Context

International and National Policy and papers

The Road to Zero 2018

Next steps towards cleaner road transport and delivering the Industrial Strategy.

• Ending the sale of new conventional petrol and diesel cars and vans by 2035 (originally 2040)

• Aim for almost every car and van to be zero emission by 2050.

This ambitious target is relevant to Norfolk's LTP4 as it sets the direction of where transport is headed in the future, enabling us to look ahead and plan infrastructure around zero emission vehicles and the phase out of petrol and diesel cars and vans. The strategy drives the uptake of zero emission cars, vans and trucks.

Transport Act 2000

Requires local transport authorities to write a local transport plan with policies for the promotion and encouragement of safe, integrated, efficient and economic transport within their area and an implementation plan explaining how these policies will be carried out.

Climate Change Act 2008

The Climate Change Act 2008 sets the target to reduce the UK's CO2 emissions to 80% of 1990 levels by 2050. This has since been updated in 2019 with the aim of the UK being carbon neutral by 2050.
This is relevant to the LTP4 as the transport sector emits the greatest amount of carbon dioxide emissions in the UK and will therefore need to be transformed to meet such ambitious targets.

Decarbonising Transport: Setting the Challenge 2020

Sets out how DfT will work with others to produce a Transport Decarbonisation Plan later in 2020 to ensure we reach net zero transport emissions by 2050, with a vision for how a net zero transport system will benefit us all.

Future of mobility: urban strategy March 2019. Bus Back Better 2021
This strategy outlines government's approach to maximising the benefits from transport innovation in cities and towns. E-scooters could be a fast and clean way to travel easing the burden on the network. Parts of the county are participating in e-scooter trials to help inform legislation. Bus Back Better sets government's vision for buses to be at the heart of the public transport network.

Net Zero Strategy: Build Back Greener, October 2021
This strategy sets out policies and proposals for decarbonising all sectors of the UK economy to meet our net zero target by 2050. A key commitment in transport is to ensure the UK's charging infrastructure network is reliable, accessible, and meets the demands of all motorists.

Government Cycling and Walking Policy for England July 2020
Government wants to see a step-change in cycling and walking in the coming years.

Increasing cycling and walking can help improve air quality, combat climate change, improve health and wellbeing, address inequalities and tackle congestion on our roads. This policy aims to create connected, healthier and more sustainable communities.

Decarbonising Transport A Better, Greener Britain 2021
Sets out how a plan for how government intends that the emission reductions in Decarbonising Transport will be achieved. Four other documents were published alongside the strategy: Jet Zero Consultation, non-zero emission HGV Phase Out Consultation, Green Paper on a New Road Vehicle CO2 Emissions Regulatory Framework and a Rail Environment Policy Statement.

British Energy Security Strategy, April 2022
This aims to ensure secure, clean and affordable British energy for the long term and includes investment in green public transport, cycling and walking, and provision for hydrogen transport.

Design Transport & Storage business models by 2025 for hydrogen transport and storage infrastructure, which will be essential to grow the hydrogen economy. Norfolk is well placed to support a hydrogen economy we will therefore continue to review Hydrogen studies in the region and how the LTP might support these in the future.

Levelling Up White paper, 2 February 2022
The aim of Levelling Up is to reorganise the relationship between central and local government and put more focus on councils to deliver the Government's programme to improve opportunities and outcomes in all parts of the country.

The White Paper provides details of 12 new missions across four broad areas: boosting productivity and living standards by growing the private sector; spreading opportunities and improving public services; restoring a sense of community, local pride and belonging; and, empowering local leaders and communities.

Levelling-up and Regeneration Bill, 11 May 2022
This bill includes a range of proposed changes to the planning system, including changes to developer contributions, requirement for a design code, environmental assessment and enforcement. The new system will be based on the principles of: beauty, infrastructure, democracy, environment and neighbourhood engagement.

Regional and Local Policy

Norfolk and Suffolk Economic Strategy 2017
The Norfolk and Suffolk Economic Strategy has been formed through the collaboration of businesses, education providers, local councils, the voluntary community sector and the New Anglia LEP. The document outlines the ambitions for future growth across Norfolk and Suffolk.

This is relevant to the LTP4 as the plan should aim to facilitate the achievements of the strategy and take into account the ambitions and future development of the county.

Norfolk County Council's Environmental Policy
A Key part of the Norfolk County Council Environmental Policy was to work towards 'carbon neutrality' in Norfolk by 2030 and to collectively achieve 'net zero' carbon emissions in Norfolk County Council, Suffolk County Council and the Broads Authority estates, also by 2030.

This is relevant to the LTP4 as it sets out an ambition for the County in which transport can have a big effect. The LTP4 should hence aim to help achieve these targets by drastically reducing our transport emissions.

Together, for Norfolk 2019-2025
Together for Norfolk sets out Norfolk County Council's priorities:

- Focussing on inclusive growth and improved social mobility
- Encouraging housing, infrastructure, jobs and business growth across the county
- Developing our workforce to meet the needs of the sectors powering out local economy
- Work to reduce our impact on the environment
- Help Norfolk have a growing economy, full of thriving people living in strong communities we are proud of.

Local Transport Plan 4 should aim to help achieve these priorities.

Relationship of the Local Transport Plan with other Norfolk transport policies, plans and programmes

The Local Transport Plan sets out the overarching strategy across the whole of the county, across all areas including different transport modes and the overall approach for how we will deal with transport issues arising from growth plans. Alongside the Local Transport Plan there is a series of more detailed plans, policies and programmes. These provide more detail about how the strategic policies of the Local Transport Plan will be implemented at the detailed level. Although not an exhaustive list, these include:

- Bus Service Improvement Plan. Following release of the government bus strategy, Bus Back Better, in March 2021, we have developed our bus improvement plan and submitted to government in autumn 2021
- Walking and Cycling Strategy: This is currently being refreshed. The county council is developing a series of Local Cycling and Walking Infrastructure Plans (LCWIPs) to provide more detail in local areas. LCWIPs were adopted for Norwich, Great Yarmouth and King's Lynn in spring 2022 and are progressing for Dereham and countywide
- Transport Asset Management Plan: Sets out the management, operation, preservation and enhancement of the transport infrastructure
- Transport for Norwich: This was refreshed and adopted in autumn 2022 to replace the existing Norwich Area Transportation Strategy. This deals with the built-up area of the city, its growth areas and travel to and from surrounding areas
- King's Lynn Transport Strategy: This has recently been adopted
- Great Yarmouth Transport Strategy: This has recently been adopted
- Market Town Transport Network Improvement Strategies: The council has developed ten such studies looking at the market towns across the county to identify transport measures needed to accommodate growth pressures.

As well as county council documents, such as the Norfolk Access Improvement Plan (NAIP), 2019-2029, there are other significant documents including local plans, setting out development plans across the districts, and documents setting out visions for specific areas, such as, for Norwich, the 2040 City Vision and Norwich City Centre Public Spaces Plan.

Chapter 4:
Embracing the Future

Introduction and chapter summary

This chapter deals with:

- Challenges, changes and trends. This includes changes in the way we travel, and our reasons for travel, and increased awareness of climate change issues
- Policy. Existing national and local policies and targets we need to consider such as the climate change act, and the move towards electric vehicles (EVs)
- Technology. New technology requiring infrastructure such as EVs, connected and autonomous vehicles, and the way we monitor the network such as using sensors
- Behaviour change. Interventions that can work alongside other policies and programmes to help bring about changes in the choices that people make.

The chapter sets out that:

- Norfolk has a growing population which, if we don't act, will increase traffic and put pressure on the transport network, air quality, climate change, the environment and economy
- Awareness of climate change is increasing and there is a growing expectation that this will be a large consideration in decision making
- The increased need to focus on active and sustainable modes of transport such as electric vehicles, cycling and walking
- We should be ready to trial new technology and work in partnership with the private sector to bring about innovation. Use of innovative technology can also be used to monitor the network and provide real time information to users, which is covered further in the Connectivity chapter
- Our desire for transformation mixed with the rapid changes and developments in technology mean we need to prepare for new technology such as electric scooters, charging points for electric cars, and advances in the way we keep people informed of changes on the transport network
- Norfolk has responded well to the Covid-19 pandemic and residents have adjusted to new ways of working, shopping and socialising. As a result, there has been an increased desire to cycle and walk and access green infrastructure. With this has come a heightened awareness of the environment and how transport effects our quality of life, which is covered in the Sustainability and Quality of Life chapters.

We are going through large changes in the transport sector. Our society, economy and environment are all rapidly changing and as a result, the way we travel and the way we will work and shop in the future is also changing.

Policies

This section provides a summary of the policies in this chapter.

Policy 1
We will plan and prepare the county for future challenges and changes to ensure the best for our society, environment and economy, and to actively review these developments through time.

What this means in practice:

- Future changes and challenges in Norfolk may be different from other parts of the country so solutions should be found that are tailored to Norfolk's needs. Working with communities and companies to predict, and respond to, changes can also boost the local economy.
- Norfolk will be best placed to identify and respond to future challenges. We will be able to take a leading role in preparing for the future, and not be left behind the rest of the country.
- Appropriate evidence and data gathering will enable us to identify future challenges and help us react faster to these changes, and therefore avoid the negative consequences.

Policy 2
The priority for reducing emissions will be to support a shift to more sustainable modes and more efficient vehicles, including lower carbon technology and cleaner fuels; this includes the facilitation of necessary infrastructure.

What this means in practice:

- We will facilitate changes in the ways that people travel so that people choose to travel more by walking and cycling or new travel modes like e-bikes and e-scooters.
- We will work with partners in the private sector to make sure that the necessary infrastructure for cleaner vehicles, like charging points, is put in suitable places and are sufficient to encourage people to take up the use of these vehicles. This could include working with the private sector to create a market to provide charging points that satisfies and promotes the demand for electric cars; or to work with passenger transport operators to promote the conversion from diesel operation to electric bus and rail operation.
- Working in partnership to support and deliver infrastructure will enable the council to take a leading role for the market to follow, without shouldering the full financial burden.
- Our Electric Vehicle (EV) strategy will help us build EV technology into future infrastructure decisions. EV technology is integral to achieving environmental targets and carbon neutrality.

Policy 3
Innovation and new technologies will be embraced and used proactively in order to achieve our vision, including responding to new targets set by the recently adopted environmental policy.

What this means in practice:

- We will lead in trialling new technology suitable for Norfolk and learn from developments elsewhere. We can build strong partnerships with other sectors that will make Norfolk more resilient to environmental challenges.
- This might mean the use of apps, where the technology is robust, for monitoring how people use the network, or to monitor air quality, or innovative solutions to encourage electric vehicles or e-scooters. Trials of e-scooters are underway in Norwich and Great Yarmouth. These trials, alongside others across the country, will help to inform future government legislation about this new type of vehicle.
- The use of new technology will come forward more quickly if we are not reliant on other places adopting it first and might not be suitable for Norfolk. New technology is going to be vital in monitoring success on interventions, so money isn't wasted on projects that don't work for Norfolk.
- We will make the most of data from work done at other locations but also lead in trialling innovative technologies and share information.
- Sensors, apps, data, and surveys can better inform where we target our future budget for maintenance, safety and accessibility and sustainability, which will be covered further in the later chapters.

Policy 4
We will work with people to shape the way they travel, why they are travelling and whether they need to travel, encouraging behaviour change and interventions that can help to increase the use of sustainable transport.

What this means in practice:

- The support of people and communities is vital in making successful interventions in sustainable transport. People need to understand and support changes to encourage uptake of sustainable transport. If infrastructure changes are made without the support of Norfolk residents and businesses, they will be less successful, and it will take longer to see any benefit from investment.
- We will engage with communities to understand their needs and encourage and assist people to use more sustainable transport. This includes working with residents of new developments through our AtoBetter programme. How to influence the design of new growth is dealt with in Chapter 5: Delivering a Sustainable Norfolk.
- Covid-19 has accelerated changes in behaviour. We continue to monitor impacts on people's travel and will use this information to enable us to better plan for changes in travel behaviour.

Introduction

Our population and economy are growing and shifting in form, technology is developing fast and increasingly offering new solutions to help solve the social, economic and environmental issues we face.

Environmental policy is setting targets that need to be achieved in ambitious timelines. This chapter covers the challenges, changes and trends transport is facing now, and in the future. We are setting policies that will shape the future of transport and the technologies which will help ease congestion and emissions and improve safety, accessibility and movement in our county.

The chapter also covers behaviour change: what it is, why we need it and how it can help in adapting to and mitigating climate change in the future. The transport sector is the most polluting sector in the UK hence it is vital that we do everything we can to change this in order to reduce our impact on the climate and all the social, environmental and economic consequences that come with this.

It is difficult to predict the future. This is perhaps especially difficult now, given that Covid-19 has had a major disruptive impact in the way that people live, work and travel. However, Covid-19 also shows that people are adaptable to change and has – in many respects – simply accelerated changes, like working from home, that society was in any case going through. This chapter sets out some of the things which could be expected in the years to come. Our population is growing, becoming older and moving to urban centres (although there is some evidence of change to this trend recently). Our lifestyles are becoming more instant and less structured. Our technology is advancing and has the ability to combat the challenges we may face in the future; or react more quickly to change. Our society has the power to make rapid changes to also overcome the challenges of the future.

Evidence and Challenges

Along with the rest of the UK, the population of Norfolk is growing. Currently, Norfolk has a population of 900,000 people. By 2036, this is expected to be over one million. The growth in population needs to be managed if it is not simply to increase pressure and demand on the transport network.

Road traffic growth could have negative effects on air quality, climate change, the environment, society and the economy. This can be minimised through embracing innovative new technologies, like clean fuels where people will still need to travel by car, and focusing on changing people's travel behaviours to those that are more sustainable.

In Norfolk, urbanisation is occurring with more people moving out of rural parts of the county and into the urban centres such as Norfolk's towns and Norwich city centre, although we are seeing evidence that the pandemic might change this. Unless we help people to use more active travel modes, there could be an increase in congestion and higher levels of air pollution.

As people in urban areas and market towns might not need to commute as far for work, cycling and walking will be a more feasible option. Public transport is often well connected in urban areas where transport hubs and interchanges can be found.

We have seen an increase in people walking, cycling and using other forms of active travel recently, especially, during Covid-19 lockdown. New options such as e-scooters are becoming increasingly popular even though, at present, their use is very strictly limited. Through being acceptive of change and encouraging innovation and technology, these moments of change can be harnessed, and have beneficial impacts on the transport network and environment.

Many people live outside our urban areas and market towns, and face challenges of accessing jobs and other services, particularly if they do not have a car. These issues are covered further in Chapter 8. This chapter considers how technology might help people be more connected: through better broadband to enable virtual connections; through electrically assisted cycles, which extend the range of bike journeys; or bus information through phone apps.

> The LTP consultation showed that people in rural areas are concerned by the unreliability of the bus service, particularly where older people have to wait outside, not knowing when or if a bus will turn up

Norfolk's population is also ageing. With this comes transportation problems and an increasing risk of isolation. The most common transport issues for elderly people, as identified by Age UK, include:

- The lack of sufficient transport links for elderly people in rural locations to healthcare and other vital services
- Transport not being convenient or comfortable for elderly people
- Lack of encouragement to use more active modes of transport for both physical and mental health.

In the UK, the population aged 65 and over increased by 37% in rural areas between 2001 and 2015 and increased by 17% in urban areas. Rural areas are often disadvantaged in terms of access to services and activities due to the low population density in these areas making the provision and maintenance of service infrastructures difficult and expensive. There is some evidence that, because of the pandemic, there has been an increased demand for people who want to move to rural areas.

Society and the economy are changing. People are behaving differently, due to various external factors such as improved technology and communication, meaning people do not have to travel as much or as far. We have seen an acceleration of this behaviour recently during Covid-19 restrictions. The average number of trips per person across all journey purposes and modes shows a downward trend in the UK. These trends are showing a decrease in trips for work, education, shopping, visiting friends and relatives and personal business between 2001 and 2016. New technologies and ways of communicating such as Skype, online shopping and the ability to work from home are influences on this.

In England there has been a 24% drop in shopping trips between 1995/97 and 2013

Trends are showing that the gig economy has more than doubled in size over the past three years. This is a labour market characterised by the prevalence of short-term contracts or freelance work, as opposed to permanent jobs. The gig economy is driving a shift away from the traditional nine to five working hours and hence rush-hour congestion could ease. The gig economy can also alter people's personal behaviours as it enables near-instant services such as Uber and Deliveroo. Changes to how people work is also influenced by the ability to work from home. Thanks to new super-fast connectivity technologies, it is now easier than ever to work from home by using laptops and carrying out video conferences. With the growth in popularity of flexi working, or the closure of office accommodation by employers following Covid, the future could see a decline in the peak congestion times and rush hour when people start and finish work: a growing number of people will be commuting at different times or not needing to commute at all.

Popularity in ordering goods online has dramatically increased within the last few years. Due to this, fewer people are making journeys to retail areas which could in the future take more vehicles off the road. However, increasing online purchases could see an increase in delivery vans or lorries due to a higher quantity of deliveries being made.

Another behaviour trend is delayed car ownership. The percentage of young people obtaining driving licences has decreased in the last 20 years. This could be put down to the high cost of learning to drive, high cost of insurance for young people and the financial insecurities of millennials. Alongside this, technological change is also influencing the trend and reducing the need to own a car.

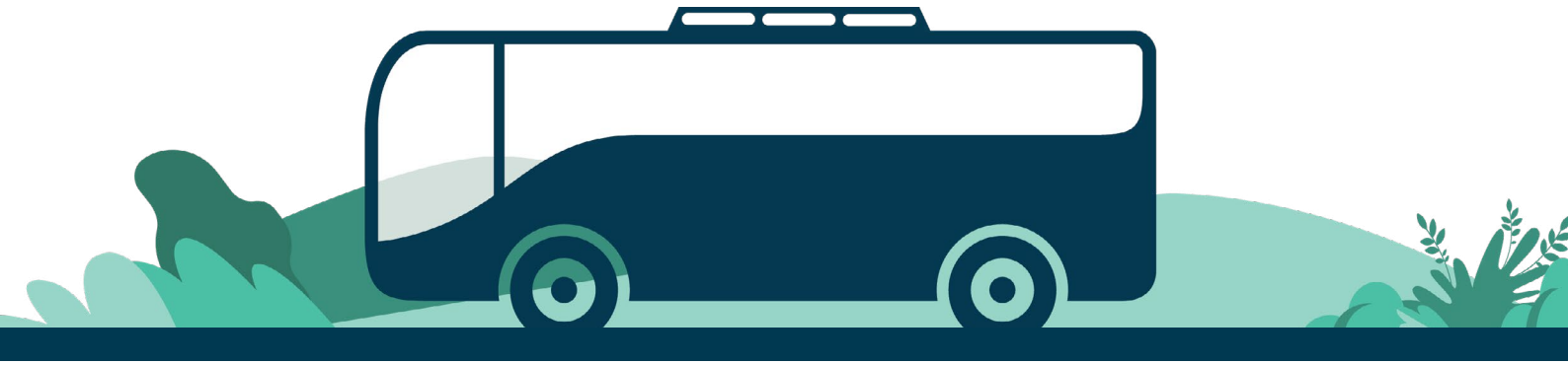
Young people especially are increasingly aware of climate change. This awareness is only expected to grow in the future and hence cycling, walking and public transport could become more popular as these are more sustainable modes of transport.

As Norwich in particular has a large young student population, it is likely to see an increase in the usage of these forms of transport as they are cheaper and align with the climate conscious attitudes of the young. However, Norfolk on the whole is a rural county which makes transport via these more sustainable modes difficult for those living in rural areas and the elderly. It is therefore vital in the future that Norfolk embraces new technologies to enable those in rural locations to also move in a low-carbon manner.

Technology, innovation and behaviour change have the ability to bring about rapid change when used together.

Strategy for delivery

- Plan and prepare for future changes and challenges. We will embrace new initiatives where these have positive benefits for Norfolk. This might include initiatives such as the use of autonomous vehicles, but we will only do this where it can be demonstrated that these initiatives will bring positive benefits
- Be proactive in using new technology and new methods, for monitoring outcomes, information provision and in our delivery, where these are shown to be robust and effective
- Support a shift to more sustainable modes and more efficient vehicles, including lower carbon technology and cleaner fuels
- Help people to effect a change in the way that they use the transport system to one that is better for the environment, and people's mental and physical well-being.

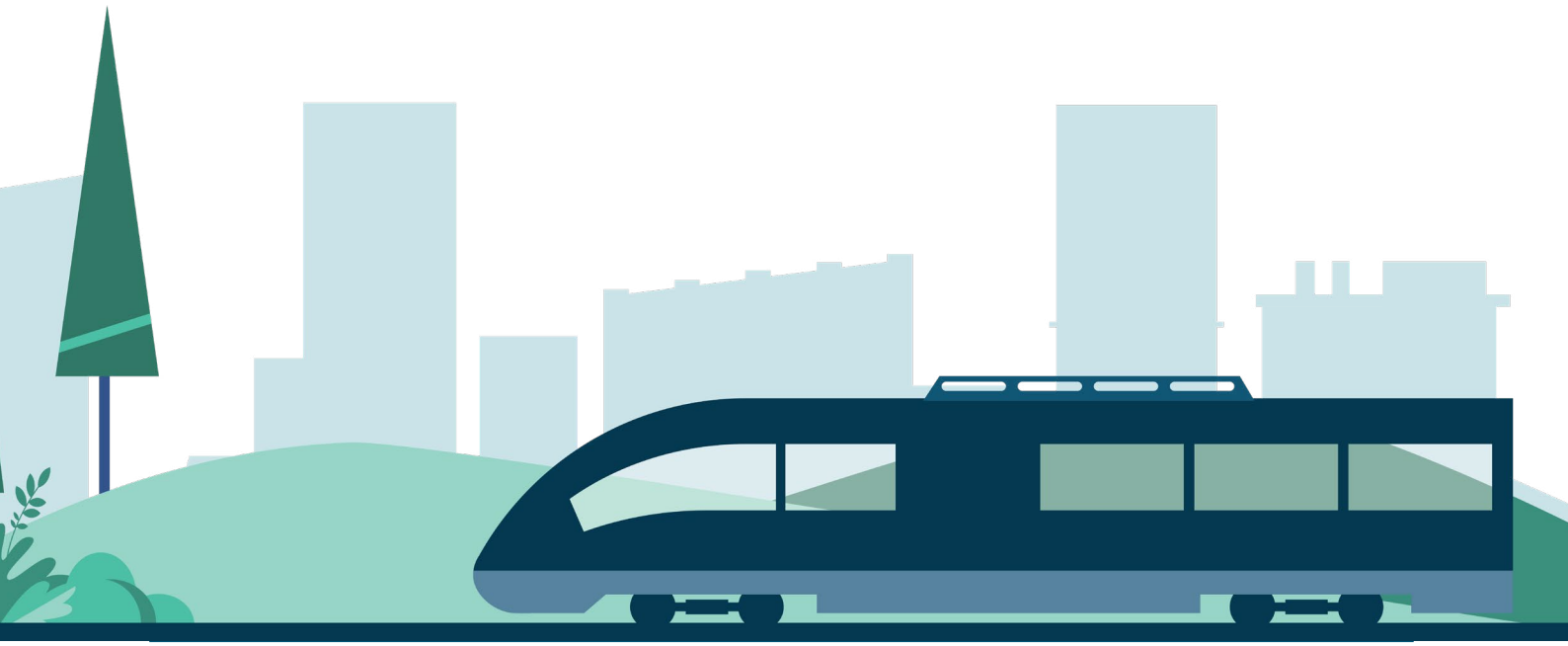


Planning for change

Policy 1
We will plan and prepare the county for future challenges and changes to ensure the best for our society, environment and economy, and to actively review these developments through time.

Given its unique geography and socio-demographic make-up, Norfolk will face its own unique challenges. The Local Transport Plan sets out how we will respond to these, whether they be from climate change or lack of rural access to services. Appropriate evidence and data gathering, together with working with local communities, businesses and other interests, will enable us to identify future challenges and help us react more quickly to these changes.

It will be necessary to understand what these future challenges might comprise and be prepared to be agile to act to find tailored solutions. Evidence and data gathering will enable us to identify future challenges and help us react faster to these changes and monitor outcomes. We will take a leading role in preparing for the future, being pro-active in our use of innovation and new technology to ensure that the county is not left behind.



Technology

Policy 2
The priority for reducing emissions will be to support a shift to more sustainable modes and more efficient vehicles, including lower carbon technology and cleaner fuels; this includes the facilitation of necessary infrastructure.

Technology has the potential to reduce transport congestion and emissions and improve safety, accessibility and mobility. Technology therefore plays an important role in shaping how the future of transport will look both in Norfolk and all over the world.

The 2030 ban on the sale of all new petrol and diesel cars and vans will promote the uptake of electric vehicles, which are already becoming popular. The UK government aimed to invest £1.5billion in ultra-low emission vehicles by 2021, further evidence to suggest that a growth in these vehicles can be expected in the future.

UK Climate Change Committee analysis shows that technological change alone is not enough to reach the UK's net zero goal, social transformation is also required.

Currently, Norfolk lacks an extensive electric vehicle charging network. Most local authorities, including Norfolk County Council, lack the funding and expertise to provide facilities although the market is increasingly providing charging points. With the phasing out of petrol and diesel vehicles and increasing interest in low-emission vehicles, it is likely this will be increasingly rolled-out. Charging points tend to be focussed in urban areas and town centres where there will be most usage. These are also usually the areas with the poorest air quality. The county council has developed an EV strategy that sets out how the council can help facilitate growth in the number of EV charging locations across the county. The county council already works with developers and district councils the planning authorities, on provision in new developments.

The county council is also refreshing its walking and cycling strategy. This responds to government's recently published Gear Change which sees England as "a great walking and cycling nation" with "half of all journeys in towns and cities being cycled or walked by 2030."

Policy 3
Innovation and new technologies will be embraced and used proactively in order to achieve our vision, including responding to new targets set by the recently adopted environmental policy.

We are going through a revolution in transport. Applications like Google mapping have collected data on a scale that could not have been envisaged a decade ago. Trials of autonomous vehicles are ongoing; many vehicles on the road today have technology such as lane-assist systems, adaptive cruise control and self-parking that enable them to be semi-autonomous. Such systems can place demands on the transport network, and will affect how we manage and maintain the transport network in the future, but utilization will make the networks perform more efficiently.

The government is investing significantly into the research and development of Connected and Autonomous Vehicles (CAVs), also known as self-driving or driverless cars or other vehicles. Over time, CAVs are likely to have numerous impacts on how we move people around and how we manage highways. These include:

- Providing opportunities for people to connect
- Improving access, especially for those unable to use traditional vehicles. This consequently reduces isolation especially in rural counties such as Norfolk
- Improving road safety through sensors and communicating with other vehicles
- Reducing congestion by using intelligent technology such as planning routes to avoid traffic and communicating with other vehicles on the road network.

Innovation in the bicycle industry is also shaping the future of transport. E-bikes are becoming increasingly popular as they make cycling accessible to different abilities, make journeys faster and more comfortable and make journeys less exhausting by assisting the rider. A growth in e-bikes in the future would mean a greater demand for safe cycling infrastructure on key routes and a reduction of congestion and carbon emissions, especially in urban areas. (Policy 15, in Chapter 8: Increasing Accessibility, sets out our ambitions and intentions for active travel measures.)

In Spring 2020, Norwich launched its own bike sharing scheme called 'Beryl Bikes'. This placed 600 (manual and electric) bikes on the streets of Norwich

An increase in bike sharing schemes is also leading to the growth of cycling as it makes biking easier, cheaper and more convenient which has the potential to prompt a modal shift towards cycling. Bike sharing initiatives promote the cultural shift towards more sustainable living. Therefore, a future scenario for Norfolk would be improved accuracy in data for popular cycle routes to make informed decisions and plans, increased cycling in urban areas, especially areas with access to bike sharing schemes.

Developments in technology and data collection have also led to the creation of smart traffic management systems. These are systems where centrally controlled traffic signals and sensors regulate traffic flow through a certain area in response to demand. This technology is able to reduce congestion and emissions as it is able to alter signals as and when it is needed and facilitates more efficient driving. Smart traffic signals are able to sense the type of vehicles in a certain traffic flow and hence in some cases provide bus priority. In the long term, this has the potential to make public transport more reliable and possibly change people's perceptions of public transport, prompting greater uptake in its usage.

Advancements in technology and data collection is enabling the growth of Mobility as a Service (MaaS) and seamless transport. MaaS bundles a variety of transport modes together and enables you to plan, pay for and use the modes of transport via one app or card. This makes the use of public transport far easier and seamless hence making it a more attractive choice of travel.

Norfolk is beginning to move towards this with relation to bus services with the AtoBetter journey planner. It is therefore likely that in years to come, multi-modal services will be increasingly used in our county.

Behaviour Change

Policy 4
We will work with people to shape the way they travel, why they are travelling and whether they need to travel, encouraging behaviour change and interventions that can help to increase the use of sustainable transport.

People's behaviour is often deeply engrained. We need to make it easier for people to change their habits and make sustainable choices about how they choose to travel. This requires more than just infrastructure improvements.

Behaviour change in transport is capable of reducing people's dependence on cars in order to reduce congestion and emissions, and increase the use of active modes of transport, all of which have a positive impact on our environment and health and wellbeing. This means working with people and communities in understanding their points of view and working up solutions together with engagement on development and delivery of individual interventions. Behaviour change initiatives, used alongside transport provision, will ensure that infrastructure is used to its full potential.

Integrating behavioural change strategies into transport developments will enable substantial shifts in how we travel. The Department for Transport states that to be successful in enabling change, new behaviours should seem:

- More advantageous: perceptions of costs and benefits change
- More 'me:' behaviour fits in with perceptions of self or aspirations
- More prevalent: increased awareness of who else is doing it
- More doable: increased confidence in ability to change.

OR it should make people's old behaviour seem less of any of the above.

We will engage with communities to understand their needs and encourage and assist people to use more sustainable transport. This will be done as part of our transport delivery to reduce impacts on the environment and benefit society and the economy.

Chapter 5:
Delivering a Sustainable Norfolk

Introduction and chapter summary

This chapter deals with:

- Growth. Consideration of where new development should go to be best placed for the needs of communities and residents.
- Economy. Ensuring good links to services, jobs, education and skills by sustainable transport methods.

The chapter sets out that:

- As a council we need to meet the needs of the present population of Norfolk, local businesses, and tourism industry without restricting future growth and our ability to meet the demands of future generations. This includes making sure we respond to changes in government policy on development to make it work for Norfolk.
- New developments must consider whether they are in an air quality management area (AQMA), where air pollution is above national targets. Where we have declared an AQMA an action plan sets out measures to work towards an improvement of the air quality in the area. Therefore, this should be considered in the location of new development so increased travel doesn't cause further problems. Air quality is also covered in more depth in the Quality of Life chapter.
- We need to embrace new technology to monitor and respond to how journeys are changing to inform how we respond to the developing needs of existing and new communities. Using technology to inform travel plans.

Public highways and transport networks have a significant influence in shaping the place in which we live. Transport infrastructure connects communities and services together and plays a vital role in the way people move around and access the wider world. It also plays an essential part in the economic vibrancy of Norfolk connecting us to each other and the rest of the country.

Policies

This section provides a summary of the policies in this chapter.

Policy 5
We will work with partners to inform decisions about new development ensuring they are well connected to maximise use of sustainable and active transport options. This will make new developments more attractive places to live, thus supporting a strong sense of the public realm.

What this means in practice:

- We will work with partners to try to ensure that new developments are located in suitable areas with access to services and leisure facilities via sustainable and active transport and not in areas that would be reliant on the private car.
- If this were not the case, people will be reliant on private cars or, if they don't have a private car, are likely to struggle to access services, leading to social isolation and economic disadvantage.
- We will seek to ensure new developments are well-connected to bus networks: it can be difficult to add or change bus routes after a development has been inhabited, and changes to routes could take a long time to introduce.
- New developments with insufficient transport options could lead to social isolation and the inability for people to access services.
- Development without considering transport first could lead to unnecessary congestion and strain on the highway network causing more problems in the future.

Policy 6
We will work with the development community and local stakeholders to ensure greener transport solutions are embedded in land-use planning to significantly reduce traffic generation by private car. We will also work to ensure that the necessary infrastructure to support the transition to a clean transport network is in place. We will seek that that any carbon impacts are monitored and offset by locally applicable measures. As part of our ongoing work on developing guidance for how we will deal with new development we will amongst other things consider how to establish carbon plans and budgets and devise methodologies to achieve carbon neutrality.

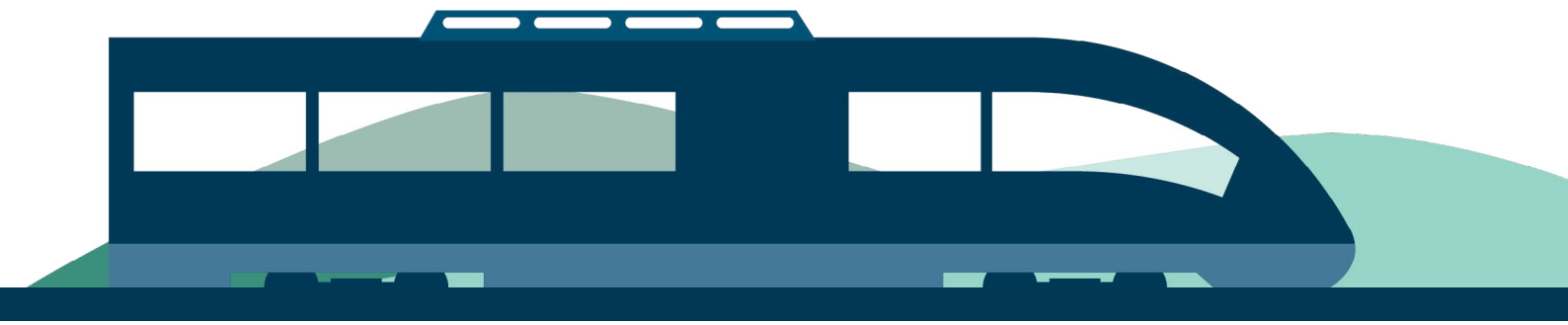
What this means in practice:

- The county council will engage and work with partners to ensure, where we can, that: development is planned with active and sustainable travel in mind; we secure contributions to active travel infrastructure from developers so that negative impact from developments is minimised; travel plans for new developments are secured and enacted; and carbon (arising from travel to and from the new development) is taken into account.
- We will seek to ensure that measures supporting an uptake of cycling and walking, or by bus, in communities are provided as part of the development. Without developer contributions cycleways to encourage active travel and reduce reliance on private cars can be delayed until funds can be found, or not built at all.
- Development can put unnecessary strain on the network without interventions such as road improvements to access the development without disrupting through traffic.
- We are, however, only able to secure measures that directly mitigate the impact of a development as defined by a planning consent.
- The way that these contributions are secured in the future might change as government reforms planning.

Policy 7
In air quality management areas development will need to demonstrate its positive contribution to tackling the air quality problem.

What this means in practice:

- Air quality management areas are places where the national air quality objective for a specific pollutant is exceeded. New developments will not automatically make these emissions worse but could provide funding to provide positive intervention such as new cycle routes and footways to local amenities and schools so fewer existing and new residents need to use cars.
- We could simply raise an objection to planning applications (on which we are consulted as highway authority) where they fall within an air quality management area, but this would constrain housing from coming forward, particularly in locations where it is otherwise well-sited. The preferred policy will result in new developments helping to address air quality problems. It would mean that developers would need to demonstrate how development would address air quality or bring forward measures to address the issue. The National Planning Policy Framework requirement is for a proposed development to mitigate the impacts on air quality only.
- Interventions made by new developments can help air quality with sustainably built housing (eg including electric vehicle charging points) and interventions such as putting in place robust travel plans, car sharing schemes and better broadband (to minimise travel).



Achievements

- We have a strong track record of working in partnership with Local Planning Authorities to develop planning policy such as the Greater Norwich Local Plan. The county council is a partner in the process to help develop and influence that plan to align with county transport objectives.

- AtoBetter is a sustainable travel scheme that works with the community to offer free travel advice to aid people make the best travel choices. This is helping people make journeys as easy as possible and enables more journeys by foot, bike, public transport and car sharing.

- Bringing forward and supporting large growth areas. New ways of working to deliver growth and bring forward strategic infrastructure together, levering in both public and private investment. Working with Transport East, Long Stratton bypass and West Winch Housing Access Road – both required to enable housing growth – have been identified in the Major Road Network programme for government funding.

- Attleborough, Thetford and Great Yarmouth Growth Deal: Success in securing growth deal funding through the New Anglia Local Enterprise Partnership capital growth programme. This included packages of measures to reduce traffic congestion and improve sustainable transport in order to sustain and bring forward economic growth in the towns.

Evidence

The economy of Norfolk has particular strengths in sectors such as agri-tech and clean energy but lags behind in other areas. Across Norfolk house-building rates are insufficient to meet the calculated need for housing. Investment in housing and jobs growth can be constrained by perceptions that Norfolk is cut-off from the rest of the country; or because significant improvements to the local networks need to be provided to make the developments acceptable, but these cannot be afforded making the development slow to come forward. (Connections between major places within the county, and to major places outside, are dealt with in Chapter 6: Enhancing Connectivity.) As well as encouraging and enabling housing and jobs growth in the right places to come forward, we need to ensure that this growth is sustainable and does not lead to worsening problems.

The Norfolk Strategic Infrastructure Delivery Plan sets out Norfolk's priorities to help deliver significant economic growth in Norfolk for the next ten years. This is a coordinated approach to growth and transport investment to unlock potential and link people to jobs, homes and local amenities.

District Councils' local plans set out the housing requirements and details of where this, and economic growth, is planned. The county council works closely with district councils in the preparation of these plans and is a consultee on individual planning applications. How government takes forward its Planning for the Future White Paper, August 2020, might affect the strategy for delivery in the future. However, government has not yet finalized the full detail of changes to the planning system so it is not clear what changes this could mean for local authorities. This will continue to be monitored and our strategy could be amended accordingly. Natural England released policy for Norfolk Local Authorities to follow to make developments nutrient neutral, March 2022. When nitrogen and phosphate nutrients enter water systems it can cause excessive growth of algae, making it harder for aquatic species to survive. The implications of this policy will continue to be monitored to assess its effect on achieving the objectives of the Local Transport Plan 4.

Challenges

- We must ensure that the impacts of development are fully met to maintain the function of the transport networks
- Delivering housing need in locations that minimise the need to travel
- Forward funding infrastructure to enable growth in the future
- Balancing growth with its transport and environmental impacts
- Over the next ten years the population of Norfolk is set to rise by approx. 50,700. With the increase in population new jobs and homes will be needed and there will be additional journeys as a result. We need to ensure these do not lead to detrimental impacts such as an increase in carbon or road congestion

- Norfolk needs to be attractive for new businesses and industries to come to the county
- Making sure that, where there is an increase in travel, the networks (active and public travel, road and rail) can cope with growth and that public transport options are available.

Strategy for delivery

- Providing advice to local planning authorities and on individual proposals to ensure development is well located and laid out in such a way that it achieves our Local Transport Plan objectives
- Consideration of new settlements to be well connected to services through sustainable and active modes of transport
- Developing the Infrastructure Delivery Plan
- Developing strategies and implementation plans for major growth locations
- Developing the case for funding to promote sustainable growth, housing and employment
- Developing transport strategies to support the vitality of town centres
- Developing our development management and design guidance to enable new growth to deliver increases in sustainable transport (including commercial bus services)
- Travel planning.

Growth and Development

To deliver the most sustainable possible growth in Norfolk, Norfolk County Council needs clear, aligned planning and transport objectives.

The county council recognises the need to develop and follow clear policies and guidance to inform the delivery of growth. Allocation of sites in local plans allows local planning authorities to identify strategic sites that will be delivered, or started, in the period of the plan. By helping local planning authorities to identify sites, we can make sure that development is well-connected to local services, and that consideration is given to the appropriate infrastructure that will be needed to deliver it sustainably.

Policy 5
We will work with partners to inform decisions about new development ensuring they are well connected to maximise use of sustainable and active transport options. This will make new developments more attractive places to live, thus supporting a strong sense of the public realm.

The county council will work with – in particular – the development industry and district councils, who produce local plans, to seek that new development must: take into account access to education and schools; minimise the need to travel; support active travel; support travel planning through schemes such as AtoBetter; and enhance and protect the strategic network. We recognise the role that rural areas including market towns, key service centres and village clusters will play in housing growth.

To support clean growth, our advice will be that new sites must be in locations that promote active travel, and public transport, with good links to local services, but especially education and skills. This was reflected in the public consultation, where people showed a strong desire to see more sustainable transport options championed in the region, particularly in rural areas where this is currently a challenge. Active travel will also help air quality in areas with congestion.

We will:

- Support the production of an evidence base for planned sustainable growth
- Strengthen partnerships and provide clear guidance on the requirements of growth to:
    - Contribute to the Norfolk County Council Environment Policy
    - Promote active travel
    - Work with county council service delivery and help provide access for all.
- Support robust enforceable travel plans.

Infrastructure to Support Growth

What is Known?
The key housing growth sites and strategic infrastructure projects set out in the Infrastructure Delivery Plan

What is Unknown?
What housing allocations and growth sites will emerge from Local Plan evidence and scheme identification

Policy 6
We will work with the development community and local stakeholders to ensure greener transport solutions are embedded in land-use planning to significantly reduce traffic generation by private car. We will also work to ensure that the necessary infrastructure to support the transition to a clean transport network is in place.

We will seek that that any carbon impacts are monitored and offset by locally applicable measures. We will consider how to establish carbon plans and budgets, and devise methodologies, to achieve carbon neutrality in new developments.

As part of our work with local planning authorities on their plans, and in responding to individual planning applications, we also influence the layout and design of new housing areas. This is to ensure, as far as we are able, that they can be served by good bus links and have suitable walking and cycling (as well as general traffic) links. As part of this, we also consider things like the provision of charging points for electric vehicles in new developments. More detail on this is in our separate, more detailed development management and residential estate layout guides. Our guidance documents will be reviewed following adoption of LTP4 strategy.

We will seek to work with the development community to ensure that transport planning is connected to land use planning to significantly reduce traffic generation by private car and ensure greener transport solutions are embedded in the design process. We will also work to ensure that the necessary infrastructure to support the transition to a clean transport network is put in place as part of the development proposals. We will seek that that any carbon impacts are monitored and offset by locally applicable measures. As part of our ongoing work on developing guidance for how we will deal with new development we will amongst other things consider how to establish carbon plans and budgets and devise methodologies to achieve carbon neutrality.

Our travel planning team, AtoBetter, works with developers on the larger housing sites to agree travel plans that set out the measures that will help and encourage people to make sustainable travel choices. These plans, and their implementation, are funded by developers.

New developments in areas of poor air quality

Policy 7
In air quality management areas development will need to demonstrate its positive contribution to tackling the air quality problem.

Chapter 7: Enhancing Norfolk's Quality of Life deals with air quality in more detail. It notes that there are currently air quality management areas, where the annual average levels of nitrogen oxides (NOx) exceed recognised thresholds, in parts of Norfolk. New development in these areas could, if no action is taken, contribute to a worsening of air quality whilst also increasing the numbers of people living (or working) in areas with poor air quality. However, in other respects, these locations might be well-suited to new development because they are in places with good access to other services and facilities. We will therefore take an approach where we require developers demonstrate how their proposal can address air quality or bring forward measures to address the issue. Interventions could include sustainably built housing (eg including electric vehicle charging points), active travel networks, robust travel plans, car sharing schemes and better broadband (to minimise travel). Rather than automatically recommending a refusal to development in certain areas we will judge each development on how they propose to mitigate air quality issues.

Innovation

Norfolk County Council and the local planning authorities will need to work even closer together to deliver housing and commercial land that benefits the people of Norfolk and allows for growth in a sustainable way. We need to gather more evidence to understand what journeys people are making, and the journeys people will be making in the future, whether social, economic, or for tourism.

New ways of data collection such as sensors can better inform the decisions, and interventions, we make to ensure people can access services and leisure activities without putting additional strain on the highway network. This includes helping people access information on route planning. The use of new technology in the way we monitor air quality can help us better understand causes and therefore make the most suitable interventions in the most suitable areas, maximising investment and benefit.

Chapter 6:
Enhancing Connectivity

This chapter deals with connectivity. This refers to the major connections that people have to make:

- Between the major places within the county; and to major places outside. The strategy sets out that improvement to the major road and rail connections remain a priority for the Local Transport Plan. There must however be a shift to less polluting vehicles using these strategic connections.
- Getting to the major urban centres and market towns to access vital services that people need such as employment, education, health services and retail. For these trips, connectivity will be improved from surrounding rural areas with the focus being on clean transport modes including electric vehicles, public transport and walking and cycling.

Chapter 8: Increasing Accessibility deals with local connectivity and accessibility, such as making trips within built up areas by walking and cycling. The Quality of Life Chapter (Chapter 7) deals with how we will seek improvements to air quality and a reduction in carbon emissions. This considers aspects such as the modes of travel that people choose to make (by bus, car, etc.) and the types of vehicle that people choose, and how these might be made more efficient.

Chapter 8: Increasing Accessibility deals with local connectivity and accessibility, such as making trips within built up areas by walking and cycling. The Quality of Life Chapter (Chapter 7) deals with how we will seek improvements to air quality and a reduction in carbon emissions. This considers aspects such as the modes of travel that people choose to make (by bus, car, etc.) and the types of vehicle that people choose, and how these might be made more efficient.

Good connectivity is vital because when people choose to travel it allows them to easily get to where they need to, whether to work, education or visiting friends and families. Connectivity is especially important for businesses because delays in delivering goods, or unpredictable journey times, cost money. Without good connections to other parts of the country many businesses might not choose to stay in, or move to, Norfolk.

Policies

This section provides a summary of the policies in this chapter.

Policy 8
Our priority will be to improve major road and rail connections between larger places in the county, and to major ports, airports and cities in the rest of the UK.

What this means in practice:

- We will work with partners and make the case for investment to the rail network and trunk roads, which the county does not manage or maintain, to seek improvements
- We will seek quick, reliable journey times for longer-distance journeys where there is the highest need as we see this as important to support, in particular, our economic objectives. Initial analysis of the long-term impacts of Covid-19 suggests that these longer-distance trips will remain important over the longer-term (and might even be of increasing importance as people choose to live in places like Norfolk and visit their workplaces in the capital on a relatively infrequent basis, rather than living in London and commuting to work in the capital every day)
- Our priorities will be the A11 (bottleneck junctions at Thetford and Mildenhall Fiveways) and A47 trunk roads (dualling), Norwich Western Link, the Major Road Network (Long Stratton Bypass, West Winch Housing Access Road, A47/A17 Junction), connections to Norfolk's transport gateways (quick, reliable connections) and the rail lines connecting Norwich to London (more frequent 90 minute journeys, half-hourly frequency), Peterborough and Cambridge/Stansted (more capacity, faster journeys), East West Rail (services from Norwich via Cambridge to the Midlands and southwest England) and King's Lynn to Cambridge/London (half hourly frequency)
- Strategic connections are important for many of the businesses in the county as well as providing vital links for residents and visitors
- It is important to secure investment in their improvement to support, in particular, economic objectives. If journey times, and reliability of journeys, to Norfolk from other major places in the country do not compare well with similar places it is likely that investors would choose instead to invest in other locations, putting the economic prosperity of Norfolk at risk. Policy 9 sets out that there must be a shift to cleaner transport modes on these major links
- The importance of the above rationale will be kept under review whilst considering the long-term implications of changes arising from the pandemic, but initial analysis suggests they still hold true.

Policy 9
Our priority for improved connectivity will be that the network is used by clean transport modes.

What this means in practice:

- When seeking improvements to the strategic connections we will endeavour to secure, design and implement them in a way that encourages clean transport modes. This means low carbon vehicles including cars and buses using cleaner propulsion (eg electric vehicles) and sustainable modes such as walking and cycling
- This means we will seek to influence the choice of vehicle type or how people choose to travel instead of hoping that individuals can make an informed choice, taking into account factors like their journey's impact on climate change, rather than simply their convenience
- The chosen policy will support our environment policy and emerging government policy. The policy will help to contribute to reducing carbon, improving air quality or the better physical and mental health of people through active travel whilst ensuring that major connections – necessary to support the economy – are suitable for their strategic purpose of transport large numbers of people efficiently and effectively.

Policy 10
We will seek to improve connectivity between rural areas and services in urban centres.

What this means in practice:

- Residents in rural areas need to access employment and services, which are often based in urban areas
- To connect rural areas to the services and facilities centred within the market towns and urban areas, we will focus on improving the connections between them. This will comprise a variety of actions including: extending sustainable walking and cycling networks in the urban areas to connect with longer-distance facilities; working with public transport operators to improve services and infrastructure connecting into settlements (this is covered in the Accessibility Chapter; Chapter 8); and – recognising the significant role that car travel will continue to play in the future – improving some of the road links and connections. This ties in with our policies set out in A Well Managed and Maintained Transport Network (Chapter 10) where we state that we will prioritise main roads that have most usage
- This means that resources would be targeted to the above connections, rather than on improving connections in rural areas, which would result in improved connectivity within rural areas, but would not necessarily help people to access the urban areas and market towns
- People are increasingly working at home following changes to their habits during Covid-19 lockdown. Often, people need to make local trips to market towns and urban areas, replacing trips they would have previously combined with their journey to work. An improvement to the connections will help people to make these trips and will support the economies of the service centres.

Achievements

- ✔ Greater Anglia rail franchise has delivered:
  - New rolling stock on all routes
  - Start of Norwich in 90 services
  - Extension of Norwich-Cambridge service to Stansted Airport.
- ✔ Improved connectivity in our built-up areas:
  - Major changes in Norwich including cycle network and removal of traffic from the retail and business centre, ensuring the city centre retains its place as one of the country's top retail areas, supports the visitor economy and remains attractive for business investment
  - New bus station in Thetford
  - Improvement of walking and cycling connections between the rail station and market place in Great Yarmouth. This is a key gateway to the town and the improvements have made a real difference to the impression visitors have on arrival.
- ✔ Completion of Broadland Northway (Norwich Northern Distributor Road), fully opened to traffic in April 2018, and completion of A11 dualling (December 2014)
- ✔ Commitment to over £300m of investment from government for the A47 including:
  - Easton to Tuddenham dualling
  - Blofield to Burlingham dualling
  - Wansford to Sutton dualling
  - Thickthorn (A11/A47, Norwich) junction
  - Guyhirn junction
  - Junctions at Great Yarmouth

- Large Local Major Road Schemes are in various stages of development:
  - Norwich Western Link. The outline business case was submitted to government in June 2021. Construction is programmed for a start on site in 2023
  - Great Yarmouth Third River Crossing. Development consent and funding was secured, enabling construction to start on this project at the beginning of 2021. We aim to have the bridge finished and operational by early 2023.
- Major Road Network improvements. Transport East has prioritised Long Stratton Bypass, West Winch Housing Access Road and A47/ A17 Pullover Junction King's Lynn for funding under this stream. Government approved the outline business case for Long Stratton Bypass in July 2021 and awarded funding for the next stage of work.

Evidence

Strategic connections are important to Norfolk particularly for its continued economic success. This includes connections to London and Cambridge, and to major gateways like the London airports. These major connections, however, tend to be lengthy due in part to the location of Norfolk, but also because many are not of the same high standard as elsewhere in the UK.

The county has two major trunk road routes: the A11 and A47. The A47 is a mixture of poor standard single carriageway road and dual carriageways. This leads to inconsistency of standard, creating safety issues, as well as slow and unreliable journeys.

Compared to other parts of the country, journey times from other major places to Norfolk are lengthy. The availability of rail is poor, with many places in Norfolk some distance from a rail station. There is also a limited number of destinations available by train from the county. As a result, Norfolk has substantially lower numbers of residents commuting by rail compared to the rest of the UK.

The British Chambers of Commerce (The Congestions Question: Business Transport Survey, London) found that almost 60% of UK firms consider transport infrastructure as a major influence on their business location, suggesting that physical transport connectivity remains important for businesses.

Evidence reports, such as the A47 Economic Impact Study, completed by WSP Consultants for the A47 Alliance in 2019, show the value of good strategic connections on the major road network. This found that the Alliance's three priority dualling schemes would create an uplift in gross value added from new employment of over £330m, generate over £200m in benefits from enhanced productivity and bring about benefits of £40m in regional markets by reducing delay and congestion and increasing efficiency.

The county council is refreshing its Norfolk Rail Prospectus. This sets out in detail the ambitions of the council for rail improvements and the rationale for them. This document will be used to support our work with partners to improve accessibility and connectivity by rail. This work was put on hold until government had completed its review of the railways. Government published its white paper Great British Railways: The Williams-Shapps Plan for Rail in May 2021, setting out government's intentions for reform of the rail sector.

Challenges

- Slow road journey times on strategic east west links
- Limited rail connections, especially east west
- Methods of sustainable transport are often viewed as unsafe, particularly in rural areas
- Norfolk is a largely rural county with services focussed in market towns and urban centres
- Many parts of Norfolk experience slow and unreliable road journeys for motorists and buses, especially on congested networks in the towns and cities
- Many parts of the county are not close to rail stations, and even then, rail services have a limited number of connections
- Journey times between Norfolk and major destinations like London, Cambridge and major airports are lengthy. It can be quicker to get from London to many other parts of the country than to Norfolk, even if these places are further away from London than we are.

Strategy for delivery

The county council will continue to work with partners and key stakeholders to improve transport links such as working with the A47 Alliance to secure improvements to the A47 trunk road, the East West Rail Consortium (to link Norwich with direct rail services via Cambridge to Bedford, Milton Keynes and the south west of England), and other rail groups including the Great Eastern Main Line Task Force (Norwich to London rail link) and Ely Task Force (critical rail junction for King's Lynn to Cambridge / London services and a range of east west services). We will also work with developers, ports and Norwich Airport to make Norfolk an attractive place to live, work and run a business.

Transport gateways

Transport gateways are the major arrival points, and generally where there is a change in transport modes, from land to sea or air. These gateways are generally international, but gateways such as Norwich and King's Lynn railways stations link Norfolk to national transport networks.

Norwich Airport, Great Yarmouth Port and King's Lynn Port are the gateways in Norfolk linking people, business and freight to international markets. International connections are becoming increasingly important, both recreationally and economically. Norwich Airport provides holiday destinations in Europe via its link with Amsterdam Airport Schiphol allowing people to travel globally. The airport also allows for economic links for businesses, such as tech, financial services and pharmaceutical firms, with global markets and the oil industry. The ports at King's Lynn and Great Yarmouth allow manufacturing businesses to ship goods around the world as well as providing vital services for the offshore energy industry. Neither port, nor the airport, has rail connections. We will continue to work with the operators to improve connectivity.

Offshore energy is a major part of business in Great Yarmouth and the port is the principal support port for offshore energy in the southern North Sea. There are also important links to ports just outside Norfolk, such as Wisbech in Cambridgeshire and Lowestoft in Suffolk and other international gateways such as the Port of Felixstowe and Stansted Airport.

As with many transport modes international gateways will need to respond to the pressures of carbon reduction and clean air targets.

Strategic Road and Rail Connections

Policy 8
Our priority will be to improve major road and rail connections between larger places in the county, and to major ports, airports and cities in the rest of the UK.

The foremost road connections into the county are by the A11 and A47. These are both trunk roads and funding for improvements comes directly from government. They are maintained and managed by National Highways, formerly Highways England, rather than the county council, which manages all other roads. Similarly, rail services are currently run by private companies on a franchise basis from government. Network Rail manage and maintain the infrastructure, including the track. Often improvements to the infrastructure are needed before the rail companies can run improved services.

The focus concentrates on improvements to these strategic networks to ensure quick, reliable journey times for longer-distance journeys. Improvements to the road network will help the longer-distance bus networks. Elsewhere in the Local Transport Plan, principally in Chapter 8, we deal with how these bus links will connect into the centres of our towns and employment areas.

Policy 9, below, sets out that, whilst there is a need to improve the strategic connections, there will need to be a shift towards clean transport modes on these links.

Strategic Priority Connections

- The A11 which provides the main road connection to London and the south
- The A47 providing the main east-west road connection and route to the Midlands and north of England
- Connections to Norfolk's transport gateways: Norwich Airport and the ports at King's Lynn and Great Yarmouth
- The Norwich to London rail line, providing links to London and the south
- The Norwich to Cambridge/Stansted and Peterborough rail lines, providing links to the Midlands and the north of England
- East West Rail, supporting rail services from the east through to the south west of England including the construction of a new rail line between Cambridge and Bedford
- The King's Lynn to London rail line, providing links to London, the south and Europe via St Pancras / Thameslink
- Major Road Network: improvements to the A10, A140, A134 and A146 providing regional connections.

- A11 trunk road (bottleneck junctions at Thetford and Mildenhall Fiveways)
- A47 trunk road (full dualling with appropriate grade separation at junctions)
- Major Road Network (Norwich Western Link, Long Stratton Bypass, West Winch Housing Access Road, A47/A17 Junction at King's Lynn)
- Connections to Norfolk's transport gateways (Third River Crossing at Great Yarmouth, currently under construction)
- Norwich to London rail line (at least hourly 90-minute journeys: likely to require infrastructure improvements including – when linked to other improved services – a double track over Trowse Bridge in Norwich)
- Norwich to Peterborough and Cambridge/Stansted rail lines (more capacity, faster journeys, half hourly frequency)
- East West Rail (services from Norwich via Cambridge to the Midlands (via Bedford and Milton Keynes) and southwest England)
- King's Lynn to Cambridge/London (half hourly frequency throughout the day).

All proposed infrastructure schemes and route options will be subject to the appropriate range of assessments in their conception and subsequent phases including taking into consideration their full range of impacts, and consideration of suitable alternatives. (This would be the responsibility of the agency promoting the project.) We would seek early engagement with inter alia the statutory environmental bodies on major schemes so that impacts can be given appropriate consideration from the outset.

Clean Transport Modes

Policy 9
Our priority for improved connectivity will be that the network is used by clean transport modes.

We see the benefit of improved strategic connectivity, as set out above, because of its benefits to the county's economy and our residents, businesses and visitors. The above priorities for strategic connections will improve people's connectivity. However, improved connectivity needs to be achieved in a way that meets our other objectives, especially to reduce carbon and improve air quality. We will therefore look to improve connectivity by clean transport modes. That is, we will seek to achieve a change in the ways that people use the networks towards clean transport.

We use the term Clean Transport to talk about low carbon vehicles including cars and buses using cleaner propulsion (eg electric vehicles) and sustainable modes such as walking and cycling. Increasingly, there is a range of newer ways that people are getting about including e-scooters or, for delivering goods, delivery-by-drone or autonomous pods. We talk in more detail about how clean transport modes will be promoted in our chapters on accessibility and quality of life.

Connectivity from rural areas

Policy 10
We will seek to improve connectivity between rural areas and services in urban centres.

Most services and facilities that people need to get to are sited in our market towns and urban areas. It is important that people can get to these. We set out here how we will improve this at a strategic level; our chapter on Accessibility deals with the details of this including the local connections within settlements.

To connect rural areas to the services and facilities centred within the market towns and urban areas, we will focus on improving the connections between them. This will comprise a variety of actions including: extending sustainable walking and cycling networks in the urban areas to connect with longer-distance facilities; working with public transport operators to improve services and infrastructure connecting into settlements (this is covered in the Accessibility Chapter); and – recognising the significant role that car travel will continue to play in the future – improving some of the road links and connections. As set out above, we will have a focus on clean transport modes in doing this. Good design will be important to make sure that local walking and cycling facilities are attractive to encourage all users. The county council is refreshing its walking and cycling strategy, which will include more detail, but where possible we will seek to provide cycle lanes and footpaths away from busy roads and support their use through behaviour change work including publicity to encourage use.

Innovation

New technologies are being developed at a fast rate but we must choose the right interventions to ensure maximum connectivity in a way that benefits everyone. Innovative thinking as well as technology are needed as we must think radically in order to fulfil environmental targets.

We will trial innovative technology in different parts of the network for walking, cycling, motorcycling and car journeys by developing prototypes, preferably with local companies to also help economic development in the region. We should use technology to monitor the network to better understand which routes are used, when and why so we can then use this to inform evidence-based decisions where connectivity needs improving.

Chapter 7:
Enhancing Norfolk's Quality of Life

Introduction and chapter summary

This chapter deals with:

- Climate change. This includes the equality and social impacts of climate change and emissions and the measures for reducing carbon, increasing active travel and reducing inequalities.
- Strategies. How strategies such as The Joint Norfolk Health and Wellbeing Strategy 2018-22 and The Norfolk Public Health Strategy shape our planning.
- Travel choice and behaviour. How we can encourage cycling and walking and smarter travel choices.
- Air quality and pollution. Understanding causes to design suitable interventions working alongside behaviour change to improve conditions in air quality management areas, street design causes.
- Transport and the environment. Looking at how we can improve our built and historic environments through making changes to the transport network.
- Innovation. Using new technology and innovative ideas to improve journey planning and environmental monitoring.

This chapter deals with:

- The transport sector has the highest carbon emissions, so intervention is needed to reach our environmental target of carbon neutrality.
- There are several areas in Norfolk where air quality falls below defined thresholds due to emissions from transport.
- Priority to reducing carbon and emissions is through cleaner vehicles and mode-shift to public transport and active travel.
- We will look to enhance and conserve our built and historic environments through making changes to the transport network.
- Consideration should be given to health issues in planning decisions to promote air quality (see Chapter 5: Delivering a Sustainable Norfolk).

Enhancing the quality of life of Norfolk's residents is important. The county council wants to improve the health of its residents through improvements in air quality and encouraging active travel options to improve health and fitness. Transport is a significant source of UK greenhouse gas emissions.

Policies

This section provides a summary of the policies in this chapter.

Policy 11
When making changes and improvements to our transport network, and in working with users on how they choose to use the transport network, we will seek to understand the consequences of the decisions on meeting the collective challenge of protecting and improving our global environment to meet the environmental policy target of working towards carbon neutrality.

What this means in practice:

- The Norfolk County Council Environmental Policy, alongside national and international policies and agreements, means that we have a responsibility to meet targets to reach carbon neutrality.
- As transport is a major contributor to climate change these targets can only be met through intervention on the highway network, such as encouraging electric vehicles, and sustainable and active transport options.
- People now have a greater understanding of environmental issues and expect us to take action on climate change.
- If we did not follow the policy, it would mean that we would not make changes that would help us meet carbon targets and we would see a decrease in quality of life for future generations.
- We have adopted an Electric Vehicle strategy, which provides a framework for encouraging the uptake of these types of vehicle and provide guidance on changes to infrastructure to meet these needs.
- As part of the work on development of this plan we also commissioned work to understand the impact that measures will have on carbon reduction. LTP4 Implementation Plan develops this work, taking account of the statement in government's decarbonising transport plan that going forward LTPs will also need to set out how local areas will deliver "ambitious quantifiable carbon reductions in transport, taking into account the differing transport requirements of different areas."

Policy 12
Our priority for tackling air quality will be to take action to improve air quality, including investigating vehicular restrictions or charging, where air quality falls below the threshold for Air Quality Management Areas. We will also embrace new ways of monitoring air quality to inform interventions, including in other areas, where this is deemed necessary.

What this means in practice:

- Air quality is integral to health and wellbeing. Good air quality enables communities in locations where people want to live and spaces people want to visit. The recent Local Transport Plan consultation showed that there is support for restricting the most polluting vehicles from entering town and city centres.
- If we took no action, urban centres would not achieve air quality targets and will also become places people don't want to visit, widening the gap between quality of life in urban and rural areas. Budget is not unlimited so priority should be given to the areas with the worst problems.
- Road transport accounts for a third of NOx emissions and is the dominant source in urban, heavily-trafficked areas. The European Environment Agency estimates that road transport contributes to excessive concentrations about 70% for nitrogen dioxide (NO2). Therefore, transport modes are integral to achieving environmental targets.
- Monitoring outside schools has not shown breaches of the air quality thresholds (where it is shown to be harmful to human health and requires declaration of a management zone). Therefore, we are not proposing to prioritise action outside schools specifically because of air quality. However, we do intend to be more innovative in our collection of data, which should allow a better understanding of air quality outside schools and will also look to respond to school issues either on an individual basis where problems are found, or collectively through implementation of our policies for – amongst other things – mode shift and cleaner vehicles.

Policy 13
We will seek to improve quality of place, conserving and enhancing our built and historic environments, when we take action to improve the transport network.

What this means in practice:

- The way a community is planned, designed, developed and maintained all affect the quality of life of people living and working in it, and those visiting.
- Therefore, a sustainable and healthy transport network is an important part of making Norfolk an attractive place for people to live and work and visit.
- Where we live effects our health and wellbeing and Norfolk residents deserve to live in healthy communities and have healthy transport options.
- Transport networks should remain functional, but budget needs to be targeted in areas that improve quality of life in order to achieve wider outcomes such as better physical and mental health of people, to encourage the tourist and visitor economy, to protect the unique characteristics of our places, and to encourage economic investment and sustainability into areas. Interventions to ensure functionality of the network are covered further in the Maintenance chapter.

Achievements

- Norfolk County Council has been working with district council partners through an Air Quality improvement network to develop and deliver a countywide approach, reducing transport emissions being one shared objective.
- Norfolk County Council adopted an Environmental Policy in November 2019. The policy supports the aims of the government's environmental plan and has 'Supporting initiatives that lead to clean air, such as developing new proposals within the forthcoming Local Transport Plan and its supporting strategies' as a key objective.
- The Norfolk Cycling and Walking Strategy recognises that cycling and walking are not only good for the environment but also our children, our health and our economy so the strategy looks at Norfolk County Council's work to support them both now and in the future. This strategy is currently being refreshed.
- AtoBetter is run by Norfolk County Council but funded by developers to make journeys as easy as possible and enable more journeys to be made by foot, bike, public transport, car sharing, and to reduce the need to travel in the first place.

Evidence

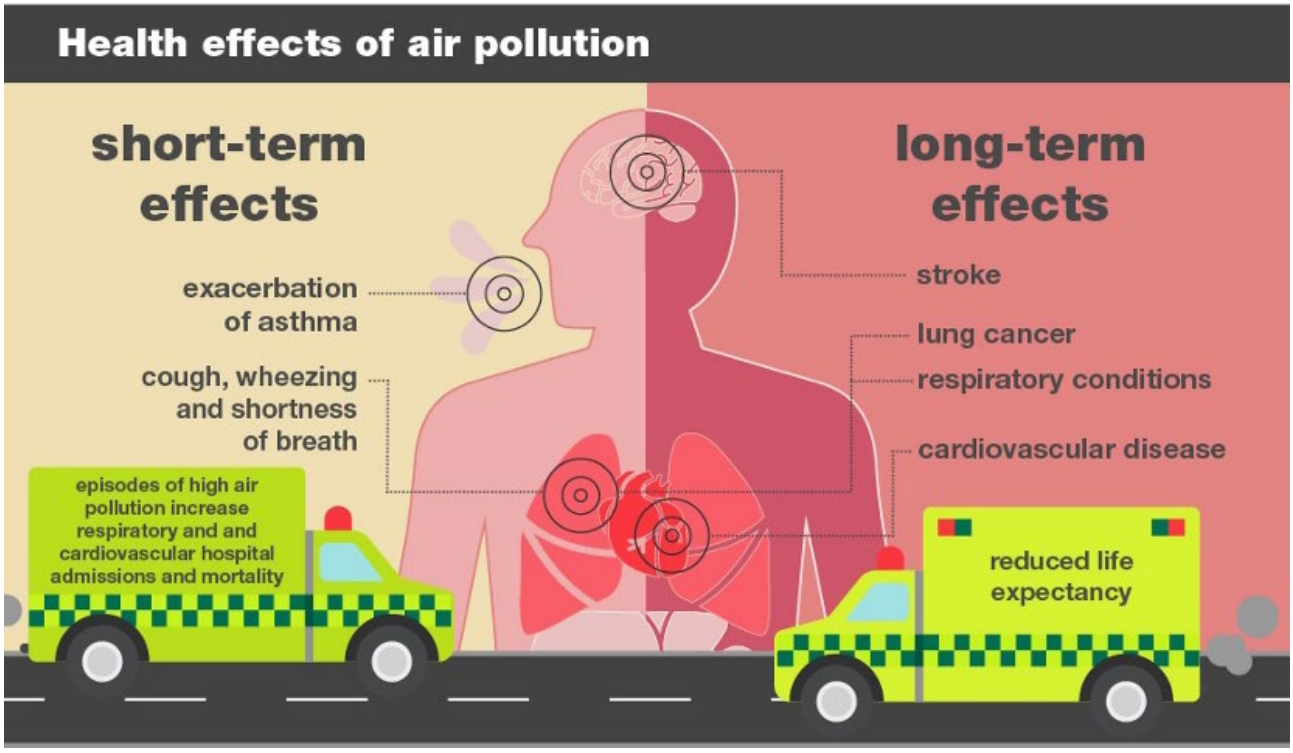
There are various government policies which impose targets on international, national and local scales. These targets are often linked to emissions and due to transport being the most polluting sector in the UK. These targets have a large effect on transport behaviours as this is where the most emissions can be cut.

International agreements and policies are influencing what the future of transport looks like. For example, the Paris Agreement 2015 is a United Nations commitment to keep global temperature rise to well below two degrees Celsius above pre-industrial levels. This will influence the future of transport and provoke a widescale increase in low-carbon modes of transport, with growing encouragement for the usage of public transport, cycling, walking and electric vehicles (EVs).

The Cop26 Declaration 2021 shows that the UK is committed to working towards 100% new zero emission vehicle sales by 2035 at the latest in leading markets, and by 2040 globally. This declaration was signed by signed by national governments, states, regions, cities, vehicle manufacturers, businesses, investors and civil society.

The UK saw a 32.6% rise in the number of EV registrations in August 2019

Similarly, national policies are shaping the future of transport in the UK. The Climate Change Act 2008 sets the target for the UK's net carbon account for the year 2050 to be at least 80% lower than the 1990 baseline. As well as this, the UK's 'Road to Zero' strategy bans the sale of all new diesel and petrol cars and vans from 2040 in order to move towards EVs and reduce greenhouse gas emissions. This was brought forward to 2035 in order to make the 2050 emissions target more achievable. More locally, Norfolk has made emissions commitments of its own. The recent (2019) Norfolk County Council Environmental Policy sets a carbon neutrality target for 2030 which will result in large changes to the way we move people, goods and services in Norfolk and will require rapid decarbonisation. Norfolk County Council has adopted its Electric Vehicle Strategy to encourage the uptake and ownership of EVs.



The EU Air Quality Directive (EU Directive 2008/50/EC) sets legally binding standards for the condition of air in outdoor environments. In the UK district councils are required to regularly review and assess air quality in their area. This has led to Air Quality Management Areas being declared in parts of King's Lynn, Swaffham and Norwich. These have been declared because the annual average levels of Nitrogen Oxides (NOx) exceed recognised thresholds. There are action plans in each of these areas designed primarily to reduce emissions from traffic, improve traffic flow and support public transport and active travel options.

Data shows that, in terms of estimated fuel usage, Norwich is much lower than other parts of the county and has a lower use of diesel engines. However, air quality is also affected by background levels of pollution, traffic flows, street design, engine idling and in some cases types of green infrastructure. It can also be localised and affected by weather. Consequently, transport solutions may need to consider not only absolute volumes but also factors which may trap or otherwise cause build-up of pollutants which may otherwise be dispersed more rapidly. It is important to make sure we can measure air quality so that we can successfully manage it.

Challenges

There are issues with pollution from vehicles causing both local air quality issues and contributing to climate change. CO2 can be reduced, and air quality improved, by replacing petrol and diesel by electric cars although, beyond the remit of this plan, there will be a need to ensure that the emissions aren't displaced to the power generation for charging these vehicles; and that other environmental impacts, such as materials required for batteries, are minimised. There is currently limited infrastructure to support a significant uptake in electric vehicles and the technology is developing at a fast rate.

Options for how people and goods move across Norfolk is often restricted as we are a dispersed and rural county. It is difficult for some people to get to services, and there are limited alternatives to the car, especially over longer distances in large areas of Norfolk. Therefore, some approaches that can work in urban areas are more difficult in rural areas where there is currently no obvious alternative to the car.

Behaviour change is important to encourage more people to use sustainable transport but can take time and cannot be done in isolation. Reducing single occupancy car journeys in urban areas can be achieved through a modal shift alongside provision of viable alternatives.

The county council adopted an Environmental Policy including an aim to work towards becoming carbon neutral by 2030. The Local Transport Plan sets out the strategy for how we will achieve this. The implementation plan sets out specific targeted interventions taking account of government's decarbonising transport plan, which stated that LTPs will need to set out how local areas will deliver "ambitious quantifiable carbon reductions in transport, taking into account the differing transport requirements of different areas." It is likely that, to be successful – and also to make improvements to air quality – we will all need to change how we travel.

The county council's plan 'Together for Norfolk' sets out Norfolk County Council's ambitions between 2019 and 2025. The priorities outlined in this document include:

- Focusing on inclusive growth and improved social mobility
- Encouraging housing, infrastructure, jobs and business growth across the county
- Developing our workforce to meet the needs of the sectors powering our local economy
- Work to reduce our impact on the environment.

Strategy for delivery

The Joint Norfolk Health and Wellbeing Strategy 2018-22 has a 'prioritising prevention' as a key objective both at a policy level and in decision making. The Norfolk Public Health Strategy prioritises public health action which will:

- Promote healthy living and healthy places
- Work towards the design of healthy streets
- Protect communities and individuals from harm
- Provide services that meet community needs
- Work in partnership.

Specific actions arising from this strategy include:

- Considering health issues in planning decisions and associated policies (including transport policy)
- Increasing physical activity
- Promoting open space, active travel and collaborative approaches to improving air quality
- Addressing the current inequalities in access to a sustainable transport system
- Addressing air quality issues and the impact of air pollution on inequality.

Climate Change

"Effective and proactive planning can mitigate the threat of climate change impacts on transportation systems" – International Transport Forum, 2016

Summer

Warmer and drier with an increased occurrence of heatwaves

Winter

Warmer and wetter with an increased occurrence of flooding, storms and extreme winds

Sea level rise

Leads to an increased rate of coastal erosion and increased occurrence of storm surge events

Policy 11
When making changes and improvements to our transport network, and in working with users on how they choose to use the transport network, we will seek to understand the consequences of the decisions on meeting the collective challenge of protecting and improving our global environment to meet the environmental policy target of working towards carbon neutrality.

Transport is the largest emitter of carbon in the county and, in recent years, emissions have been rising. We have recently (2019) adopted our Environmental Policy, which alongside national policies, means that we have a responsibility to meet targets to reach carbon neutrality. The Norfolk target is to move towards carbon neutrality across all sectors by 2030. Emissions from transport on the networks, including rail, road and waterways, will need to contribute towards achieving this target and the council will have to work in partnership with other agencies as appropriate, or where we do not manage the network. Policy 11 above reflects the adopted environmental policy. There is a separate target for net carbon zero on our own estate (ie the operations that the council directly undertakes) in our Environmental Policy.

Our strategy, set out in this plan, is to achieve a shift towards active travel and cleaner vehicles. LTP4 Implementation Plan sets out how we will deliver the strategy and our ambitious carbon target. This takes account of any guidance issued including government's Toolkit of Guidance to support local authorities. We are already refreshing our walking and cycling strategy and have adopted an electric vehicle strategy, amongst other things. As part of the work on development of this plan we commissioned work to understand the impact that measures will have on carbon reduction. This shows that car and van electrification is likely to have the most significant impact on reducing carbon emissions in the county, but that accelerating the uptake is needed if we are to meet our ambitious targets. The LTP implementation plan sets out how this shift will be made, together with the range of other actions we propose.

The implementation plan has taken account of the statement in government's decarbonising transport plan that going forward, LTPs will also need to set out how local areas will deliver ambitious quantifiable carbon reductions in transport, taking into account the differing transport requirements of different areas. The Transport Decarbonisation: Local Authority Toolkit, April 2022, has been designed to provide advice to local authorities on planning and actions they can take to reduce transport carbon emissions. New guidance in the Zero emission fleets: local authority toolkit, Published 13 April 2022, sets out actions for local authorities to convert to zero emissions fleets. This will support the council's aim to become net zero on its own estate by 2030 and is therefore not considered likely to adversely affect its delivery.

We need to ensure that transport infrastructure both mitigates climate change and adapts to it. Norfolk is a vulnerable county as it consists of a large number of coastal communities, communities close to rivers and The Broads. It is also a relatively flat and low-lying county. Therefore, it is important that transport infrastructure is adapted to climate change to mitigate the effects it will have to ensure the transport network is not compromised with a disruptive effect on the county's economy or in the ability of people to be able to continue to get to jobs and other services.

With the increasing occurrences of extreme weather events, vulnerability assessments of transport networks will become increasingly important. These assessments enhance our understanding of risk areas and certain measures which should be taken. This would provide a basis for strategic choices in order to climate proof our transport infrastructure and maintain stable transport networks and services.

Air quality and pollution

Policy 12
Our priority for tackling air quality will be to take action to improve air quality, including investigating vehicular restrictions or charging, where air quality falls below the threshold for Air Quality Management Areas. We will also embrace new ways of monitoring air quality to inform interventions, including in other areas, where this is deemed necessary.

The reduction of Nitrogen Dioxide (NO2) and particulate matter in areas of high levels, and / or where there are vulnerable residents, is important in tackling the problem of pollution currently felt in Norfolk. Work also needs to be done to identify future problem areas and tackle emissions before they get too high. We can tackle this by increasing the use of public transport and active travel whilst cleaning up vehicles and facilitating a shift to electric buses and private hire vehicles. Our priority will be to tackle problems in Air Quality Management Areas (AQMAs) that have been declared due to transport emissions. These are areas where monitoring has shown that NOX levels fall below thresholds.

We will also consider people's concerns in other areas, particularly outside schools. An innovative approach to monitoring air quality – through the use of apps or other equipment that has been found to produce reliable results – and the use of data should help to identify the issues and inform appropriate interventions.

In areas where action is taken it must be ensured that those less able to use active and / or public transport options are still able to access services and not left isolated.

Travel choice and behaviour

Whilst the county council can make changes to the transport system this will only be effective if people also choose to adapt the way they use the network. For shorter journeys in urban areas people perhaps have greater choice than for those in rural areas, where journeys tend to be longer and infrastructure – and public transport – provision lower. There will be different solutions for individuals, dependent on their circumstances, and the journeys people wish to make. Behaviour change in the way we travel is integral in improving quality of life in Norfolk by influencing the choices we make, such as reducing single occupancy car journeys. This issue is covered more extensively in Policy 4, in Chapter 4: Embracing the Future.

Shifting travel from private cars to public transport and active travel is becoming increasingly important, particularly post Covid-19. Reducing the dominance of the car – reclaiming the streets for pedestrians and cyclists as well as making provision for improved quality of life such as green space and play areas.

Ways we can improve health and wellbeing through transport:

- Provide viable sustainable transport options, which helps reduce pollution and improve people's mental and physical health
- Develop and implement a systems approach to travel behaviour change, leading to a modal shift to public and active transport
- Education to make people feel safer using the transport network on foot and cycling
- Improve infrastructure such as increasing the number of electric car charging points
- Electrification of the bus services and private hire vehicles will be vital to reduce emissions in the long term. The fuel-price stability of electricity over diesel can also benefit the transport providers
- Restrict some types of vehicles in Air Quality Management Areas or the creation of Low Emission Zones
- Continue to monitor pollution levels across the county and act early to respond to high levels, but also consider interventions to stop levels getting too high or outside of schools or other locations of concern
- Make Norfolk an attractive place to live and work, ensuring access to sustainable and active transport option and recreational space
- Ensure we have a useable transport network, linking people to the services they need to reduce social isolation, which can contribute to poor mental health
- Make improvements for walking and cycling and cycle parking in city/town centres and residential areas to make them a more desirable option
- Work with public transport providers to better move from different modes of transport. This includes better links between bus and train and improved cycle parking at stations.

Quality of place

Policy 13
We will seek to improve quality of place, conserving and enhancing our built and historic environments, when we take action to improve the transport network.

The transport network also has an impact on the environment through which it passes. This is especially true for built up areas where it is often the defining feature of the place. Norfolk is characterised by many ancient settlements that have retained their historic character, and it is important that we continue to respect this, both in changes we make to the existing network and in how new infrastructure, including new areas of housing, is provided. All proposals will be subject to an assessment of impacts, including on designated sites, townscape, landscape and heritage assets and designed accordingly. These assessments will be proportionate to potential impact and scale of the proposals. The importance of place making, however, in highway design should not be underestimated.

The adoption of a 'Healthy Streets' approach to planning and delivering transport, public realm and urban planning puts people, and their health, at the heart of decision making and results in healthier, more inclusive places where people choose to walk, cycle and use public transport. We will apply a Healthy Streets approach in Norfolk.

The Environment Act, which received Royal Assent in November 2021, introduces a requirement for biodiversity net gain as a condition of planning permission in England. We shall seek to meet the objective by assessment of any potential loss of biodiversity as a result of implementation of the transport strategy.

Innovation

Intelligent transport systems improve and innovate services across different modes of transport. Better traffic management enables users to be better informed and make safer, more coordinated, and 'smarter' choices across the transport network. The provision of up-to-date information to bus, train, and even congestion can help create a better-informed traveller. The collection of air quality data can help us tackle the issues of air quality and better understand how it has impacted by different policies in the Local Transport Plan. Working with partners we can introduce new technology, such as sensors, to better understand journeys and develop targeted improvements. Gaining as much data as possible on air pollution means we will be able to use this data to establish a baseline to inform future decision making and better target interventions.

Chapter 8:
Increasing Accessibility

Introduction and chapter summary

This chapter deals with how are able to access essential services like jobs. It includes:

- Access to and within Norwich, King's Lynn, Great Yarmouth and our market towns: Access to and within larger urban areas have their own issues such as poor air quality and congestion. Encouraging interventions such as cycling and walking can contribute to easing both
- Access in rural areas. Public transport is often limited compared to urban areas. We want to encourage alternatives to the private car while acknowledging that there are barriers, as well as continuing to work with public transport providers to improve services in rural areas and overcome barriers to improving these services
- Access for all: We recognise that people who live in, work in and visit Norfolk access the network in different ways, depending on their individual circumstances and characteristics. We want to provide a network where transport and movement can be accessed, understood and used to the greatest extent possible by all people
- Bus Back Better: Government published its bus strategy in March 2021. We are committed to establishing Enhanced Partnerships with bus operators and have developed a local Bus Service Improvement Plan detailing how we propose to improve services
- Alternatives to travel: Encouraging better broadband and other measures without causing increased social isolation. Covid-19 has led to behaviour change and more activities such as shopping being done from home. Further research and monitoring is currently being done to better understand how travel patterns have been affected; and how much they might change in the future.

The chapter sets out that:

- Poor access can lead to social exclusion and restrict some people from being able to live independently
- Access by sustainable and active modes of transport is key to the design of new developments and needs to be part of existing networks
- Norfolk's dispersed population makes it difficult to provide some forms of transport, such as regular buses, in some areas, which is covered further in the connectivity chapter
- Cycling and walking is increasingly important, as people recognise the financial benefits and benefit to physical and mental health by getting active and cutting down car journeys

- Transport networks need to provide for economic growth and reduce emissions while still providing better accessibility to communities and services. This can be achieved by planning sustainable links within new developments and working with bus companies
- Safety, availability and reliability of some forms of transport, particularly in rural areas, can make people feel private cars are their only option
- Research and data collection are vital to gain as much information as possible on how and why people are making journeys so we can make better infrastructure choices
- The utilisation of new and innovative technology can better inform travel journeys and provide people with up to date information, which is also covered in the sustainability chapter. However, access for all groups is important and some people struggle to access information on the network and journey planning digitally.

Increasing accessibility is important so that everyone has access to the services and opportunities they require; poor accessibility can lead to social exclusion. Inaccessibility can be caused through a lack of public transport availability, lack of awareness of travel options, the cost of travel, long distances or simply having infrastructure that is not accessible. Accessibility can also include bringing services to communities by making sure developments link communities and provide options such as broadband.

Policies

This section provides a summary of the policies in this chapter.

Policy 14
We will work in partnership with agencies in Norfolk to tackle accessibility problems, targeting those communities most in need. We will seek to ensure that accessibility is planned as part of service delivery.

What this means in practice:

- We are committed to establishing Enhanced Partnerships with bus operators and have developed a local Bus Service Improvement Plan. Amongst other things we will:

  - Facilitate the commercial operation of the bus network through physical design including busways, bus priority and advising local planning authorities on appropriate estate design

  - Deliver transport to fulfil our statutory requirements to take children to school

  - Work with operators on ticketing schemes, education transport passes and information including allowing passenger transfer between operators and different sustainable modes

- In return we will expect operators to commit to the Enhanced Partnership to work with us and other service providers to improve accessibility and, amongst other things, provide clean, efficient and frequent services that run to time and explore new ways of delivering transport services that connect people with where they need to go
- By saying that "Accessibility should be planned as part of service delivery," we mean that when providers are considering where to site facilities like doctors surgeries, they should consider how people will be able to access them. Therefore, when planning services and facilities, providers will take account of the ability for people to get there as well as other factors such as availability of premises and the cost

- Working in partnership means we get expertise and specialism of other organisations and networks. This allows agencies to consider accessibility problems in the round, taking account of any difficulties and – if necessary – making changes to the way that the services are provided so that people can access them more easily. Building relationships and targeting communities most in need helps us to find out what residents' needs are, and not what we think they are
- By working in partnership with transport providers we do not simply rely on the market to provide the services that people need to get where they want to.

Policy 15
We will identify routes important for sustainable and active transport and give priority – especially in urban areas – to sustainable and active modes of transport.

What this means in practice:

- On certain routes in urban areas we will put in dedicated, segregated lanes for public transport and / or cycling. This is likely to make travel for general vehicles slower, but it might be possible to put in complementary measures elsewhere
- This means we will prioritise space for certain types of user in urban areas rather than trying to make provision for all types of user on each corridor, because it is not practicable to do this
- Where we have tried to make provision for access in urban areas to all types of user on each corridor, rather than favouring sustainable and active modes on some roads, it has simply resulted in a compromise whereby no user is satisfied with the provision. For example, general traffic movement is compromised by bus or cycle lanes, but these bus or cycle lanes are, in turn, compromised by the need to cater for general traffic. The layout and constrained nature of roads in our urban areas means it is very difficult to make improvements for all types of user
- Recent government guidance discourages shared use (eg paths shared by pedestrians and cyclists) for active forms of transport. People feel less safe where they share the roads with other users, and will be more encouraged to uptake healthier modes of transport if they are given priority and not sharing space
- Government policy, environmental targets and public feeling all support the encouragement and safe infrastructure for sustainable and active travel. The support for active transport intervention has been particularly heightened with Covid-19.

Policy 16
We commit to providing a network where transport and movement can be accessed, understood and used to the greatest extent possible by all people. We recognise that people who live, work in and visit Norfolk access the network in different ways, depending on their individual circumstances and characteristics, and that what enables good access for one person may act as a barrier to another. We will therefore robustly assess all schemes and pay due regard to the Public Sector Equality Duty (along with our other duties and responsibilities), to identify potential barriers and determine how best to overcome any barriers and facilitate access to the greatest extent possible for all. Where appropriate, on a case-by-case basis, we will make reasonable adjustments.

What this means in practice:

- When making or considering changes to the network, we will strive to make sure that it is suitable for all users including people with disabilities or restricted mobility
- Considering all users ensures people don't feel social isolation
- Where possible, we will work with partners to provide more information, support and suitable infrastructure to users to help all people feel confident about the full range of transport options available
- We are following this policy in preference to separating different types of users and providing dedicated provision suitable for different needs. There is often not enough space on the network to segregate everyone and provide separate space for all. We would struggle to find the budget to cover the cost of dedicated facilities for all different types of users
- The council encourages a safe and reliable transport network for all users. More information on the safe systems approach is covered in the Safety chapter.

Achievements

✔ Norfolk County Council has a good working relationship with all of Norfolk's public transport operators, at both a strategic and operational level. This has led to a good level of service provision on a commercial basis, with the council funding plugging the gaps where necessary.

- The county council works in partnership with providers to tackle accessibility issues for everyone and aims to improve movement for all modes of transport.
- All local bus operations are accessible to people with disabilities. All trains have been replaced by brand new ones for the majority of Norfolk's services.
- Norfolk has a good network of community transport operators and community car schemes. Many of these receive no funding from Norfolk County Council and are run entirely by volunteers or through donations. This means that many gaps in rural transport provision by conventional bus services are covered by alternative demand responsive services.
- Norfolk's transport provision is integrated as much as possible, with many school children travelling on local bus services which then enables journeys to be provided throughout the day for shoppers and other travellers.
- Norfolk's key urban areas and a limited number of market towns are served by good rail services. Through the PlusBus scheme tickets can be bought that then allow passengers to make onward travel by bus for a small additional cost.
- Norfolk County Council manage approximately 3,900 km (2,400 miles) of Public Rights of Way consisting of footpaths, bridleways, restricted byways and byways open to all traffic. We also manage the Norfolk Trails, a network of 13 long-distance paths and associated circular walks covering 1,900km (1,200 miles).
- Norfolk Trails team has developed further opportunities for short walks and circuits, many with a geographical focus such as market towns or that integrate with public transport. Access testing has been undertaken on the Norfolk Trails, in order to support people accessing the countryside and improve quality of life. This has led to the production of the Access Tested Booklet, which contains key logistical details and a route map, with a description, maps, photos and details, illustrating the ground conditions, width, etc…
- Successful access initiatives have strong links with quality of life, with successful projects such as 'Pushing Ahead Norfolk' promoting the health benefits of cycling and walking as well as benefits for the environment, but also traffic reduction and being a cheaper alternative to the private car.

Evidence

Evidence shows that Norfolk has high levels of car ownership and use, reflecting that often this is the only viable option people have to get to services and facilities. Whilst the major towns and urban areas are generally well-served by public transport (bus) services from other centres of population, coverage is sparser elsewhere. Large parts of the county are not close to a rail station, though rail is relatively well-used for commuting into the major centres where it is available. Journeys tend to be lengthy – due to the geography of the county – meaning that active travel is often not an option for travel.

This means that accessibility – people's ability to get to essential jobs and services – can be poor. This restricts opportunities available for people and can lead to issues such as social isolation or employers finding it difficult to attract people with the right skills to the workplace.

Norfolk County Council uses evidence of access to services like healthcare (hospitals, GPs and other health services), employment and education by public transport. The Local Transport Plan consultation showed that lack of public transport is considered one of the largest barriers to giving up the private car. The House of Commons Transport and accessibility to Public Services Report and Department of Transport 'The Inclusive Transport Strategy: Achieving Equal Access for Disabled People' are also useful sources of evidence.

Challenges

- The geography of the county, with its dispersed population and many parishes with low population, makes it difficult to provide public transport on a commercially sustainable basis
- Congestion, high levels of non-bus traffic, cheap parking and lack of bus priority in urban areas make it difficult to make public transport an attractive alternative to the car
- Norfolk is the fifth largest county in England and has a limited rail network
- Public transport is frequently seen as a less attractive mode of transport to the car
- The bus and community transport market are very fragile; the county council subsidises several routes
- There is limited funding for transport interventions
- The natural and historic environment needs to be taken into account when considering transport improvements or route diversions
- Problems with transport provision and the location of services can reinforce social exclusion by preventing people from accessing key local services
- How people travel to work is changing and the challenge of getting people to leave their car at home is exacerbated when people don't always work standard hours that fit with public transport timetables
- Challenges of encouraging behaviour change to shift transport to sustainable methods, rather than the private car.

Strategy for delivery

Our focus will be to:

- Establish Enhanced Partnerships with bus operators and deliver on our local Bus Service Improvement Plan
- Maintain current commercial bus network and support operators
- Grow rural transport networks and increase frequency on inter-urban routes if further funding becomes available
- Increase bus priority measures on the most important routes
- Tackle congestion in urban areas so that buses can flow freely, and walking and cycling is a more attractive option
- Ensure access is a key consideration when new services are developed (eg health services, employment areas, and growth)
- Ensure access by sustainable modes (public transport, walking and cycling) is considered as part of any new housing developments
- Robustly assess all schemes to identify, and determine how best to overcome, any barriers and facilitate access to the greatest extent possible for all. Where appropriate, on a case-by-case basis, we will make reasonable adjustments.

Tackling poor accessibility

Policy 14
We will work in partnership with agencies in Norfolk to tackle accessibility problems, targeting those communities most in need. We will seek to ensure that accessibility is planned as part of service delivery.

Poor accessibility can affect a range of outcomes including the economy, and people's health, skills and aspirations. It is not only about whether areas are served by public transport, but that this can be used: All providers have a role in ensuring that people are able to use their services.

We will work in partnership to identify and deliver the most appropriate solution to address need. This could include a range of transport provision including scheduled bus services, taxis, car-sharing, demand responsive transport, informal community-based schemes and car clubs.

The majority of bus routes in Norfolk operate on a commercial basis. We have limited ability to influence the routes, timetables or fares. However, in some cases the council subsidises services which otherwise would not operate. We fund these because they are important to the communities and passengers who use them and help people to get, for example, to and from work, or healthcare and other services. We will continue to work in partnership with transport providers including to:

- Establish Enhanced Partnerships with bus operators
- Deliver the objectives and outcomes of the Bus Service Improvement Plan
- Facilitate the commercial operation of the bus network through physical design including bus priority and advising local planning authorities on appropriate estate design
- Deliver transport to fulfil our statutory requirements to take children to school
- Work with operators on ticketing schemes, education transport passes and information including allowing passenger transfer between operators and different sustainable modes.

We want accessibility to be planned as part of service delivery. This means that when providers are considering where to site facilities like doctors surgeries, they should consider how people will be able to access them. Therefore, when planning services and facilities, providers will take account of the ability for people to get there as well as other factors such as availability of premises and the cost.

Managing the network to improve public transport accessibility

The county council has a specific responsibility in maintaining and managing the transport network, and in delivery of this we will, amongst other things, facilitate the commercial operation of bus networks through physical design including busways and bus priority and advising local planning authorities on appropriate estate design.

We will work with operators on ticketing schemes, education transport passes and information including allowing passenger transfer between operators and different sustainable modes. In return we will expect operators to work in partnership with us and other service providers to improve accessibility and, amongst other things, provide clean, efficient and frequent services that run to time and explore new ways of delivering transport services that connect people with where they need to go.

Policy 15
We will identify routes important for sustainable and active transport and give priority – especially in urban areas – to sustainable and active modes of transport.

On certain corridors in urban areas we will put in dedicated, segregated lanes for public transport and / or cycling, recognising that this is likely to make travel for general vehicles slower, although it might be possible to put in complementary measures elsewhere. This would enable us to meet the challenges set out by government in their guidance on cycling, where dedicated, segregated cycle facilities are the only types of provision that they have indicated will receive funding. It will also allow dedicated, segregated bus lanes to be implemented in full on important public transport corridors into the urban centres. This will support government policy and our environmental targets as well as respond to the strong public feedback we got for public transport and safe infrastructure for sustainable and active travel. The support for active transport intervention has been particularly heightened with Covid-19.

In managing the network, and in considering dedicated facilities on some corridors for certain types of user, we will consider access by powered two wheelers (including motorbikes, mopeds, etc…). Powered two wheelers can provide cheap, efficient transport options and can be used by younger people before they are old enough to drive. We will also give consideration to priority for high-occupancy vehicles where this will be effective and can be supported through necessary enforcement.

It is important to ensure good connections for freight, whether this is produce manufactured in the county being brought into the county, or goods delivered to individuals. Improvements to strategic connectivity will help on the main transport corridors. Within urban areas we will need to maintain access balancing this against large vehicles attempting to deliver into the heart of our historic towns and city. Initiatives such as freight consolidation onto smaller vehicles or electric powered cargo bikes might provide an answer.

The county council is refreshing its walking and cycling strategy, taking account of the recently published Gear Change and corresponding local transport note. This sets out, amongst other things, government's vision for active travel as well as the standards for infrastructure provision. We have developed Local Cycling and Walking Infrastructure Plans in our major urban centres and are now working countywide. In the future, the council will need to consider how to deal with newer forms of transport like e-scooters. Although not currently generally legal on the highways network, we are participating in trials in Norwich and Great Yarmouth allowing the use of rental scooters on the carriageway and dedicated cycle facilities.

Access to and within Norwich

The county council has completed its review of its transport strategy for Norwich. This sets out the detail of how we intend to improve access to and within the city and its strategic growth areas; the following provides a summary.

The county council wants to encourage the use of more sustainable forms of transport, such as public transport, cycling and walking. Completion of the A1270 Broadland Northway has enabled traffic to avoid the city, allowing many improvements to be brought forward without compromising the functionality of the road network. Completion of the Norwich Western Link will connect the Broadland Northway to the A47 in the west and will be complemented by sustainable transport measures. The Norwich Western Link would provide a higher standard route between the western end of Broadland Northway and the A47 and significantly improve travel between these two major roads. Traffic congestion, rat-running and delays to journeys are all significant issues on minor roads to the west of Norwich.

Parts of Norwich have been declared as an air quality management area (AQMA). The major pollutant source in the city is road traffic. Source apportionment exercises identify oxides of nitrogen from road traffic to be the most significant source of nitrogen dioxide (NO2) and, more specifically, buses and taxis to be the main contributor. Interventions need to be made to stabilise traffic levels and as a result improve air quality around Norwich. Chapter 7: Enhancing Norfolk's Quality of Life details how we intend to tackle this.

The county council will continue with the programme of increasing the number of walking and cycling routes. We will also create a new public transport route to connect Norwich Airport to the airport industrial estate, enabling longer-distance connections to the growth areas. Other priorities include the expansion of Thickthorn Park and Ride, quicker buses and new transport links to Norwich Airport, the University of East Anglia and Norwich Research Park, principally with the city centre. One priority is to increase the amount of bus priority in the city area and on the core radial routes into the city. By enhancing the Park & Ride offer we can make it a more attractive solution than the car.

We will also continue to work on accessibility issues to key regeneration sites including the East Norwich Strategic Regeneration Area where redevelopment will need supporting vehicular, pedestrian, cycle and public transport access infrastructure. Anglia Square will also need improvements in connectivity and permeability across the site with new and enhanced pedestrian and cycle links and improved shared transport services (buses, car club and bike share).

It is important to make it easy for passengers and all visitors to Norwich to know how to get to the city and how to get around while they are there. The results of the Local Transport Plan consultation showed that better use of technology to update travellers on traffic conditions, public transport and accidents is a priority for residents.

Access to and within towns and urban areas

Transport networks need to provide for economic growth, reduce social inclusion, contribute to environmental improvements, reduce emissions, and provide better accessibility to and within towns and urban areas. Our focus will be on providing sustainable links to connect in and around towns and urban areas including linking to longer-distance rural networks and to, and within, new developments. We will continue to work with bus companies to provide connections and improve the public transport offer. We recognise the need to better integrate public transport with school transport and provide travel training so more young people can access this.

New growth in urban areas has the potential to worsen current congestion areas during weekday peak hours; a concern also for leisure and tourism in coastal and market towns. The county council has completed market town transport network improvement strategies in the ten towns where need was greatest. These provide more detail on (amongst other things) how, and where, sustainable transport links will be provided and where new transport infrastructure should be considered to accommodate growth.

The council has also adopted transport strategies for King's Lynn and Great Yarmouth where more detail can be found about plans in the two towns. Highlights include, at Great Yarmouth, continuing to improve local connections particularly on the cycle network, working with National Highways on A47 improvements and construction of the Third River Crossing. In King's Lynn there is again a focus on sustainable transport links together with working with the Borough Council on parking, congestion and air quality issues. To the south of the town, partners are working on development proposals at West Winch, including the West Winch Housing Access Road. This is required for 4,000 planned houses and will be complemented by sustainable transport links including links to the town.

Access in rural areas

The Local Transport Plan consultation showed that residents and businesses feel that access in rural areas is the poorest in the county. There is a need, and demand, to enhance walking and cycling connections between parishes, to nearby services and to market towns. Routes for cycling and walking are often seen as too unsafe and public transport seen as too infrequent to be useful, particularly for commuting. The county council is currently refreshing its cycling and walking strategy, which will include development of suitable networks in both rural and urban areas. A Local Cycling and Walking Infrastructure Plan is being developed countywide. Local footpaths and other assets such as longer-distance trails can provide important local connections for

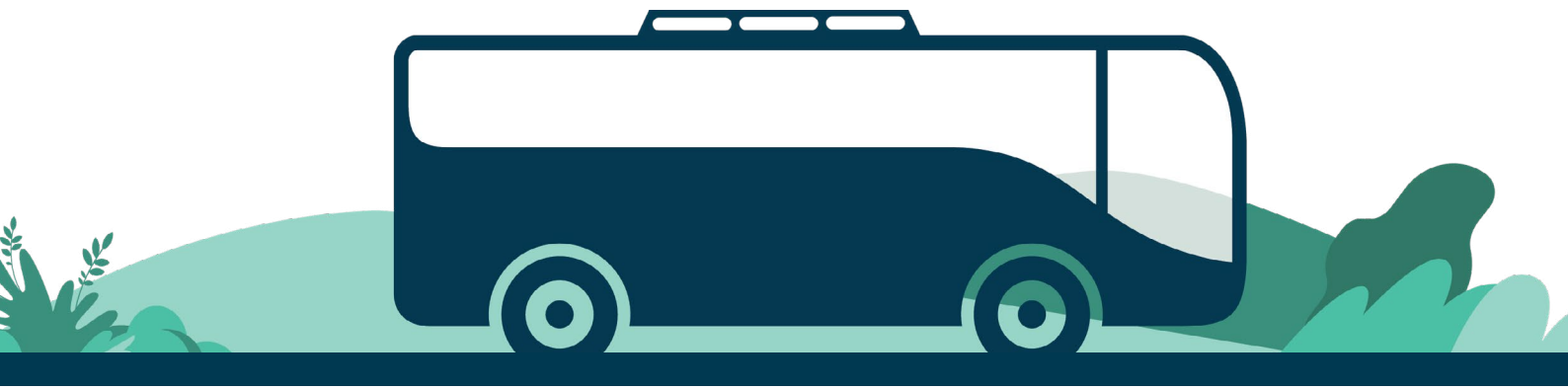
leisure and other uses such as connecting people to services.
The council currently works with parishes to formulate solutions for transport in their area, such as the use of car schemes, dial a ride, and feeder services. It is also vitally important that we plan for links from new housing developments at an early stage to make sure infrastructure is in place, alongside transport services and incentives not to drive.

We will continue to look at how we get a better understanding of need in rural areas, and how this might be accommodated given the challenges relating to provision of services. Research and data collection will ensure community resilience if we can better understand the real places that people in rural areas want to access to help overcome social exclusion and isolation.

Access for all

It is important to ensure no sector of society is disadvantaged by the local transport offer. Therefore, we need to make sure that transport can cater for those with physical disabilities; that young people have the access they need for education and work opportunities; that the way the roads and streets are laid out does not create difficulties.

Barriers to the network can include mobility issues, disability, age, hidden disabilities and cost and frequency of transport options.



Policy 16
We commit to providing a network where transport and movement can be accessed, understood and used to the greatest extent possible by all people. We recognise that people who live, work in and visit Norfolk access the network in different ways, depending on their individual circumstances and characteristics, and that what enables good access for one person may act as a barrier to another. We will therefore robustly assess all schemes and pay due regard to the Public Sector Equality Duty (along with our other duties and responsibilities), to identify potential barriers and determine how best to overcome any barriers and facilitate access to the greatest extent possible for all. Where appropriate, on a case-by-case basis, we will make reasonable adjustments.

The ability to physically access places people need to get to is fundamental. However, street environments can be difficult to navigate for some. An understanding of the barriers that people face is needed so that these barriers can be taken into account at all stages of policy making and scheme implementation. When making or considering changes to the network, including to public transport services, we will strive to make sure that it is suitable for all users. To help people access the transport network, information needs to be easily accessible to all people and in a format people can use. Where possible, we will work with partners to provide more information, support and suitable infrastructure to users to help all people feel confident about the full range of transport options available.

The county council will continue to work to support all groups being able to use the transport network. This includes:

- Removing and consolidating signs that restrict footway space and installing dropped kerbs and tactile paving
- Supporting the expansion of the use of talking bus stops outside Norwich city centre and Park & Ride sites, which are fitted with RNIB React software. With these you can use a RNIB React key fob to obtain information about the name of the bus stop and the next bus departure
- A large tactile map that provides bus travellers with audible information is also now available at Norwich bus station. The map offers live travel information on bus station facilities, nearby bus stop locations and departure times. Designed to be fully inclusive, the map is fitted with an RNIB React module and responds with a location message and sound when a user with a React key fob approaches. If the user presses a button on the fob, the map will announce any message that is being displayed
- Braille bus hailers are hand-held flipbooks, which are designed to clearly signal to the bus driver which bus you are waiting for. Simply use the braille flipbook to show the number bus you need, or the word bus, and hold it out at the bus stop

- Our Transforming Cities programme will address (lack of) step-free access to Wymondham rail station. We will continue to explore how we can improve step-free access at others, with priorities being Thetford and Diss
- We will explore how we can improve the provision of information for public transport. Elderly people report that they are reluctant to use the bus network as they are left waiting at rural bus stops with no information on buses that have been delayed or cancelled
- A report by Age UK states that 1.45 million of those 65 and over in England find it difficult to travel to hospital, whilst 630,000 of those 65 and over find it difficult or very difficult to travel to their GP. It is the people with the worst health and the lowest incomes who struggle the most to travel to health services. The most frequent reasons for not using public transport among those 65 and over are that it's not convenient and does not go where you want
- We will encourage active travel. Walking and cycling for older people could help health and wellbeing, and reduce feelings of social isolation
- Streetscape, spacing and infrastructure design for (including for electric infrastructure eg charging, parking, signposting) will need to take account of accessibility for all including those with reduced mobility or disability
- Consideration will be given to those who may not have the same understanding of, or access to, emerging technology.

Alternatives to travel

Increased broadband coverage, particularly in rural areas and ensure new developments include this to enable more people to work and shop at home.

According to the Norfolk Infrastructure Delivery Plan the Better Broadband for Norfolk (BBfN) Programme is expected to increase access to superfast broadband to 95% of Norfolk properties by the end of March 2020. At the time the plan was written, BBfN has seen access to superfast broadband speeds increase from 42% in 2013, to over 95% of Norfolk properties in spring 2020. These figures are taken from the independent organisation "Think Broadband" data.

Behaviour change due to Covid-19 has meant that more people are working from home and accessing services virtually, such as online shopping. Therefore, it is important to monitor the way people are travelling going forward to assess what will be the 'new normal', and how we can support it.

Innovation

We will work towards cleaner bus fleets. This will include investigating how we overcome the challenges of electric vehicle fleets that can meet the – often longer distance journey – needs of the county. We will also consider safe and better journey cards. These cards have been designed for bus users who might need some extra assistance when communicating with drivers. They include messages such as “please give me time to find a seat” and “please speak slowly”.

It is important to embrace innovative technologies to increase data collection to better understand how people use the network and the services they want to access. The publication of data on transport, journey times and performance can also help people plan journeys and select the most suitable mode of transport. Data Collection using Sensors can help us plan more reliable journey times and improve decision making. Making data available to people through prototype technologies can help users with accessibility needs better access the right forms of transport for their needs.

Chapter 9:
Improving Transport Safety

This chapter deals with Transport Safety.

The chapter sets out that the council will seek to reduce the number of killed and serious injured on the road network by adopting a safe systems approach and working with partners to achieve this vision. The safe systems approach acknowledges that road users will make mistakes and interventions should be designed to tackle that and increase survivability if a collision occurs. It has five pillars of:

- Safe speeds
- Safe roads
- Safe road users
- Safe vehicles
- Post-crash responses.

The priorities will be to reduce the rate of casualties who are killed or seriously injured. This will be achieved in conjunction with other partners and organisations through the road safety partnership. The road safety team in Public Health is prioritising development of communities work and reframing the schools offer.

Safety is important on the transport network, both to reduce casualties and help residents feel safe on the network when using any mode of transport. We also need to consider how we can encourage people to use the roads in a safer manner by encouraging a change in behaviour.

Policies

This section provides a summary of the policies in this chapter.

Policy 17
Using the safe systems approach, the county council and road safety partners will work together to contribute to a reduction in the number of people killed and seriously injured on the road network.

What this means in practice:

- The safe systems approach recognises that road users will make mistakes, and that there are many variables which can cause a collision. A range of factors influence survivability if a collision occurs, including how the road network is designed, the safety of the vehicle, the condition of the road, amongst other factors, many of which are outside the control of a road user.
- A safe system which does not rely on the skills of the road user to avoid a crash but considers the whole experience, can be demonstrated in the following ways:

  - Transport systems and roads are designed to maximise road user survivability

  - The safe separation or integration of different road users are integral to the design process

  - Safety schemes and maintenance of networks are prioritised to enhance the road user experience

  - Speed management policy and interventions include environmental solutions and don't rely on road user compliance alone

  - Road users are encouraged to choose alternative modes of transport, and the safest vehicles possible

  - Compliance is encouraged through initiatives which influence road user behaviour, and enforcement action is taken where required

  - There are fast and efficient emergency responses at the roadside.

- If we followed the alternative policies we have considered, it would mean that we rely on road users to take full responsibility for collisions and focus resource on improving their skill sets and behaviours as sufficient to reduce mistakes and crashes

- The new approach allows partners to take into consideration the variables involved in a collision
- Promoting alternative, safe forms of transport through active travel initiatives will have health and environmental benefits
- Using intelligence and evidence to inform action will contribute towards effective allocation of resources to maximise impact
- Nationally the Department for Transport, and the police chief's council have adopted the safe systems approach following international guidance from the WHO to tackle collisions on the road. Locally Norfolk County Council adopted the safe systems approach in November 2018, followed by the Road Safety Strategic Partnership in 2019
- In 2009 there was a commitment to reduce the number of killed and seriously injured on the roads by a third by 2020. This has not been achieved, therefore a step change in policy and practice has been agreed by partners.

Achievements

- ✔ Design and continual implementation of cycling schemes within the greater Norwich area has required significant cross working between differing disciplines across different organisations. The long-term goal of providing accessible cycling facilities should contribute to many strategic aims regarding congestion and air quality in the built environment as well as making cycling a generally safer and more attractive mode of travel.

- ✔ Campaigning and engagement with National Highways regarding improvements to single carriageway sections of A47 will lead to safer journeys on one of Norfolk's longest, busiest roads. A route which experiences high numbers of killed or seriously injured casualties (KSIs) due to its busy nature and intermittently poor standard.

- ✔ Refreshing the Road Safety Partnership and agreeing the safe systems approach as a county council. The wider partnership has also adopted the approach, including Norfolk Constabulary, National Highways and the Office of the Police and Crime Commissioner.

Evidence

The safe systems approach accepts that road users will make mistakes, and that the system itself should reduce the likelihood of serious harm occurring when these mistakes do happen.

Norfolk County Council is keen to explore the ViDA approach to roadway analysis which will enhance our understanding of key routes and will enable us to explore a more proactive rather than a reactive approach to road safety and road improvements by reducing risk on roads based on the safe systems approach. Use of a standardised risk analysis tool enables meaningful comparisons with similarly developed European neighbours.

ViDA – Road safety assessment tool which uses data to suggest interventions to roads

Challenges

Seeking to reduce the number of people killed or seriously injured on our roads after a decade of stagnant performance in accident reduction. This is the single largest challenge which we face and is the primary reason for work in road casualty reduction.

Addressing risk reduction is made harder by challenging financial circumstances. Opportunities to engage new technologies may help but these are likely to require significant investment.

There is currently a lack of evidence on effective behaviour change interventions aimed at road users of working age, which are a critical target group.

Dealing with Norfolk's continuing aging population. Whilst older people are not necessarily more likely to be involved in road traffic collisions and tend to selectively adapt their driving habits to account for any late life degeneration, they are more at risk of injury in the event of any collisions.

Priorities for road safety

- ✔ Reducing the rate of casualties who are killed or seriously injured is the key priority for the road safety partnership.
- ✔ The road safety partnership is developing shared data sets through Powerbi dashboards to help target interventions more accurately.
- ✔ The road safety team in Public Health is prioritising development of communities work and reframing the schools offer.

Strategy for delivery

Adopting the safe systems approach means using the following sub-topics to formulate our responses to road safety collisions in the county:

- Safe speeds
- Safe roads
- Safe road users
- Safe vehicles
- Post-crash responses

Safe Systems Approach – Design roads to reduce the risk of crashes by segregating different road users to make routes safer

This is to ensure that the emphasis is not entirely on the road user, since the approach accepts that people will make mistakes and that this needs to be considered when designing the system.

A key focus for delivery in engineering should be on maximising survivability and including it in the design of networks and interventions.

A key focus for the road safety partnership is to use intelligence to target particular behaviours when developing interventions.

Policy 17
Using the safe systems approach, the county council and road safety partners will work together to contribute to a reduction in the number of people killed and seriously injured on the road network.

Safe speeds

Norfolk County Council is responsible for setting speed limits on local roads and does this through the Norfolk Speed Management Strategy which aims to address road safety issues as well as economic considerations and the environment.

The basis of the Norfolk Speed Management Strategy is to both set appropriate speed limits and achieve a reasonable level of driver compliance with those limits.

Between 2000 and 2010 speed management contributed to a 59% reduction of road collisions in Norfolk with a reduction in killed and seriously injured (KSI) from 862 to 353

This approach to speed reduction and traffic management is informed by the Safe Systems approach to road safety, which refers to the four components of the System as:

- Road Users
- Vehicles
- Roads and roadsides
- Speed Limits.

Potential or proposed changes to speed limits should be based on the following assessments:

1. What is the function of the highway corridor and the surrounding environment? Where ease of access or a sense of place are of greater importance, quality of life and social interaction may benefit from a lower speed limit.

2. Casualty numbers. Are the accident rate and/or severity pattern higher than expected? A lower speed limit or interventions to improve exiting speed limit compliance may be appropriate.

3. The need to increase walking and/or cycling and whether a lower speed limit would help encourage this. Whilst likely to apply in urban areas and in the vicinity of schools this may also warrant consideration in tourism areas.

The 'Self-Explaining' Road (SER)

Physical measures such as speed humps or chicanes force the road user to reduce speed. Another approach is called the 'Self Explaining' Road, to redesign the road environment in order that drivers are persuaded to choose to reduce speed. The SER concept advocates a traffic environment that elicits safe behaviour through its design.

Safe Roads

Intelligence-led route risk identification and targeted reduction methods enable progression towards a safe system. Risk mapping via VIDAS and analysis by Road Casualty Reduction Analyst.

Continuing identification of cluster sites and targeted intervention.

Ongoing programme of pedestrian crossing assessments and implementation, ensuring that sites with the greatest potential benefit are prioritised.

Safe Road Users

Norfolk County Council continues to deliver court diversion and other courses aimed at educating drivers about road safety and awareness. A memorandum of understanding with the Constabulary is in place to enable this work, and much of it is regulated by national requirements. The following courses are delivered:

- National Speed Awareness Course
- National Motorway Awareness Course
- What's Driving Us
- Safe & Considerate Driving
- Rider Intervention Development Experience
- Your Belt Your Life, online course facilitated by the Safety Camera Partnership.

Upwards of 30,000 clients per year access courses. These is a blend of behaviour change interventions with an element of on road coaching within the Safe and Considerate Driving course. Each course is delivered by nationally licensed self-employed trainers and courses can be deliver anywhere in the country. Those delivered in Norfolk are internally quality assured and monitored by the Road Safety Team at Norfolk County Council.

The road safety partnership priorities will be supported by the Road Safety Communities Team. This is a partnership commitment, and is outlined as follows:

Opportunity for Norfolk	Potential goal
Contributing to the road safety evidence base	For interventions to be monitored, evaluated and adapted as necessary to ensure effectiveness for the residents of Norfolk and to contribute to the national and international evidence base
Habitual/Automated behaviours	Influence the road user to be mindful and alert during their regular journeys
Risk taking behaviours	Target risk-taking behaviours such as speeding, distraction while driving, drink and drug driving and promote desirable behaviours. To achieve this, utilise all elements of the safe systems approach
Build capacity in the community	Work collaboratively with key stakeholders to achieve a Safe Systems approach in Norfolk
Road safety education in schools	Support schools to incorporate road safety education into everyday learning, integrating the messages within other subject lessons to achieve a continuum of learning. This could be through the development of evidence-based resources and training for teachers and schools
Sharing the road	Agree an approach including campaigns and interventions to keep two-wheeled road users safe whilst promoting sustainable active travel

Internal schemes of work consist of the following:

- Taxi assessments for district councils (Broadland, Norwich City, Breckland and South Norfolk)
- Minibus assessments for schools, colleges and academies
- Additional Driver development sessions
- Driving for work guidance and delivery
- Older driver assessments (GOLD) banner
- Motorbike rider Interventions.

Safe vehicles

Modern cars are designed to protect occupants in a crash. Increasingly vehicles are being designed and fitted with systems for collision avoidance and injury mitigation and protection. Driver assistance technologies help keep drivers to speed limits and traffic lanes, ensure occupants wear seat belts and are often able to warn drivers about the proximity of hazards or other vehicles; or take direct intervention and action.

There is a strong track record of Norfolk industries taking the lead in advanced manufacturing and technology and, particularly with the Lotus Group sited within the county, we are well-placed to work with partners to innovate in this area.

Post-crash responses

Working in partnership with other organisations and the emergency services will ensure fast and efficient emergency medical help, diagnosis and care. This forms the final pillar of the Safe Systems Approach.

Innovation

Governance:
Annual delivery plan for the road safety partnership with a range of interventions. A Road Safety Operational Group reports to the Road Safety Strategic Board. There is also a Safety Camera Partnership. All oversee the activities of partners.

The road safety partnership has agreed in addition to business as usual, to work together to target specific road user behaviours such as risk taking and habitual, automated behaviour. It should be noted that efforts to reduce casualties in young drivers and riders (motorbike users) will remain, due to the disproportionately high number of casualties in these areas.

Norfolk County Council has taken steps in the staff structure to make safety a key focus in transport strategy. Our previous 'Team Manager – Network Safety & Sustainability' role, with oversight of safety engineering, traffic signal design, traffic modelling and traffic surveys, has been replaced with a 'Highway Network & Digital Innovation' Manager. This new post will be looking at the issues discussed in this chapter and how new technology and innovation will both affect transport safety and how it can improve it.

Chapter 10:
A Well Managed and Maintained Transport Network

Introduction and chapter summary

This chapter deals with:

- Maintenance. This is how the county council looks after the transport network and includes keeping roads, pavements and cycleways in good condition
- Management of the network. This is how the county council deals with issues like information provision, and how the network is used. For example, the principles about which types of road should have bus lanes or cycle lanes on them.

This chapter sets out how we will manage and monitor the network so that we achieve the objectives set out in the other chapters.

The chapter sets out that:

- The county council receives a funding allocation each year from government for its local transport plan. We will use this predominantly for maintenance and maximise our use of other funding sources for new measures like cycleways, roads or public transport infrastructure. The county council has a good record of drawing down such funding
- We will prioritise spending money on maintenance on the most-used parts of the network: the main roads between urban areas and within the urban areas themselves. In our built-up areas we will prioritise maintenance of those parts of the network used by people walking and cycling
- Within urban areas we will focus on providing bus priority or cycling on certain corridors, even if this means it might take longer for other general traffic to use the routes. We will aim to make all journeys reliable so that people know how long a trip is likely to take. This is something that came across strongly in our consultation. The chapters on accessibility and connectivity set out how we will choose corridors we consider as important, dependent on the journey being made and how people choose to make it

- We will focus on identifying the key risks to the transport network from climate change, such as potential flooding, and focus tackling these where they are likely to be most disruptive to journeys. Our chapter on quality of life shows the strategy for reducing carbon
- We will embrace new and innovative technology so that we can better monitor and maintain our networks and provide information to users. This links strongly with the policy on technology in our future chapter, where we explain this further.

Norfolk has one of the largest transport networks in England, with the County Council being responsible for over 6,000 miles of road, managing all aspects of this network. This includes road maintenance, water drainage arising from the roads and street lighting. The County Council also has responsibility for maintaining 2,400 miles of public footpaths and other public rights of way and cycleways.

Policies

This section provides a summary of the policies in this chapter.

Policy 18
Maintaining the current highway asset will be a key priority for funding. Works should be targeted to ensure A and urban / inter-urban routes are in good condition.

What this means in practice:

- We will use the annual allocation of Local Transport Plan funding from government predominantly for maintenance and maximise other funding sources, like from bids, for new measures like cycleways, roads or public transport infrastructure
- It is not possible to maintain all of the network to the same standard as we currently maintain the most well-used roads. If we didn't prioritise, given the levels of funding available, the network would still be maintained so that it is kept safe, but the condition of the main roads would not be as good as they are currently. The proposal is to prioritise the major roads, even if this means that we cannot maintain the condition of other roads, pavements or cycleways to the same standards
- There is a substantial transport network across Norfolk with only a small proportion of this being A and urban / inter-urban routes. Much of the network comprises minor roads where there is less vehicular (and other) traffic leading to less degradation and therefore less requirement for maintenance at the same standard as A roads and significant multi-purpose routes into urban areas and market towns
- As there is insufficient funding to maintain all roads to the current standards of the most well-used roads, our value for money assessment shows the major roads, which carry much greater volumes would not be kept to their current standard if this alternative was chosen. Solutions should always be cost-effective in context and provide for a safe environment
- All roads, pavements and cycleways (and other parts of the transport network) will be kept safe with repairs when required.

Policy 19
We will identify corridors important for sustainable and active transport and focus maintenance on provision for these users where its impact would be most beneficial in market towns and urban areas.

What this means in practice:

- We will prioritise maintenance of those parts of the network used by people walking and cycling in our built-up areas. This will mean that the condition of cycle lanes and pavements on the most well-used routes is at the highest standard possible
- If more people choose to walk or cycle for short journeys it would help to achieve some of the county council's objectives including contributing towards the carbon target in our environmental policies as well as health outcomes including through air quality improvements. It will also help meet government policy and other environmental challenges
- Ensuring that the most well-used walking and cycling routes are well-managed and maintained will result in more people travelling sustainably
- If we focussed on keeping the carriageway for general traffic at the highest standard possible, rather than focussing on pavements and cycleways, it would not help meet the wider policy objectives and challenges, or support government policy.

Policy 20
In urban areas we will focus on measures to improve public transport corridors to make those journeys quicker and, in areas identified as having less congestion, we will aim to make all journeys more reliable.

What this means in practice:

- In our urban areas the management of the network will favour improving conditions for public transport through the implementation of measures such as bus priority lanes, giving priority to buses at traffic signals and restrictions of general traffic. This is likely to mean that it might take longer for general traffic to use the routes in urban areas
- Outside urban areas, the roads are generally less congested and do not require bus priority measures. Here we will aim to make all journeys reliable so that people know how long a trip is likely to take, even if this means that sometimes journeys might take longer than they might do on a 'good day' (but less time than on a 'bad day')
- In our consultation, public transport improvements came across as very strongly supported. Also, people wanted more reliable journeys, even if this meant that, on some days, journeys might take a little longer
- Focussing only on car traffic would have knock-on consequences such as slower or more unreliable journeys for other users in buses or walking and cycling. (It might mean buses getting caught in general congestion because there are no dedicated bus lanes for them; pedestrians might find it more difficult to cross roads because the focus would be on keeping car traffic moving; cyclists would need to cycle on the main carriageway as dedicated cycle lanes would not be a priority.) This would not support wider objectives including reducing congestion, improving health outcomes, reducing carbon or support government policy or environmental challenges.

Policy 21
The likely impacts of climate change on the highway network should be addressed to ensure assets are resilient. Where assets can't be made resilient to impacts of climate change, such as coastal erosion, we should have planned alternatives so we can respond faster and avoid disruption. We will use a risk-based approach to determine the priority for action.

What this means in practice:

- Climate change is resulting in, amongst other things, longer, hotter summers and increased incidences of heavy rainfall, leading potentially to the risk of flooding on parts of the network. Our policy will see us focussing on identifying the key risks from climate change and directing efforts on tackling these where they are likely to be most disruptive to journeys, especially on those parts of the network identified as critical to keep functioning
- Taking a risk-based approach to interventions will allow the council to identify the highest risks, both in terms of where the network is likely to be affected, and also the consequences of that risk. As we don't have sufficient resource to tackle all potential impacts, this approach will mean that the areas with highest risk, on the parts of the network considered to be of most consequence, can be focused on first.

Policy 22
New and innovative technology to collect data about the network, inform decisions, assess where to target funding on the network and share information with the public will be embraced and used proactively.

What this means in practice:

- We will be proactive in using new and innovative technology so that we can better monitor and maintain our networks and provide information to users
- This will mean continuing to move away from labour intensive data collection measures that largely rely on manual counts or – at some sites across the county – the use of specialist equipment to record usage. These do not, in any case, provide the level of analysis that innovative technology can provide
- Public behaviour, electric vehicle technology and priorities for traveling are changing rapidly and Norfolk County Council has a responsibility to respond to this change. We feel this can only be done by adopting new technology and being more innovative.

Achievements

- We have managed and made improvements to the road condition during a period of austerity. The National Highway Transportation (NHT) Survey shows that Norfolk performs well against its peer group and came out on top in 2019 with the 'Highway Maintenance' and 'Tackling Congestion' categories, both above the NHT peer group average
- We secured £10.3m through a successful bid for the Greater Norwich Area Surface Water Drainage scheme, which delivered upgrades to key drainage infrastructure, addressing long standing flooding issues across a wide residential area
- Additional funding has been secured from government, including £22.3m from the Department for Transport in May 2020, a higher sum than that given to any other local authority in the east of England, which will be used to repair and maintain roads, bridges, pavements and cycle paths
- The Norfolk Permit Scheme was established in 2014 and continues to work well. It ensures that disruption to road users is kept to a minimum by managing and coordinating activities on our network, including for our own road maintenance programme, utility works and community events
- Opening of A1270 Broadland Northway in 2018; a £205m road scheme around the north of Norwich to ease congestion and unlock economic growth, which is integral to the development of growth and new sustainable transport measures in Norwich
- Infrastructure changes to support sustainable growth, such as Push the Pedalways in Norwich, which was improvements to Norwich's eight-mile pink pedalway and the connections leading to it.

Evidence

Successful maintenance is assessed in terms of highway condition. Annual condition results look at roads, footways, traffic signals and bridges. The National Highway Transportation survey collects public perspectives on, and satisfaction with, highway and transport services in local authority areas. Around 3,300 Norfolk people were chosen at random to rate a range of highways and transportation services in the 2019 survey. These responses have been compared against our peer group consisting of 28 large counties. In the latest survey Norfolk County Council was ranked first in our peer group.

The county council also has a strong track record in securing additional funding and has been successful in receiving competitive funding from government's Maintenance Challenge Fund. In Tranche 1 (2015-18), funding was received for the Greater Norwich Surface Water Scheme, which was a £10.3m scheme to make improvements to Highway Drainage and resilience to flooding. A £2.5m grant has also been received for Tranche 2B (2019-20) towards resurfacing A1122 Marham & A1066 Brettenham to Riddlesworth; £2.8m scheme for delivery in 2020-21. More recently we received £22.3m for the repair and maintenance of roads, bridges, pavements and cycle paths.

Challenges

Maintenance

- There is a great deal of funding uncertainty around highway maintenance and development of the plan has been completed in the absence of longer term funding certainty
- There are limited times when roadworks can be undertaken, which leads to a conflict between closing roads and increasing congestion for a limited period.

Managing the Network

- Increased demands on the network push capacity to its limits, causing disruption to road users' journeys. There is a major challenge in being able to provide capacity for fast journeys at the same time as making sure that journeys are reliable
- Influencing decisions made on the trunk roads in Norfolk (A11 and A47) which are managed and maintained by National Highways. These are the main routes used to travel between the three largest urban areas in Norfolk, Norwich, King's Lynn and Great Yarmouth, and have a big impact on journey performance for a large proportion of highway users in Norfolk
- We need to strike a balance between maintaining accessibility for car users whilst encouraging walking and cycling and bus use

- Planning for walking and cycling intervention is becoming increasingly important but we currently have limited data on its usage. Therefore, we need to innovate and develop more tools to monitor and evidence future improvement schemes. Traditional automatic traffic counters do not detect pedestrians, nor do signalled crossings detect walking/cycling particularly well
- More and more data is becoming available through tools like apps on mobile phones. However, the county council currently has no influence over some of the information provided by these technologies and therefore has little or no control over how people use the network, especially route planning or choosing diversions. We will therefore actively consider and deploy technology to collect data and provide information to the public to encourage behaviour change.

> "we need to encourage a move away from car use and encourage people to use more sustainable transport options"
>
> **Response to the Local Transport Plan consultation**

Priorities

Highway Asset Maintenance Policy and Strategy was refreshed and approved by Norfolk County Council's Cabinet in January 2020 for 2020-23 and – in March 2021 – Cabinet agreed a Highways Capital Programme 2020/21 to 2022/23 and Transport Asset Management Plan 2020/21 to 2024/25. We will consider the need for a refresh following government budget announcements or the comprehensive spending review.

It is increasingly important to support an increase in sustainable transport to promote healthier lifestyles and a healthier environment. This shift in need was reflected in the Local Transport Plan consultation, which showed that a large number of people in Norfolk feel that focus should move away from the private car, to focus more on improving infrastructure for walking, cycling and sustainable public transport. The need for, and public support of, active travel has increased since Covid-19, so this should become an even more integral part of planning and managing the network.

Achieving value for money from our funding remains a priority.

Strategy for delivery

Maintenance

We have established delivery mechanisms to deliver maintenance of the network.

- Works

    - Norse Highways are principally involved in delivering routine and winter maintenance with some small works

    - Tarmac are concerned with improvement and maintenance, and seasonal maintenance such as gullies, weeds, and grass

    - Eastern Highway Alliance 3 is a Regional Framework contract designed to reduce the time and cost of maintenance by creating a bank of contractors to manage highway maintenance and management schemes

    - Norfolk County Council has an in-house design function, enabling us to respond quickly to need

    - The council has a contractor partnership with WSP to support the highway works programme

- Major Projects

    - Includes projects such as the Great Yarmouth Third River Crossing, Long Stratton Bypass, West Winch Housing Access Road, and the Norwich Western Link

    - Bespoke procurement routes depending upon size and complexity of project

    - Possible use of Eastern Highway Alliance 3 (a bank of contractors set up across ten councils in the east of England for delivering highway maintenance and improvement schemes).

Network Management

- Developing local indicators for journey reliability and congestion that can evidence the need for future improvement schemes
- Exploring the use of innovative technology, such as Artificial Intelligence cameras to better capture walking and cycling usage data in order to drive future efficiencies.

Various agencies have responsibility for different infrastructure. National Highways, formerly Highways England, is responsible for trunk roads, train operating companies and Network Rail for railways (although government will reform this arrangement with Great British Railways), and utility companies for the pipes and cables underneath the streets providing water, gas, telecommunications (including broadband) and electricity. We will aim to work in partnership with these bodies to provide the most effective and efficient networks.

Maintaining the network

Norfolk County Council has a Highway Asset Management Policy and Strategy of individual asset types such as roads, footways and bridges, aligned with the six-year Council Plan "Together for Norfolk," which sets out the council's priorities for 2020-21 and beyond. A performance framework is in place, with targets agreed by members to monitor at annual review.

The county council receives a funding allocation each year from government for its local transport plan. Given the levels of this allocation, we will make sure that we put enough of this into maintaining the roads, prioritising this above using the allocation to fund improvements to roads, pavements or cycleways. This makes it critically important that we successfully access additional sources of funding, usually through competitive bidding processes, for improvements like new cycleways, roads or public transport infrastructure.

Policy 18
Maintaining the current highway asset will be a key priority for funding. Works should be targeted to ensure A and urban / inter-urban routes are in good condition.

We will prioritise maintenance spend on the most used parts of the network: main roads and urban areas. The whole of the network will be maintained so that it is kept safe, but the condition of other roads, pavements or cycleways will not be maintained to the same standards as urban / inter-urban routes.

Policy 19
We will identify corridors important for sustainable and active transport and focus maintenance on provision for these users where its impact would be most beneficial in market towns and urban areas.

We will prioritise maintenance of those parts of the network used by people walking and cycling in our built-up areas. This will mean that the condition of cycle lanes and pavements is at the highest standard possible in areas where they get most use. We will also consider the implications of banning parking on pavements. This can be a particular problem in narrower streets with parked vehicles blocking pedestrian routes.

Getting the most out of our highway network

Capacity: we have approved a performance framework strategy to capture network congestion and capacity data. This will highlight areas of relatively poor performance on our Primary and Main Distributor Network. This will be used to drive future improvement schemes and support future funding bids by evidencing the need for investment. This is covered in more detail in the chapter on Connectivity.

Reliability: consultee responses tell us that this is an important issue to them, we have therefore developed this in conjunction with congestion data to deliver similar aims. We will trial technology to monitor the network to inform us about capacity to keep the network reliable. We are exploring ways we can better capture data including for public transport, cycling and walking (eg we now have access to Strava, a mobile phone app for runners and cyclists, analysis tools). This will help identify areas of greatest need for investment. This is covered in more detail at the end of this chapter, and also in the chapter on the future which explores innovation and technology.

Policy 20
In urban areas we will focus on measures to improve public transport corridors to make those journeys quicker and, in areas identified as having less congestion, we will aim to make all journeys more reliable.

In Policy 15, we set out that we will identify routes important for sustainable and active transport and give priority – especially in urban areas – to sustainable and active modes of transport. On corridors identified as ones important for public transport we will focus on providing bus priority even if this means it might take longer for general traffic to use the routes. This is because we recognise the importance of bus travel for people to access essential jobs and services.

Outside urban areas, the roads are generally less congested and do not require bus priority measures. Here we will aim to make all journeys reliable so that people know how long a trip is likely to take, even if this means that sometimes journeys might take longer than they might do on a 'good day' (but less time than on a 'bad day').

Highway network resilience

A key recommendation of the 2014 Transport Resilience Review for Local Roads is "that Local Highway Authorities identify a 'resilient network' to which they will give priority, in order to maintain economic activity and access to key services during extreme weather."

Norfolk has established a number of defined networks within the overall transport network:

1. Our route hierarchy is based upon the functional importance of the route and provides a route of access for all parishes and generators of heavy goods vehicles. This is 2,394km, 25% of our network

2. Our winter service priority network is 3,403km, 35% of our network

3. Our core 'snow plough routes.' These vary based upon severity of the event and resources available.

Local highway authorities have many resilience responsibilities such as to mitigate the risk posed by flood risk, reduce emissions, reduce carbon footprint, maintain and protect the resilience of the highway network and manage the effects of climate change. A resilient network has been identified taking into account key sites and will become the focus to keep operational in the event of a major incident. The network comprises mainly A roads.

The proposed resilient network has been informed by these defined networks. The resilient network is 741km, 7.5% of our network, and represents a core network to give priority to in extreme weather. It contains key strategic sites which include access to RAF Marham (Defence), Bernard Matthews Gt Witchingham (Food Production (livestock)) and Bacton (Energy production).

The resilient network will be used as a basis for decision-making and is included in the prioritisation criteria for relevant assets. A process will be put in place for annually reviewing the resilient network, alongside the winter service network.

Policy 21
The likely impacts of climate change on the highway network should be addressed to ensure assets are resilient. Where assets can't be made resilient to impacts of climate change, such as coastal erosion, we should have planned alternatives so we can respond faster and avoid disruption. We will use a risk-based approach to determine the priority for action.

Climate change is having an increasing impact on the network with more incidences of severe flooding, as well as other impacts such as soil 'heave' or the requirement to use different materials because of hotter temperatures. We will identify the key risks from climate change and direct efforts on tackling these where they are likely to be most disruptive to journeys, especially on those parts of the network identified as critical to keep functioning.

Climate change resilience for new projects will be assessed through appropriate project level design and assessment. We will also work across disciplines to provide infrastructure that is better adapted for climate change, such as might be achieved through the use of vegetation or permeable surfaces.

Innovation

We have adopted the use of 'warm' asphalt with carbon saving benefits, although its use in Norfolk is limited by the distance from the asphalt plants. We hope to use this method more extensively, depending upon the widened use in asphalt plants and improved distribution in the supply chain. Norfolk County Council seeks to adopt new materials if they are proven to be robust in whole-life costing terms. We are also monitoring developments in the use of Graphine, and recycled materials.

Norfolk County Council developed a method of strengthening the existing sub-grade on the Broadland Northway (formerly known as the Norwich Northern Distributor Road) in Norwich allowing a thinner traditional pavement design. This could be adopted by National Highways in the future.

We are exploring the use of connected vehicle and mobile phone data in order to better understand how our network is used as well as journey performance. We are also currently trialling artificial intelligence cameras to better capture walking and cycling data. We will also exploit key contracts with companies such as Microsoft to trial use of AI technology to improve decision making.

We have developed a prototype for network management data using vehicle movement data, which, subject to committee approval, will provide an objective assessment of our network performance. Building on the Norfolk Innovation network we will trial sensor technology to collect information about air quality and network use. This information would help us understand if changes in the network improve air quality and how use affects the climate. This could be published to the public so people can make decisions that will improve their communities. The information could also be used to inform route planning, how road works affect journey times and tourism.

Policy 22
New and innovative technology to collect data about the network, inform decisions, assess where to target funding on the network and share information with the public will be embraced and used proactively.

Chapter 11:
Approach to delivery

Norfolk County Council is committed to working in partnership with district councils and other key partners to deliver a sustainable future for Norfolk. This Local Transport Plan will focus on working together for mutual benefit: A better connected county benefits residents and businesses alike.

Partnership working

Norfolk and Suffolk Economic Strategy places strong emphasis on working in partnership.

Norfolk County Council Environmental Policy includes working with neighbours Suffolk County Council and the Broads Authority. New targets set by the policy have also meant that we need to work in even closer collaboration with colleagues across the council such as highways, planning, public health and education.

Together, for Norfolk stresses the importance of working collaboratively and in partnership:

- 'Working with a host of organisations, businesses and community groups county-wide'
- 'Wherever possible, we'll continue to collaborate with our partners'
- 'Genuine desire to work together', working in a more 'joined-up way'

Working with existing partners and suppliers to develop new technology and trial technologies already on the market to kick start innovation.

Example: A11 Cambridge-Norwich Tech Corridor
Norfolk County Council is working in partnership with the private sector, Cambridgeshire County Council and district councils in Norfolk, West Suffolk and Cambridgeshire, bringing together business, and academic and political leaders to grow the region's economy, attract funding and promote the region.

Community action and influence

A consultation on the themes for the plan was conducted Monday 13 Jan to Friday 28 Feb 2020, enabling the community to have their say on current transport in Norfolk, their priorities for the future of transport in Norfolk, and to influence the Local Transport Plan. We used feedback from the public, stakeholders and special interest groups to help us update our Local Transport Plan, making sure that it considers local peoples' current and future priorities for transport to help us shape the future transport provision in Norfolk.

As well as the online consultation we:

- Spoke to Norfolk Youth Parliament and collated their response as well as encouraging them to promote the consultation with the under 18s
- Commissioned an evidence report
- Commissioned a Strategic Environmental Assessment scoping report, which has been consulted on with the statutory environmental bodies (SEBs).
- Commissioned a Strategic Environmental Assessment
- Commissioned a study to test a number of policy levers to assess their impact on carbon emissions.

We undertook further consultation, in autumn 2020, on the Strategic Environmental Assessment (SEA). Alongside this, we published a draft version of the plan and invited comments. We have used these to help refine the plan. The SEA statement, included as an annex to the plan, sets out how the SEA has affected development of the final strategy.

Value for money and resource availability

Value for money is a key component of delivery and one of county council's core values.

Not all projects and ideas have dedicated funding. Therefore, we have created project pipelines, making sure that projects are ready to be implemented when funding becomes available.

Norfolk County Council is seeking funding from wide variety of sources including:

- Capital funding from the Local Transport Plan maintenance and integrated transport blocks
- Large local majors, a government funding stream
- Major road network government funding stream
- Developer funding - Community Infrastructure Levy and S106 contributions
- Norfolk Infrastructure Fund
- Local Sustainable Transport Fund
- Active Travel Fund
- EU funding and its successor
- Tax Incremental Financing
- Delivery partners, such as Sustrans
- New homes bonus
- DfT "Cycle ambition in national parks" funding
- Cycle City Ambition Grant
- Roads Investment Strategy (trunk roads)
- National Productivity Investment Fund
- Growth Deal and its successor
- City Deal
- Business Rates Pool
- Enterprise Zone Fund
- Enterprise Zone business rates retention fund
- Local Investment Fund
- Housing Infrastructure Fund
- Homes England
- Transforming Cities
- Heritage Lottery fund
- Levelling Up funding.

Many of these funding sources are being reviewed, and we are aware that new ones will be announced during the course of the plan's implementation. We will keep funding sources under review and continue to tap into them to keep the pace of delivery high. The county council has a strong track-record of securing funding and is confident that this can be maintained.

The plan sets out that we will seek to address air quality issues in urban centres and reduce carbon. Other areas have introduced schemes such as congestion charging or levying a charge against parking places at workplaces in urban areas. The revenue from this type of measure can be reinvested in transport. We are already reinvesting revenue generated from on-street parking charges back into transport.

Local Transport Plan Implementation Plan

The Implementation Plan sets out our proposals for implementation of the strategy.

Glossary

Active Transport	Active mobility, active travel, active transport or active transportation is transport through non-motorised means. The best-known forms of active mobility are walking and cycling, though other modes include running, skateboarding, non-motorised scooters and roller skates. We will mainly be discussing this in terms of walking and cycling.
Carbon neutral	Carbon neutrality refers to achieving net zero carbon dioxide emissions by balancing carbon dioxide emissions with removal (often through carbon offsetting) or eliminating carbon dioxide emissions altogether.
Clean Transport	Low carbon vehicles including cars and buses using cleaner propulsion (eg electric vehicles) and sustainable modes such as walking and cycling. Increasingly, there is a range of newer ways that people are getting about including e-scooters or, for delivering goods, delivery-by-drone or autonomous pods.
Emissions	Emissions is the term used to describe the gases and particles which are put into the air or emitted by various sources. We will focus on tailpipe emissions, Car fuel and CO2 emissions which are a serious threat to human and environmental health.

Highway Asset	Highways assets are all the parts that make up the highway infrastructure, including (but not restricted to): • roads • pavements • public rights of way • cycleways • bridges and structures • street lighting • signals and traffic management systems • some drainage systems • signs and road markings • fences and bollards • weather stations.
Micromobility	Small, lightweight vehicles designed for individual use, operating at speeds typically below 25 km/h (15 mph). This includes mobility scooters, electric bicycles, electric scooters, electric skateboards, shared bicycles, and electric pedal assisted (pedelec) bicycles.
NCC	Norfolk County Council
Net Carbon Zero	Net zero means that any emissions are balanced by absorbing an equivalent amount from the atmosphere. In order to meet the 1.5°C global warming target in the Paris Agreement, global carbon emissions should reach net zero around mid-century.

Safe Systems Approach	Safe System is based on the underlying principles that: • human beings make frequent mistakes that lead to road collisions; • the human body by nature has a limited ability to sustain collision forces with known tolerance to injury thresholds; and • it is a shared responsibility between stakeholders (road users, road managers, vehicle manufacturers, etc.) to take appropriate actions to ensure that road collisions do not lead to serious or fatal injuries. A key part of the Safe System approach requires that the road system be designed to take account of these errors and vulnerabilities so that road users are able to avoid serious injury or death on the road.
Sustainable Transport	Sustainable transportation is the capacity to support the mobility needs of a society in a manner that is the least damageable to the environment and can make a positive contribution to the environmental, social and economic sustainability of communities. These modes include walking and cycling but also public transport, electric bicycles, electric vehicles, e-scooters and mobility scooters. Many methods of micromobility and active transport are considered sustainable transport.

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Local Transport Plan 4

Implementation Plan

July 2022

Executive Summary

The Local Transport Plan Strategy sets out Norfolk County Council's plans, policies and programmes on transport and transport infrastructure. The strategy details our approach to delivering a low carbon, well-connected transport network in Norfolk. It does this through identifying the projects and programmes important to us, including in their design and direct delivery, as well as how we will work with a range of other partners on their projects and programmes. By working in partnership we believe we will most effectively achieve our outcomes.

Background to the Implementation Plan

The Implementation Plan details our proposals for the implementation of the policies in the adopted strategy. It does not detail every scheme (a project delivered on the ground such as a new zebra crossing) that the county council intends to carry out over the period. Rather, it sets out the main measures and actions that the county council will take, with our partners, to implement the policies. Its focus is over the next five years. However, many transport initiatives take longer than this to be developed and delivered. Where appropriate, therefore, our plan looks beyond this to reflect that work we put in train today will only come to fruition several years down the line.

This Implementation Plan, together with the strategy, forms the local transport plan for the county (referred to here as LTP4) and replaces the previous local transport plan (LTP3). There is a suite of other documents supporting the local transport plan; these are referenced in the Plan and the key ones summarised in Appendix 1.

About our Implementation Plan

Our Implementation Plan is firmly focussed on achieving the strategic ambitions of our adopted LTP4 strategy. This clearly sets us on the path towards improving people's quality of life and achieving inclusive growth and opportunity for Norfolk's residents. The Implementation Plan will put us on course to achieve the county council's adopted targets for carbon, both in our own operations and also more widely across all sectors.

The Plan shows how we will implement the policies and achieve the ambitions outlined in our LTP Strategy document, some of which are far reaching. All are designed to achieve the objectives of the adopted local transport plan strategy. We will monitor outcomes to ensure we are delivering these and have developed targets to track progress.

Putting carbon reduction centre-stage means we will deliver a range of actions from our electric vehicle strategy to incorporating whole life carbon assessments into our work on projects. We will use innovation and technology, and look to trial initiatives such as autonomous or semi-autonomous delivery pods in place of white van deliveries.

In our Transport for Norwich Strategy we have already committed to investigation of potentially far-reaching interventions to reduce traffic, reduce carbon and improve air quality. We have also prepared our Bus Service Improvement Plan, to bring improved public transport services across the county. We will deliver both of these ambitious projects as part of this Implementation Plan. Local accessibility will be improved through a focus on active travel and sustainable travel links, whilst better strategic connections for roads and rail will bring forward better economic outcomes. We propose an online information hub, acting as a journey planner that encourages sustainable travel as the preferred method of transport, to encourage behaviour change. All of this will be brought forward in partnership.

The proposals for implementation of the policies, as set out in the Implementation Plan, are summarised below:

Objective 1 of our adopted Local Transport Plan Strategy: Embracing the Future.

LTP4 Strategy puts emphasis on the need to adapt to and use new technology to achieve better outcomes.

- We will explore trials of future transport systems such as autonomous and digitally-connected vehicles
- Our work will be supported through developing more effective ways of understanding use of the network including hi-tech monitoring or low-cost, portable sensors that can reliably measure change to conditions
- We will explore opportunities to participate in projects and trials to decarbonise the transport system such as autonomous or semi-autonomous delivery pods
- We will develop and deliver a behaviour change programme and launch a targeted marketing campaign aimed at getting people back on the bus
- We will deliver our electric vehicle strategy.

Objective 2: Delivering a Sustainable Norfolk.

LTP4 Strategy puts emphasis on working in partnership with others to help shape the county's development plans and proposals.

- We will work in partnership to help shape delivery of new housing and jobs right from the start. This will ensure development is in places that are within easy reach and enable transport infrastructure to be planned and brought forward first
- We will review and roll-forward our suite of supporting documents (such as strategies for specific geographical areas) to ensure the principles of LTP4 strategy – quality of life, decarbonisation and sustainable growth – are fully addressed
- We commit to developing carbon plans and budgets and to devise methodologies to achieve carbon neutrality from new development.

Objective 3: Enhancing Connectivity.

LTP4 Strategy outlines that key connections into and across the county must be improved to provide better, faster and more reliable journeys. However, this must be done in a way that puts transport firmly onto a net zero carbon trajectory.

- We will continue to make the case for future investment into the major networks and on other parts of the transport network. We will do this by working in partnership with others including Transport East, the Sub-national Transport Body for the area
- There will be a focus on decarbonisation, and making sure networks are fit for future technological advances, built into programmes of work. We will work to secure better connections because this is needed, but will build in checks and balances so that carbon reduction is given due weight in decision-making, and – if the case for improvement is made – that future use of any improved connection has the least impact because maximum use is being made by low-carbon transport means. We will also look to future proof improvements to accommodate new technologies and new forms of transport
- We will take forward schemes included in current government funding streams: Long Stratton Bypass, Norwich Western Link, West Winch Housing Access Road, A47/ A17 Pullover Junction, King's Lynn and Great Yarmouth Third River Crossing. We will develop the projects in the Norfolk Strategic Infrastructure Delivery Plan. All projects will need to demonstrate their own case including demonstrating their carbon credentials.

Objective 4: Enhancing Norfolk's Quality of Life.

LTP4 Strategy puts a clear priority on carbon reduction. Alongside this, it gives priority to tackling air quality and to improve quality of place, conserving and enhancing our built and historic environments.

- We will focus on carbon reduction through a range of actions including delivery of the electric vehicle strategy, investment in active travel networks, roll-out of digital connectivity to reduce travel, and working with partners to influence the location and nature of development
- We will introduce appropriate and proportionate whole life carbon assessments including construction and use of the asset for our schemes. We will also develop suitable assessment criteria for schemes on our project pipeline so that we consider the impact of schemes across the range of LTP4 objectives, including carbon and quality of place. We will work with regional partners on carbon reduction projects and toolkits
- We will deliver the Transport for Norwich strategy, which includes feasibility work on a number of potentially far-reaching interventions to reduce traffic, reduce carbon and improve air quality, and refresh the transport strategies in other urban areas.

Objective 5: Increasing Accessibility.

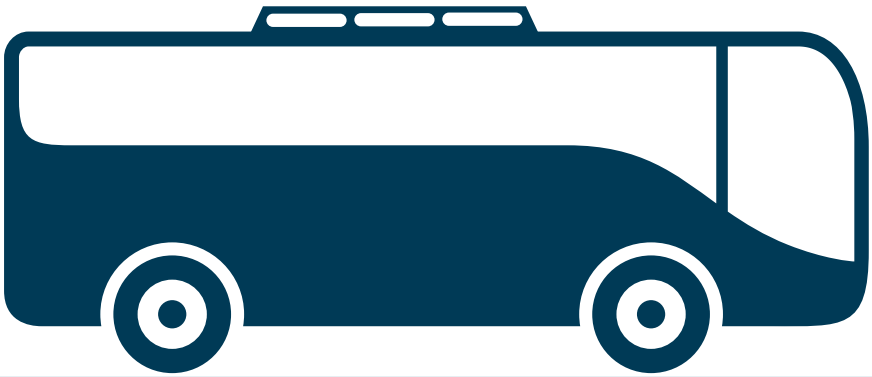
LTP4 Strategy is clear that working in partnership with bus companies, train operators, local communities, service providers and those who plan service provision is key to increasing accessibility.

- We will improve accessibility through a range of measures based on public transport and active travel. We will deliver the Bus Service Improvement Plan to achieve its key outcomes including increased patronage and accessibility in rural areas
- We will develop and deliver Walking and Cycling Infrastructure Plans across the whole of the county
- We will plan accessibility as part of service delivery, considering how people will be able to access facilities and key services during planning stages
- We will reprioritise space, especially within urban areas, and give priority to walking, cycling and public transport, leading to more sustainable travel
- We will undertake proportionate assessments of proposals to make sure the transport system is suitable for all users including people with disabilities or restricted mobility.

Objective 6: Improving Transport Safety.

LTP4 Strategy is to work in partnership to achieve casualty reductions on the transport network using the Safe Systems approach.

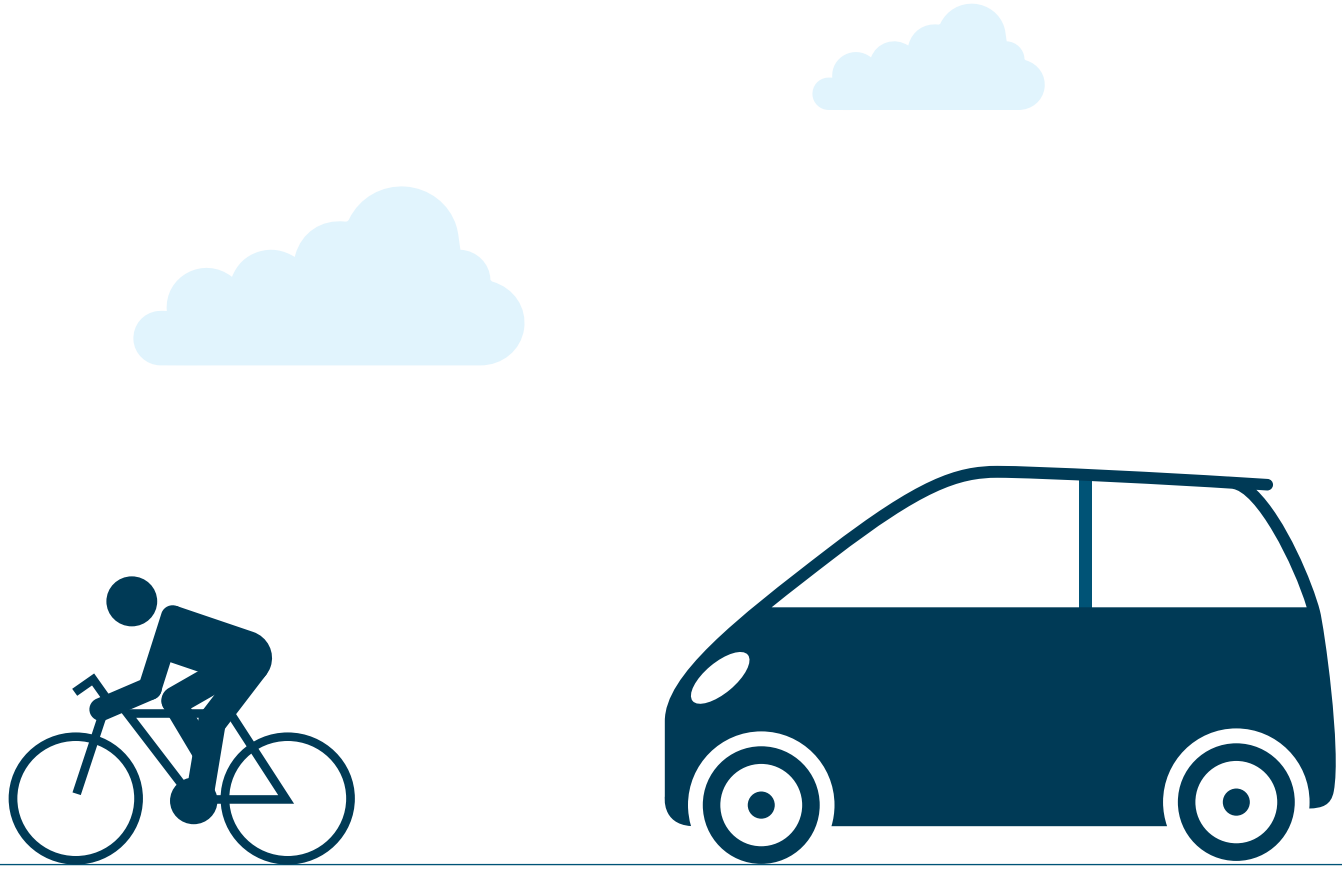
- We will follow the Safe Systems approach and work as part of the Road Safety Partnership with priority given to reducing the rate of killed or seriously injured casualties
- We will investigate the use and trials of new technology and innovation; for example, digitally connected vehicles that can 'speak' to each other to avoid collisions or data collection to inform drivers about road conditions
- We will deliver a range of initiatives including safety schemes and speed management with our partners.



Objective 7: A Well Managed and Maintained Transport Network.

LTP4 Strategy focusses core funding streams towards ensuring that the most important parts of the network are kept in good repair. In urban areas and market towns the strategy is to identify sustainable and active transport corridors to focus maintenance and network management.

- We will prioritise local transport grant funding towards maintenance of the most well-used parts of the network; to ensure A and urban / inter-urban routes are in good condition
- We will vigorously exploit all funding opportunities to deliver the widest range of schemes and other initiatives
- We will manage networks in urban areas and market towns to provide dedicated and priority measures for active travel and public transport
- We will use better evidence gained from technology to inform decisions, and develop our use of innovation to provide better data for improved understanding, enabling us to target resources more effectively
- We will take on powers to allow enforcement of moving traffic offences.



Layout and Structure of the Implementation Plan

This document is structured in the following way.

Chapter 1: Introduction

This Chapter gives a brief summary of the LTP strategy, the purpose of the Implementation Plan and proposals for keeping the local transport plan up to date.

The purpose of the Implementation Plan is to set out our proposals for the implementation of the policies in the adopted strategy.

Chapter 2: Implementations and Action Plan

This Chapter sets out our proposals for the implementation of the policies in the adopted Local Transport Plan (LTP) Strategy. These policies reflect the LTP objectives, which are:

1. Embracing the Future
2. Delivering a Sustainable Norfolk
3. Enhancing Connectivity
4. Enhancing Norfolk's Quality of Life
5. Increasing Accessibility
6. Improving Transport Safety
7. A Well Managed and Maintained Transport Network.

In this Chapter we take each objective in turn and set out:

- A narrative summary of our proposals for implementation for each objective
- Alternative options considered and the reasons why these are not preferred. We have listed alternatives only where these are reasonable: some different courses of action would not be reasonable to follow, for a variety of reasons, and so these have not been considered further
- Each agreed Policy in LTP4 strategy for the respective objective and, under each, a table showing our proposals for implementation of the policy. The table summarises the outcome that each measure would have, a guide to its date of implementation and its likely funding sources.

Chapter 3: Major and Significant Transport Schemes

This Chapter summarises current progress on the major and significant transport schemes currently being taken forward by the county council and other agencies, and those in the pipeline of projects that we intend to develop towards delivery. The projects included are those shown in the Norfolk Strategic Infrastructure Delivery Plan (NSIDP).

The Chapter notes that we are reviewing the NSIDP to ensure it more accurately reflects the range of projects being undertaken. This will include a range of decarbonisation projects, and other transport projects focused on active travel, public transport and decarbonisation.

Chapter 4: Funding and Delivery Structures

This Chapter gives an overview of the different sources of funding the county council receives, has access to, or is able to secure to deliver the projects and programmes. It includes a section summarising risks to delivery, the relationship of the local transport plan and other strategies, policy documents and guidance produced by the county council, and a summary of how we work in partnership from inception to delivery of projects. More detail on partnerships is shown in Appendix 1, and funding in Appendix 2.

The Chapter notes that government allocations for the core local transport plan grant will remain at current levels for the next three years, although we do not have certainty around their levels beyond that. Also, the amounts of funding secured through other means such as bids tends to be known over a short timeframe only, so we do not have certainty of funding beyond currently secured bids. For the purposes of the Implementation Plan, we have assumed that funding levels remain at similar levels to today. In real terms, this means a reduction in spending power since inflation in the construction sector is currently around 15% per annum.

Chapter 5: Targets

This Chapter shows the targets proposed for LTP4. We have selected targets for each objective of the LTP. We will also continue to monitor a range of other outcomes and data, and this will be reported separately. A summary is given in Appendix 3.

Contents

Chapter 1: Introduction

Summary

This is the Implementation Plan for Norfolk County Council's fourth Local Transport Plan and was adopted in 2022. It should be read in conjunction with the strategy, which covers the longer-term until 2036 and was developed taking available evidence into account and was the subject of consultation and appropriate appraisal and assessments. The county council has regard to the plan in exercising its functions as a transport authority, using it as a guide for transport investment in Norfolk as well as on the position the council will take when considering the transport impacts of initiatives considered by other agencies, for example in our response to consultations on planning or other delivery decisions. This Implementation Plan provides information on the delivery of the strategy and should be read in conjunction with the strategy.

The Local Transport Plan objectives are:

- Embracing the Future
- Delivering a Sustainable Norfolk
- Enhancing Connectivity
- Enhancing Norfolk's Quality of Life
- Increasing Accessibility
- Improving Transport Safety
- A Well Managed and Maintained Transport Network.

Norfolk County Council is the Highways Authority and is responsible for maintenance and management of most public roads and rights of way in Norfolk (except the A47 and A11 which are the responsibility of National Highways, formerly Highways England). The county council has a major influence on provision of other transport services, such as public transport, but is not directly or solely responsible for bus services, ports, airports, rail services or waterways. However, the county council has significant influence, and this is exercised through working with partners, government, and operators to achieve the best outcomes through these other bodies where possible.

Users of the transport network make decisions about when, where and how to travel, often dependent on their beliefs, motivations and the journey they are to make. It might not be possible or convenient to make a journey in a particular way because transport infrastructure, or service provision, is poor; or simply thought to be poor. The county council needs to engage to understand motivations and barriers, recognise what works for people so as to inform infrastructure and transport service delivery, and communicate messages about transport. That is why behaviour change forms part of the plan alongside delivery: it is integral to enable a shift to a more sustainable form of transport and low carbon.

Background

The purpose of this Implementation Plan is to set out our proposals for the implementation of the policies in the adopted strategy. We do this through setting out proposals under each of our seven objectives in the strategy, supplemented by tables showing the actions we intend to take. The tables of actions are not intended to show a list of individual schemes such as zebra crossings that will be delivered on the ground. Programmes for delivery on the ground are agreed annually. The tables in Chapter 2 set out measures and actions that will drive the detailed programme of capital expenditure for future delivery. We include a chapter on major and significant transport schemes as these projects have possibly the potential for the most significant impacts. The LTP4 Implementation Plan also covers funding sources, risks to delivery, and targets.

An overview of how the Implementation Plan is set out is shown in the Executive Summary.

In preparing the Implementation Plan, we took the opportunity to review the strategy so that it could reflect any changes or new guidance since its adoption at the end of 2021.

Review and update

Each year we will monitor a range of indicators, the targets in the LTP and undertake monitoring for the Strategic Environmental Assessment. The evidence supplied from the monitoring, and from the workstreams we will undertake in support of the plan, will be used to feed in to the detailed delivery programmes, ensuring that delivery can be adjusted, if necessary, to keep on track with achieving our objectives, outcomes and targets.

Chapter 2: Implementation and Action Plan

Introduction

This section sets out how we will implement the policies in the adopted Local Transport Plan (LTP) Strategy. These policies reflect the LTP objectives, which are:

1. Embracing the Future
2. Delivering a Sustainable Norfolk
3. Enhancing Connectivity
4. Enhancing Norfolk's Quality of Life
5. Increasing Accessibility
6. Improving Transport Safety
7. A Well Managed and Maintained Transport Network.

We have set out in each section below, taking each of our objectives in turn:

- A narrative summary for each objective
- Each agreed Policy in LTP4 strategy and, under each, a table showing how we will implement the policy. The table summarises the outcome that each measure would have, a guide to its date of implementation and its likely funding sources.

Assumptions

The Implementation Plan shown in the following sections and tables is not all currently funded. It has been prepared on the basis that the county council is able to secure resources equivalent to or exceeding current funding levels. This will require us to successfully secure funding from outside sources. Some of this will be from successful funding bids for individual projects or programmes or being able to secure funding from partners. Some of the actions will be undertaken within available county council staff resources and will need to be included in future work programmes.

Proposals for Implementation

Objective 1: Embracing the Future

LTP4 Strategy Summary

LTP4 strategy puts emphasis on the need to adapt to and use new technology to achieve better outcomes. The strategy recognises that users of the transport system increasingly use technology to inform their travel choices on the network: whether this be through mapping and navigation apps on mobile phones or choosing forms of transport such as hire bikes or e-scooters that were not available even a few years ago.

The strategy is that the county council is at the forefront of this technological change to ensure that, amongst other things, we:

- Can adapt to changing use of the network
- Can influence change
- Understand the impact of our interventions
- Understand the motivations for the choices people make
- Better target and deliver interventions because we understand their likely impacts.

Approach to Implementation

Our approach to implementation will be to make better use of technology. We will explore trials of future transport systems such as autonomous and digitally-connected vehicles, or 'mobility as a service' solutions (for example mobile apps allowing people to book and pay for journeys that otherwise would be difficult to plan or make). This will be supported by a range of measures including developing more effective ways of understanding use of the network through using satellite or mobile data on people's movements, utilising more effective monitoring methods like video technology that can automatically recognise different user types on the network (this can replace the use of costly surveys) or via low-cost sensors and the like that can reliably measure air quality or available clearance under bridges to inform boat users, for example. We will develop our indicator and monitoring work streams so we are better informed about use of the network and the impacts that changes we make have.

This will lead to a revolution in the transport system: autonomous or digitally connected vehicles will open up opportunities for people who currently have no access to services because they do not have access to transport; digitally connected vehicles could lead to more efficient use of transport networks and support our aim of reducing killed and seriously injured casualties. More effective ways of better understanding use of the network by exploiting innovation will enable us to plan more effectively. Increasing the data offer will enable better planning of sustainable and active travel. This will lead to outcomes including reducing carbon and better air quality.

Improving digital connectivity will reduce people's travel, allowing home-working. We will also facilitate and encourage change to more sustainable modes and more efficient vehicles through a range of measures. We will explore opportunities to participate in projects and trials to decarbonise the transport system including delivery solutions by for example autonomous or semi-autonomous electric vehicles / pods to reduce the numbers of van related delivery trips. We will develop and deliver a behaviour change programme under the brand of Travel Norfolk. This will act as a journey planner that encourages and provides information on sustainable travel. We will launch a targeted marketing campaign aimed at getting people back on the bus through our Bus Service Improvement Plan. We have developed and adopted an electric vehicle strategy and will now focus on its delivery to facilitate faster switch to electric vehicles. Our initial action here is to work with partners on delivery of the Charge Collective project to ensure early roll-out of on-street charging points in Norwich. We will continue our bike hire scheme in Norwich, which has been very successful. We will investigate their roll-out to other locations. Our trial of e-scooters in Norwich and Great Yarmouth is also proving successful and we will continue to work on this with the Department of Transport to establish if these can become permanent measures and, again, if it can be rolled-out to other locations. We will continue to monitor the trials and reflect any learning points in future roll-outs.

These actions will be more effective by embracing technology and innovation. They will lead to reduced travel, more sustainable and active travel. People will have better health outcomes by being more active and through improvements in air quality. Carbon will be reduced, contributing to our targets for carbon neutrality across all sectors, and our LTP target for carbon reduction.

Our approach to this work will be to work in partnership, such as with Transport East at a regional level, or with IT developers at a very local level for low-cost sensors and monitoring equipment.

Summary of our preferred approach to implementation of the policies in the adopted Local Transport Plan Strategy

In summary, our approach to implementation will be to:

- Trial and adopt innovative approaches, which have the potential to bring a step-change in people's ability to get to services and facilities where currently travel is a barrier and to support other outcomes such as carbon reduction
- Make better use of technology and innovation. This will lead to better understanding of network use and will enable us to plan more effectively
- Facilitate and encourage changes in how people move about the network through development of a behaviour change programme, targeted marketing campaign aimed at getting people back on the bus and expanding the offer of measures such as e-scooters and bike hire schemes and investigate their roll-out to other locations. This will lead to better health outcomes for people, reduced carbon and better air quality
- Deliver our electric vehicle strategy to facilitate faster switch to electric vehicles, supporting our carbon targets. Work on achieving zero-carbon across the council's own estate will be electrification of, or clean fuelling, our own fleet and contracted services like school travel.

Our approach to this will be to work in partnership.

Table of Actions

Note: In the following tables, the policies are those in the agreed transport strategy. The following tables show how we will implement of those policies.

Policy 1 of the adopted LTP4 Strategy under Objective 1: Embracing the Future

We will plan and prepare the county for future challenges and changes to ensure the best for our society, environment and economy, and to actively review these developments through time.

Implementation of the policy

Actions	Outcome/Benefit	Timescale	Funding
Explore opportunities and funding for trials of new forms of transport and mobility (such as autonomous vehicles, or digitally connected vehicles)	Autonomous vehicles could revolutionise transport, opening up opportunities for people currently unable to travel to make connections. Digitally connected vehicles will lead to safer, more efficient use of transport networks	2022 and onwards. We will explore suitable opportunities as they arise	NCC, grants, partners
Explore the use of Artificial Intelligence and cognitive thinking to help plan for and manage transport networks	The use of systems for collecting and analysing big data will improve transport operators' offer (ie services provided by bus companies etc) and the offer to customers	2022 and onwards. We will explore suitable opportunities as they arise	NCC, grants, partners

Actions	Outcome/Benefit	Timescale	Funding
Review and revise the highway network performance report. Increase the focus on public transport, walking & cycling, electric vehicles and air quality	A focus on these areas will ensure that we understand, and can better plan for, active travel, public transport and clean vehicles to achieve objectives for better air quality, reduced carbon and better health outcomes	Autumn 2022 and then annually	NCC Staff
Monitor outcomes and indicators in the Asset Management Strategy Performance framework	Monitoring a range of indicators will give increased understanding, enabling better management of the network	Annually	NCC Staff
Undertake vulnerability assessments of transport networks: Undertake Resilient Network Assessment on core A roads which identify vulnerability	Vulnerability assessments will lead to identification of areas to target resource and improve the resilience of the most important parts of the network to threats such as increased flooding due to climate change	2022 and then annually as necessary	NCC Staff
Review Winter Service Policy	Regular reviews will lead to more efficient delivery of the winter activities, such as gritting, and ensure people are able to access the services that are required	2022 and then annually as necessary	NCC Staff

Policy 2 of the adopted LTP4 Strategy under Objective 1: Embracing the Future

The priority for reducing emissions will be to support a shift to more sustainable modes and more efficient vehicles, including lower carbon technology and cleaner fuels; this includes the facilitation of necessary infrastructure.

Implementation of the policy

Actions	Outcome/Benefit	Timescale	Funding
Explore opportunities to participate in projects and trials to decarbonise the transport system Explore opportunities for first mile / last mile delivery solutions by for example autonomous or semi-autonomous electric vehicles / pods to reduce the numbers of van related delivery trips	Reduced carbon, contributing to our environmental policy targets for net zero on our own estate, and carbon neutrality across all sectors, by 2030	2022 and onwards	NCC, grants, partners
Deliver our Electric Vehicle (EV) strategy. The county council can play an important role in helping to increase the uptake of electric vehicles by ensuring that the necessary charging infrastructure is in place. As part of delivery consider how to plug gaps in chargepoint coverage including in rural areas	Delivery will ensure benefits of switching to EVs are realised as quickly as possible; identified as one of the most effective means of reducing carbon, contributing to our environmental policy targets for net zero on our own estate, and carbon neutrality across all sectors, by 2030 Improvements to air quality by bringing cleaner air at the point of use, improving health outcomes for significant numbers of people Our EV strategy will help to remove inequalities in access to charging points based on where people live or work, giving more people the opportunity to use electric vehicles	Ongoing from 2022	NCC, DfT / OZEV, private investment

Actions	Outcome/Benefit	Timescale	Funding
Deliver 'Charge Collective,' a regional pilot looking to promote on-street charge points for electric vehicles. This is being conducted in partnership with our regional electricity network operators UK Power Networks	Cleaner air, significantly improving health outcomes	Spring 2022	Partner funding, OZEV grants for on street residentail schemes
Take forward energy projects such as Local Area Energy Planning to ensure resilience of local energy networks required for a shift to electric vehicles	Local Area Energy Planning will support decarbonisation commitments	2022	NCC, partner funding
Support bikeshare and e-scooter trials and look at opportunities at expanding out the bikeshare offer	These initiatives open up sustainable transport for a wider number of people, increasing the opportunity for people to access services such as education and training. They lead to better connectivity, cleaner air and reduced traffic	Ongoing for current schemes. Expansion will be explored following LCWIP adoption at end 2022	NCC, DfT, private investment
Develop Local Cycling and Walking Infrastructure Plans (LCWIPs) for countywide coverage	LCWIPs will inform our planning of active travel networks across the county, meaning better connectivity for active travel modes, cleaner air and reduced traffic	Norwich, King's Lynn and Gt Yarmouth Spring 2022 Norfolk LCWIP by end 2022	NCC, partner funding
Work with Transport East on bringing forward EV infrastructure	Benefits expected to be similar to those above for our EV strategy	2022/23	NCC Staff time, Transport East

Actions	Outcome/Benefit	Timescale	Funding
Adopt Parking Standards to (amongst other things) ensure every new home with a parking space has an EV charge point	As above	Summer 2022	LTP, CIL, developer funding, funding bids Staff time
Adopt EV parking standards for new workplaces and other new non-residential developments	As above	Summer 2022	LTP, CIL, developer funding, funding bids Staff time

Policy 3 of the adopted LTP4 Strategy under Objective 1: Embracing the Future

Innovation and new technologies will be embraced and used proactively in order to achieve our vision, including responding to new targets set by the recently adopted environmental policy.

Implementation of the policy

Actions	Outcome/Benefit	Timescale	Funding
Investigate the delivery of 'Mobility as a Service' solutions. Such solutions could range from car-sharing to phone apps that allow customers to make easy, multi-modal journeys. The customer simply enters details of the journey they wish to make, and the app plans the journey and makes a single charge to the customer	Mobility as a Service will lead to reduced travel by car, reduced single-occupancy trips by car and therefore reduce carbon, improve air quality and reduce congestions whilst also improving people's connections to services and facilities	2022 and onwards. We will explore suitable opportunities as they arise	NCC staff
Seek opportunities to improve digital, phone and other forms of information connectivity to support LTP objectives.	Improving digital, phone and other connectivity will reduce travel by supporting the needs of businesses, home and other services. It will improve people's connectivity to services and reduce carbon emissions. Improving connectivity to digital and phone services will also support people's use of the transport network and enable users to better access travel apps, mobility as a service offers and other information	Ongoing	NCC Staff, partners

Actions	Outcome/Benefit	Timescale	Funding
Explore and utilise innovative monitoring equipment to show usage of the transport network (eg video technology that recognises different user types, use of GPS, mobile or telephone data)	Better outcomes informed by better data Increased ability to monitor	Ongoing	NCC, DfT grants, local contributions Scheme evaluation funding no funding in place
Investigate trial of a smart street, showcasing a range of technological innovations to enable better service delivery across a range of functions (eg street bins, air quality, street usage)	Better service delivery across a range of functions	Medium term	NCC, partners
Explore the use of low-cost air quality monitoring equipment including trialling the use of innovative, low-cost and portable devices	Technology is leading to development of products that provide quality data but are cheaper and easier to deploy than traditional monitoring techniques. Their use will give us better data to help inform delivery, leading to better outcomes	Ongoing	NCC, grant funding
Work with Transport East on Regional Agent Base Model + travel and behaviour data. This is an innovative modelling tool	This will give a better understanding about use of the transport network, allowing us to better plan for the types of trips that people are likely to make, and better understand how changes we make might affect these trips. It will be used to achieve a range of better outcomes	2022/23	Transport East
Implement the Bus Service Improvement Plan objective of multi-operator ticketing	Multi-operator ticketing leads to a better customer offer where users do not need to worry about having to purchase different tickets for different services. This in turn leads to increased bus patronage	By April 2025	DfT BSIP funding

Policy 4 of the adopted LTP4 Strategy under Objective 1: Embracing the Future

We will work with people to shape the way they travel, why they are travelling and whether they need to travel, encouraging behaviour change and interventions that can help to increase the use of sustainable transport.

Implementation of the policy

Actions	Outcome/Benefit	Timescale	Funding
Develop an online information hub under the brand of Travel Norfolk to encourage behaviour change. This will act as a journey planner that encourages sustainable travel as the preferred method of transport. This hub will also provide a high quality resource of information to help people break down barriers that remain to using sustainable transport	Healthy more active population More people travelling sustainably Less reliance on single occupancy vehicles leading to a reduction in emissions and pollution hot spots	By March 2023	NCC, DfT Active Travel funding, partner funding
Promote behaviour change through Getting Norfolk Active: Active Norfolk's 2021-2026 strategy • Advocating for walking and cycling to be the first choice for short journeys • Promoting physical activity's contribution to carbon reduction targets • Addressing other barriers that prevent this positive behaviour change Promote change to achieve the LTP objectives with a focus on sustainability, quality of life, accessibility and safety.	Healthy more active population More people travelling sustainably Contribute to a reduction in carbon emissions	Ongoing	NCC staff, Sport England

Actions	Outcome/Benefit	Timescale	Funding
As part of behaviour change and road safety campaigns investigate the need for, and use of, appropriate messaging and training for how people use new forms of transport such as e-scooters on the network	New forms of transport can cause difficulties, either real or perceived, for some users of the transport network. Appropriate training and messaging can remove barriers for people using sustainable modes of transport and help achieve outcomes including better health and well-being	Ongoing	NCC. Other partners
Deliver travel plans at residential development	Travel plans identify the sustainable transport infrastructure and services required at new developments. It will lead to Reduced travel, Sustainable travel, Better connections from residential developments to services and facilities Supports our target for this LTP4 Objective	Ongoing	NCC, Developers
Monitor travel habits at residential developments through travel plans delivered via our AtoBetter programme	Ongoing monitoring provides a feedback loop to help inform future provision of measures, increasing sustainable travel. Benefits as above	Ongoing	NCC, Developers

Objective 2: Delivering a Sustainable Norfolk

LTP4 Strategy Summary

The local transport plan strategy puts emphasis on working in partnership with others, particularly district councils and the Broads Authority as the local planning authorities, and developers to help shape the county's development plans and proposals. We will continue to work in partnership from the outset to secure necessary transport infrastructure and services, and build in sustainability from the start.

The emphasis of the strategy is placed on supporting development to come forward, and ensuring:

- It is in places where sustainable travel is an option and in easy reach of services and facilities that people need to access
- We understand implications of new development and take them into account right at the start of the process. Doing this, sustainable transport can be embedded into development proposals with infrastructure provided up-front. Mechanisms for achieving carbon reductions, or offsetting, can start to be built in; and air quality can be improved.

Approach to Implementation

Our approach to delivery will be to continue to put resources into partnership work with local planning authorities, developers and other service providers to help shape delivery right from the start. We will review and roll-forward our suite of supporting studies and guidance documents. This includes our series of market town network improvement strategies undertaken in 2018 and 2020. These looked at places with planned high levels of growth to understand impacts on the transport network, enabling necessary interventions to be devised and understood. We will also review and roll-forward: the planning and health protocol to ensure principles of health and wellbeing are adequately considered in plan making; Safe Sustainable Development (guidance document for new developments); the Norfolk Strategic Infrastructure Delivery Plan; and our Parking Standards.

Doing this will build in mechanisms to achieve our desired outcomes and benefits. These include reducing travel by ensuring development is sited in places within easy reach of services and facilities, better health outcomes for people, more liveable places, better connected places, cleaner air and carbon reduction. The guidance documents and evidence bases provide a foundation for securing amongst other things EV chargers in residential developments, active travel networks and other necessary transport infrastructure and services. This helps achieve a range of desired outcomes including reduced carbon, better air quality, better connectivity to services and improved health outcomes for people.

A key new strand will be to instigate new workstreams to consider how to monitor and offset carbon impacts arising from new development. We have committed to Actions to develop carbon plans and budgets and to devise methodologies to achieve carbon neutrality from new residential and employment developments are included in this Implementation Plan. We will adopt into guidance documents our expectations of how developers would need to demonstrate that development addresses air quality or how they will bring forward measures to address the issue.

Writing these into future reviews of our guidance documents for new developments will achieve air quality and carbon objectives.

The county council will also continue to work with partners in locations including West Winch, North Walsham and East Norwich in order to bring forward large numbers of much-needed new homes and, in East Norwich, on an exciting opportunity to regenerate a large site well-placed within close reach of city amenities. This work will allow development proposals to be considered in wider, holistic planning of the area. It also considers what transport infrastructure needs bringing forward. Our approach to implementation will be to ensure this gives major consideration to low carbon transport, active travel and public transport.

We are supporting the delivery of sustainable travel plans at residential developments, including through our in-house provision AtoBetter. Our teams will work with the new communities to develop and deliver travel plans. We will work with other active travel groups who are also looking to expand this function with schools. Delivering effective travel plans will enable people to be able to get to services and facilities, and identify and deliver necessary local sustainable connections.

Norfolk County Council has started to trial new School Streets, which are timed road closures around selected schools in Norfolk. During pick-up and drop off times, certain roads will be closed to vehicles in order to allow children to travel safely to and from their school. The Norfolk School Streets programme is a proposed trial which aims to make the journey to and from school not only safer but more pleasant and encourage use of sustainable transport as an alternative to the private car. The trial is run in Partnership with Sustrans and with funding from the Active Travel Fund.

Summary

Our approach to implementation will therefore be to continue to put resources into our work at all stages on new development:

- Working with district councils, developers and other partners on reviews of local plans, at individual sites or allocations, in pre-application discussions and as a statutory consultee on planning applications. This will bring forward well-formulated development proposals in places within reach of services and facilities, enabling people to get to places by a range of sustainable travel options and in turn reduce carbon, improve air quality and create better communities
- Building evidence bases to inform of impacts of growth. This will identify infrastructure requirements to be understood up front and be planned for. This will benefit places, providing better connections and reducing congestion
- Keeping our guidance up to date. A key part of this will be embed carbon mitigation and budgets, and air quality requirements, into future reviews, achieving objectives and targets in these areas
- Devising and delivering travel plans at new developments, including monitoring travel behaviour at new developments to feed back into future decision-making. This will help understand people's travel patterns and enable sound planning if future interventions.

Our approach will be to work in partnership on these issues.

Table of Actions

Policy 5 of the adopted LTP4 Strategy under Objective 2: Delivering a Sustainable Norfolk

We will work with partners to inform decisions about new development ensuring they are well connected to maximise use of sustainable and active transport options. This will make new developments more attractive places to live, thus supporting a strong sense of the public realm.

Implementation of the policy

Actions	Outcome/Benefit	Timescale	Funding
Review the planning and health protocol to ensure principles of health and wellbeing are adequately considered in plan making, and when evaluating and determining planning applications. This will include considerations of connection to, and accessibility of, public and active travel options	Better health outcomes Sustainable travel	Ongoing	NCC
Review the Norfolk Infrastructure Delivery Plan (NSIDP) to ensure it captures the full range of projects being delivered to support growth including decarbonisation projects, and transport projects focused on active travel, public transport and decarbonisation	The review will provide a more balanced view about the projects of importance. It will show how a range of projects is important for growth in the county and how sustainability and climate change objectives are being reflected in our work	Winter 2022	NCC Staff time, district council staff time

Actions	Outcome/Benefit	Timescale	Funding
Review and roll forward the market town Network Improvement Strategies	Reviews will help to inform infrastructure requirements from growth, allowing infrastructure first, a county council objective. Help shape locations of growth so it is in the most sustainable locations Achieve outcomes: Reduced travel; Sustainable travel; People able to get to services and facilities; Better public realm	2023-2025	NCC, partners including district councils
Take forward work with partners on infrastructure requirements to unlock growth, including: • N Walsham housing link road • East Norwich masterplan • W Winch masterplan • Thetford A11 junctions and successor to link road work • Bradwell	Achieve outcomes: Reduced travel; Sustainable travel; People able to get to services and facilities; Better public realm	Ongoing	NCC, local authority partners, National Highways, developers

Actions	Outcome/Benefit	Timescale	Funding
Review Safe Sustainable Development (guidance document for new developments)	Reviews of guidance documents will embed LTP4 principles, objectives and outcomes This will lead to: More sustainable development; Better connections for people in developments; Cleaner air; Reduced carbon	2022 and annual updates as appropriate following LTP4 Implementation Plan adoption	NCC staff
Review Parking Standards	Reviews of guidance documents will embed LTP4 principles, objectives and outcomes This will lead to: Cleaner air; Reduced carbon	2022 and annual updates as appropriate following LTP4 Implementation Plan adoption	NCC staff
Work as part of the Greater Norwich Development Partnership and Greater Norwich Local Plan Partnership	Working at all stages will help to shape the location of growth so that it is in easy reach of services and allow us to plan for infrastructure first. This will lead to: Reduced travel; Sustainable travel; People able to get to services and facilities	Ongoing	NCC Staff, districts

Actions	Outcome/Benefit	Timescale	Funding
Work with district councils and the Broads Authority as local plans are reviewed	As above	Ongoing	NCC
Provide comments on neighbourhood plans to inform their development	As above	Ongoing	NCC
Work with county council service providers on location of services, eg schools	Being involved in planning stages will enable transport to be part of the decision-making process to enable services can be sited in places in easy reach. Will lead to increased access to the range of services	Ongoing	NCC
Work closely with DfT, National Highways, Network Rail / Great British Railways and other local authorities to influence transport decisions in Norfolk to ensure good connectivity to new developments	This will improve economic outcomes by ensuring new developments have good connectivity to major transport links	Ongoing	NCC

Policy 6 of the adopted LTP4 Strategy under Objective 2: Delivering a Sustainable Norfolk

We will work with the development community and local stakeholders to ensure greener transport solutions are embedded in land-use planning to significantly reduce traffic generation by private car. We will also work to ensure that the necessary infrastructure to support the transition to a clean transport network is in place. We will seek that that any carbon impacts are monitored and offset by locally applicable measures. As part of our ongoing work on developing guidance for how we will deal with new development we will amongst other things consider how to establish carbon plans and budgets and devise methodologies to achieve carbon neutrality.

Implementation of the policy

Actions	Outcome/Benefit	Timescale	Funding
Consider options for monitoring and offsetting carbon impacts arising from new development Alongside this, develop carbon plans and budgets and devise methodologies to achieve carbon neutrality from new development Write these into future reviews of our guidance documents for new developments	This will support the county council's carbon reduction targets in the LTP and our Environmental Strategy	2023 Include outcomes into future reviews of NCC documents as appropriate	NCC Staff
Work with other active travel groups to expand sustainable travel plans to schools.	This will lead to reduced car-use at schools, better active travel connections and mode shift to sustainable travel. Supports LTP carbon target; Reduces carbon; Improves air quality	2023	NCC, schools, active travel groups

Actions	Outcome/Benefit	Timescale	Funding
Engage with developers in pre-application discussions on major sites to secure sustainable transport links In our role as statutory consultee on planning applications, seek sustainable transport links	Will ensure new development has sustainable transport connections, leading to reduced carbon and improved air quality	Ongoing	NCC, developers, district councils
Develop proposals for, and introduce, pre-application charges	Revenue stream that can support services in achieving LTP outcomes	2022	NCC
Work with partners on the development of land-use planning documents: See above, policy 5	See above, policy 5	See above, policy 5	See above, policy 5
Review Safe Sustainable Development Review Parking Standards	See above, policy 5	See above, policy 5	See above, policy 5
Deliver travel plans at residential development	See above, policy 4	See above, policy 4	See above, policy 4

Policy 7 of the adopted LTP4 Strategy under Objective 2: Delivering a Sustainable Norfolk

In air quality management areas development will need to demonstrate its positive contribution to tackling the air quality problem.

Implementation of the policy

Actions	Outcome/Benefit	Timescale	Funding
Roll-forward our 2022 review of Safe Sustainable Development to adopt guidance on our expectations of how developers would need to demonstrate how development would address air quality or bring forward measures to address the issue	Reviews of guidance documents will embed LTP4 principles, objectives and outcomes This will lead to: Cleaner air	2023/24/25	NCC Staff
Take account of any changes to UK law, best practice or guidance following new air quality guidelines announced by the World Health Organisation in 2021	The new guidance is likely to tighten threshold to improve air quality	Following any changes to UK law or guidance	NCC Staff

Objective 3: Enhancing Connectivity

LTP4 Strategy Summary

The Local Transport Plan strategy sets out the importance of connections between, and into, major centres and gateways. This is because such connections are needed to support the economic vitality of the county and ensure that it does not lose out on investment into housing, employment, retail, leisure and other services that might otherwise go to better connected places in the country. The evidence also shows that the major connections into and within the county are not as good as elsewhere in the UK.

For this reason, the strategy sets out that they must be improved to provide better, faster and more reliable journeys. However, this must be done in a way that puts transport firmly onto a net zero carbon trajectory.

Approach to Implementation

Our approach to implementing this strategy will be to continue to make the case for improvements so that investment is secured into the networks. We will do this by working in partnership with others, continuing to work in partnership along transport corridors and be involved in a number of rail task forces as well as leading the A47 Alliance. Our work to secure investment will be evidence-based. We will contribute to the evidence bases and business cases for the projects. We will work at all political levels to make the cases through advocacy.

We will also work with Transport East, the Sub-national Transport Body for the area representing the Norfolk, Suffolk, Essex, Southend and Thurrock. Transport East provides a strong voice to government on the issues, representing the views of its members. It also works nationally and in collaboration with engaged with other Sub-national Transport Bodies. We will remain a member of this important partnership to influence its work and make sure our voice is heard within government.

By working in these partnerships we will be able to represent the views of the county council and seek to ensure the best outcomes for our residents and businesses. We are seeking improved connections that offer faster journeys, improved reliability and better resilience. Achieving these aims will bring benefits to the wider Norfolk economy. By making journeys quicker and more reliable, reducing uncertainty for businesses, it is likely that there will increased investment into the county, accelerating the delivery of much-needed housing growth and bringing forward jobs and other services.

There will be a focus on decarbonisation, and making sure networks are fit for future technological advances, built into the programmes of work. This is crucial as it will support our carbon ambitions and targets.

We will develop a suitable proportionate methodology to assess the carbon impacts of individual schemes the county council brings forward. We will consider the requirements of relevant guidance when it is published to inform quantification of carbon emissions from the Plan as a whole. We will build in low carbon objectives and the future role of the strategic networks into our activities including on supporting A47 improvements.

We will also investigate funding opportunities to deliver a range of initiatives to deliver clean freight including e-cargo bikes, freight consolidation centres and more innovative technologies such as drones or automated vehicles / pods. We will continue to develop our programme for greenways and active travel on disused rail corridors, linking with the Norfolk Trails network. This will maintain these corridors as transport routes and maintain the possibility, in the longer term should it be considered appropriate, that other uses such as rail to come forward.

This will support the policy objective to ensure that the network priority is that it is used by clean transport modes, reducing carbon, improving air quality and leading to better health outcomes.

We will target the strategic connections between and into major centres and will work on bringing forward the necessary transport infrastructure required to facilitate and enable housing and jobs growth. Chapter 3 details the larger and more significant schemes within the county included within the Norfolk Strategic Infrastructure Delivery Plan, some of which are included within current government programmes. Schemes in the Plan include the West Winch Housing Access Road, required to release up to 4,000 houses and improve the major road network connection of the A10, and Great Yarmouth Third River Crossing. This is currently under construction and will provide better connections between the port area and the strategic trunk road network.

Our approach to implementing the strategy of better connectivity will be to continue to bring these to delivery. Delivery will support economic objectives and bring forward housing and jobs growth. Each scheme will be required to demonstrate its own case as it comes forward, showing at the appropriate point and to the appropriate degree of detail, how it meets amongst other things relevant objectives and value for money. A key part of this will be to demonstrate its carbon credentials. This is already undertaken as part of the relevant funding and statutory approvals process, but we will also examine how we can incorporate a light-touch assessment into the development of projects on our pipeline at an earlier stage in order to help inform choices.

As part of our implementation approach, we will introduce appropriate and proportionate assessments of impacts for all schemes. We intend to undertake carbon assessments as one part of this in order to help decision-making and to understand impacts and how these might be reduced.

Summary of our preferred approach to implementation of the policies in the adopted Local Transport Plan Strategy

Our approach to implementation will therefore be to:

- Work with a range of partners on significant projects and programmes that improve connectivity into and within the county. This includes making the case for improvements on the strategic trunk road and rail connections to London, Cambridge, Peterborough networks with a focus on achieving low carbon in the way that these networks are used. This will help to achieve better, cleaner connectivity and bringing forward economic outcomes for the county.
- Take forward schemes that are included in the current government large local major and major road network funding streams. These are Long Stratton Bypass, Norwich Western Link, West Winch Housing Access Road, A47/ A17 Pullover Junction, King's Lynn. Delivery of the Great Yarmouth Third River Crossing has already started on the ground and will be completed open to traffic by early 2023. These schemes are expected to realise a range of benefits. They all have detailed business cases, at various stages of development, setting out scheme objectives, benefits and impacts. Appropriate relevant consideration and assessment will be required for each scheme at the appropriate stages in their development before any decision about whether to progress to the next stage. Each will need to prove its case in order to draw down funding and receive any statutory consents or approvals needed prior to delivery on the ground. A key part will be consideration of carbon credentials of each scheme.
- Reduce carbon and improve air quality by making sure impacts are known and measures taken to reduce impacts in bringing forward schemes that improve connectivity. We will do this by assessing the carbon impacts of schemes the county council brings forward. We will develop and deliver low-carbon connectivity through countywide Local Cycling and Walking Infrastructure Plans, and the Bus Service Improvement Plan. These measures will lead to acceleration of carbon reduction, and help to achieve our outcomes of improved connectivity and accessibility.

Table of Actions

Policy 8 of the adopted LTP4 Strategy under Objective 3: Enhancing Connectivity

Our priority will be to improve major road and rail connections between larger places in the county, and to major ports, airports and cities in the rest of the UK.

Implementation of the policy

Actions	Outcome/Benefit	Timescale	Funding
Make the case for early electrification of the remainder of the rail network serving the county	Electrification will reduce diesel-powered trains, leading to reduced carbon	2022/23	NCC Staff time
Look to secure inclusion of rail, trunk road and major road networks in digitally-connected programmes	Digital connections will facilitate enable, inter alia, autonomous technologies leading to more efficient freight networks to deliver operational and consumer benefits, connected vehicles for better safety and more reliable and frequent rail services	2023/24 as part of Roads Investment Strategy work led by National Highways	NCC Staff time

Actions	Outcome/Benefit	Timescale	Funding
Remain an active member of Transport East and work with Transport East on development of its transport strategy and its subsequent delivery, and any review	Transport East provides a strong voice for the region and can secure investment into the network to achieve better outcomes including connectivity and economic outcomes.	Ongoing	NCC, Transport East
Work with Transport East on Connectivity Study Work with Transport East on Rail Connectivity	Better connectivity Better economic outcomes Reduced carbon	2022/23	NCC, Transport East
Continue to lead and coordinate the A47 Alliance Review the Alliance programme and activities to include further focus on carbon and technology (See Policy 9)	Better connectivity Better economic outcomes More reliable journey times Reviewing the programme will enable low carbon, clean fuels and technology improvements to be realised in future planning	2022/23	NCC, A47 Alliance

Actions	Outcome/Benefit	Timescale	Funding
Work with partners on Task Forces and other consortia making the case for rail improvements. These include: • East West Rail (EWR) Main Line Partnership (formerly the Consortium) to build the case and the evidence base for the East West Rail Main Line • Great Eastern Main Line (GEML) Task Force (Norwich to London) • Ely Task Force (to make the case for improvements that would unlock a range of passenger and freight services)	Investment in rail will unlock the potential for quicker journeys and increased frequencies. Rail is important to support the economy of the county and improvements will lead to better economic outcomes. Better rail travel will also encourage a shift away from car-use leading to outcomes including reduced carbon and congestion	EWR Main Line • Interim Strategic Outline Business Case 2022 • Develop Full SOBC post-2022/23 GEML • Strategic Outline Business Case development 2022/23 • Outline Business Case development post-2023 Ely • OBC to be submitted to government spring 2022 • FBC post 2022	NCC, East West Rail Main Line Partnership, East West Rail Company, partners on the other Task Forces, DfT
Work with partners to understand the evidence base to identify and secure improvements to transport gateways	Better connectivity Better economic outcomes	Ongoing	NCC, private investment
Take forward schemes within the control of the county council that are included in the current government large local major and major road network funding streams; and develop the schemes in the Norfolk Strategic Infrastructure Delivery Plan within the control of the county council. This subject to appropriate consideration of the merits of the scheme at relevant stages of development	Better connectivity Better economic outcomes	Ongoing	NCC, DfT, CIL, developers

Policy 9 of the adopted LTP4 Strategy under Objective 3: Enhancing Connectivity

Our priority for improved connectivity will be that the network is used by clean transport modes.

Proposals for implementation of the policy

Actions	Outcome/Benefit	Timescale	Funding
Assess the carbon impacts of schemes the county council brings forward	See Policy 11	See Policy 11	See Policy 11
Investigate funding opportunities to deliver a range of initiatives to deliver clean freight including pick-up points, e-cargo bikes, freight consolidation centres (where last-mile deliveries are made by clean modes) and more innovative technologies such as drones or automated vehicles / pods (see Policy 2)	Local deliveries are increasing given the on-demand culture and the increased prevalence of work from home. Delivery of initiatives will reduce congestion, reduce carbon and improve air quality whilst maintain customer expectation	Ongoing	NCC, grants and bids, partners

Actions	Outcome/Benefit	Timescale	Funding
Prepare evidence to support the case for improvements, reviewing previous work to – in particular – update and build in low carbon objectives and the future role of the A47 given technological advancements	Reduced carbon Improved air quality	Ongoing	NCC, A47 Alliance
Work with National Highways to secure active travel and public transport improvements on the trunk road network	Reduced carbon Improved air quality More active ravel Better connectivity between communities	Ongoing	NCC, National Highways
Actively seek funding investment from central government in partnership with bus operators to bring zero emissions buses to Norfolk and enable a transition to zero emissions vehicles	Reduced carbon Improved air quality	Ongoing as opportunities arise	DfT
Develop and deliver a programme of active travel connections on disused rail lines	Supports access to greenspace for exercise and connection to employment and neighbouring communities by active travel. Ensures corridors remain available for future transport uses such as rail should this be considered appropriate	Ongoing	NCC, partners, DfT

Actions	Outcome/Benefit	Timescale	Funding
Implement a Behaviour Change Programme	This is set out above under Policy 4	See Policy 4	See Policy 4
Develop LCWIPs to set out policy for walking and cycling	This is set out above under Policy 2	See Policy 2	See Policy 2
Deliver our EV strategy	This is set out above under Policy 2	See Policy 2	See Policy 2

Policy 10 of the adopted LTP4 Strategy under Objective 3: Enhancing Connectivity

We will seek to improve connectivity between rural areas and services in urban centres.

Implementation of the policy

Actions	Outcome/Benefit	Timescale	Funding
Develop countywide Local Cycling and Walking Infrastructure Plans (LCWIPs)	LCWIPs will inform our planning of active travel networks across the county, meaning better connectivity for active travel modes, cleaner air, reduced traffic and reduced carbon	King's Lynn, Norwich and Great Yarmouth Spring 2022, County Wide Winter 2022	NCC, Active Travel Fund
Consult on the draft Walking and Cycling Strategy	The strategy will set out the context and framework for a range of initiatives leading to an increase in walking and cycling. This will lead to: Reduced carbon; Better air quality; Improved health outcomes; Better connectivity	Summer 2022	NCC, Active Travel Fund

Actions	Outcome/Benefit	Timescale	Funding
Implement the Bus Service Improvement Plan to improve public transport services and infrastructure connecting into settlements	This is set out under Objective 5: Accessibility	See Objective 5: Accessibility	See Objective 5: Accessibility
Trial innovative technology in different parts of the network by developing prototypes, preferably with local companies	This is set out under Objective 1: Embracing the Future	See Objective 1: Embracing the Future	See Objective 1: Embracing the Future
Deliver our EV strategy: Encourage stakeholders to deliver charge points at other key destinations including supermarkets and rail stations	This is set out under Objective 1: Embracing the Future	See Objective 1: Embracing the Future	See Objective 1: Embracing the Future
Investigate the delivery of 'Mobility as a Service' solutions. See Policy 3	See Policy 3	See Policy 3	See Policy 3

Objective 4: Enhancing Norfolk's Quality of Life

LTP4 Strategy Summary

The Local Transport Plan strategy puts a clear priority on carbon reduction. We have already started to implement a range of measures to improve low carbon and clean transport including the Transforming Cities programme in Norwich, complementing ongoing delivery of the Pedalway network, measures to reduce traffic within the city centre and the introduction of hire bike and e-scooter schemes. We have also set out more detailed place and mode-specific plans and strategies including the Bus Service Improvement Plan and the Transport for Norwich Strategy. We are in the process of adopting countywide Local Cycling and Walking Infrastructure Plans.

Alongside carbon reduction, the strategy gives priority to tackling problems in Air Quality Management Areas (AQMAs) declared due to transport emissions. These are areas where monitoring has shown that air quality falls below thresholds.

The third strand of the strategy is that, when we take action to improve the transport network, we will seek to improve quality of place, conserving and enhancing our built and historic environments.

Approach to Implementation

Our approach to implementation will be to focus on achieving carbon reductions through a range of actions including delivery of the electric vehicle strategy, investment in active travel networks, rollout of digital connectivity to reduce travel, and working with partners to influence the location and nature of development. These actions are detailed elsewhere in the implementation plan.

Over and above this, we will introduce new requirements on our own schemes by initiating appropriate and proportionate whole life carbon assessments including construction and use of the asset. This will be done at the appropriate point for the project, usually at the point where planning consent is being sought, or it is required in business cases to attract funding. We will examine how we can incorporate a light-touch assessment into the development of projects on our pipeline at an earlier stage in order to help inform choices. We will also develop assessment criteria for schemes on our project pipeline so that we consider the impact of schemes across the range of LTP4 objectives, including carbon and the historic environment. This will be at a relevant stage in the process so as to inform options. We will work with regional partners on carbon reduction projects and toolkits. We expect the Department for Transport to issue guidance on local transport plans for consultation during 2022, prior to formal adoption by government. We will consider the implications of this following its publication and take appropriate and necessary action as required. A series of workstreams has been put in place to deliver net zero carbon on our own estate.

These actions will lead to carbon reduction, supporting the objectives and targets in the LTP, and the county council's environment policy target to achieve net zero on our own estate by 2030.

Our approach to tackling air quality includes delivering the Transport for Norwich Strategy. This sets out that we will investigate the introduction of potentially far-reaching measures such as a Clean Air Zone, workplace parking place levy, road charging / congestion charge, or vehicle bans (eg prohibiting petrol and diesel engine vehicles from the city centre). We have developed transport strategies and market town network improvement strategies for other areas, and we will look to channel implementation through active travel and other sustainable transport options. We will review or refresh these strategies in the light of the new policy direction for LTP4. We will seek to upscale our work with district councils on air quality action plans. We will consider more than simply traffic management changes and look to promote a range of measures to reduce travel and achieve a shift to sustainable travel. These will include consideration of restrictions, behaviour change campaigns and network changes. We will seek funding to deliver and implement programmes of work.

This will lead to improvements to air quality. Poor air quality is a major determinant on people's health outcomes. Our delivery will also therefore achieve wider outcomes for health. Although a separate issue from carbon reduction, our approach to delivery will also lead to carbon reduction, helping to achieve the carbon targets we have adopted.

Norwich has been chosen as one of only three cities to receive £500,000 Zero Emission Transport City (ZETC) development funding from the government. This will see Norfolk County Council work with government and local businesses to look at what measures a city needs to take to move to zero emissions. The success of this funding shows Norfolk's commitment to achieving local and national climate targets.

We will also develop our assessment criteria for schemes on the project pipeline and undertake proportionate assessments of schemes at the relevent stages in feasibility and design stages so that we can consider impact across LTP4 objectives. We will subject any new transport or improvement project which would be likely to have a significant effect on a Habitats Site either alone or in combination with other plans or projects to assessment under part 6 of the Habitats Regulations at the application stage.

This will lead to a range of better outcomes, supporting all of our objectives.

Our approach to implementation will therefore be to:

- Introduce relevant proportionate assessments into the feasibility, development and design process for schemes. Carbon assessments will be a key part of this, supporting us on our carbon targets
- Deliver the Transport for Norwich strategy, which includes feasibility work on a number of potentially far-reaching interventions to reduce traffic, reduce carbon and improve air quality
- Refresh the transport strategies in other urban areas. This will lead to an increased focus on delivering our outcomes for carbon, air quality and health
- Consider any requirements for additional work on publication of Local Transport Plan guidance from government, enabling us to further improve the prospects of achieving carbon reduction if considered to be required
- Work in partnership with districts, developers and other organizations for more effective, joined-up delivery.

Table of Actions

Policy 11 of the adopted LTP4 Strategy under Objective 4: Enhancing Norfolk's Quality of Life

When making changes and improvements to our transport network, and in working with users on how they choose to use the transport network, we will seek to understand the consequences of the decisions on meeting the collective challenge of protecting and improving our global environment to meet the environmental policy target of working towards carbon neutrality.

Implementation of the policy

Actions	Outcome/Benefit	Timescale	Funding
Undertake appropriate and proportionate whole life carbon assessments on proposed schemes including construction and use of the asset	These assessments will quantify carbon emissions from transport delivery projects. They will inform future scheme delivery This will contribute to achieving the LTP and NCC Environmental Targets for reduced carbon	Following publication of LTP Guidance on Local Transport Plans At the appropriate stage for schemes where this a requirement for funding or regulatory processes	NCC
Deliver net zero carbon on our own estate	NCC Environmental Targets for reduced carbon	Net zero by 2030	NCC

Actions	Outcome/Benefit	Timescale	Funding
Work with Transport East on the Decarbonisation analysis toolkit (being led by England's Economic Heartland)	Reduced carbon	2022/23	Transport East, England's Economic Heartland
Work with Transport East on alternative fuels (being led by Midlands Connect)	Reduced carbon	2022/23	Transport East, Midlands Connect
Develop our assessment criteria for schemes on the project pipeline to consider their impact across the range of LTP4 objectives	Developing our assessment criteria will shape the nature of projects, programmes and interventions the county council takes forward and ensure that they are the best ones to meet a range of objectives including decarbonisation and the historic environment	Following publication of LTP Guidance on Local Transport Plans	NCC
Consider implications of LTP guidance and take appropriate and necessary action on carbon as required in the guidance	LTP Guidance is anticipated to set out requirements for quantified carbon reduction, amongst other things. This will be used to guide achieving our carbon reduction work, contributing to achieving the LTP and NCC Environmental Targets for reduced carbon	Following publication of LTP Guidance on Local Transport Plans	NCC

Actions	Outcome/Benefit	Timescale	Funding
Consider implication of LTP guidance on future reviews of the LTP	As above. It is anticipated that this action will also help to achieve the broader range of LTP4 outcomes	Following publication of LTP Guidance on Local Transport Plans	NCC
Investigate working with Broads Authority and other partners on decarbonising waterways	Reduced carbon	2024	NCC, partners
Deliver a range of actions to reduce carbon. These include delivery of the EV strategy, investment in active travel networks, rollout of digital connectivity to reduce travel, and working with partners to influence the location and nature of development. These actions are detailed elsewhere in the implementation plan	These actions will support our objectives and targets for carbon reduction	Various, see elsewhere in the tables for details of the actions	Various, see elsewhere in the tables for details of the actions

Policy 12 of the adopted LTP4 Strategy under Objective 4: Enhancing Norfolk's Quality of Life

Our priority for tackling air quality will be to take action to improve air quality, including investigating vehicular restrictions or charging, where air quality falls below the threshold for Air Quality Management Areas. We will also embrace new ways of monitoring air quality to inform interventions, including in other areas, where this is deemed necessary.

Implementation of the policy

Actions	Outcome/Benefit	Timescale	Funding
Deliver Transport for Norwich (TfN) Strategy including development of feasibility work on a range of measures to reduce traffic. Examination of amongst other things Clean Air Zone, Workplace parking place levy, Road charging / congestion charge and vehicle bans (eg prohibiting petrol and diesel engine vehicles from the city centre)	Delivery will achieve the TfN Strategy objectives, which are closely aligned to those of LTP4 Strategy. They include: Reduced carbon; Better air quality; Improved health outcomes; Better connectivity	2022/23 onwards	NCC, DfT, LTP, districts, private investment
Review King's Lynn transport strategy	Reviews will embed LTP4 principles, objectives and outcomes This will lead to: Better air quality; Improved health outcomes; Reduced carbon	Following publication of LTP guidance (See first action under Policy 11)	NCC

Actions	Outcome/Benefit	Timescale	Funding
Review Great Yarmouth transport strategy	As above	As above	As above
Promote behaviour change work	See Policy 4	See Policy 4	See Policy 4
Work with bus operators and other transport providers to achieve a shift to clean fuels	Better air quality Improved health outcomes Reduced carbon	Ongoing	NCC, transport operators, DfT
Explore the use of low-cost air quality monitoring equipment, survey equipment	See Policy 1	See Policy 1	See Policy 1
Develop and implement LCWIPs	See Policy 2	See Policy 2	See Policy 2
Deliver our EV Strategy	See Policy 1	See Policy 1	See Policy 1
Support District councils in monitoring Air Quality Action Areas. Develop action plans for transport interventions where transport is a cause of poor air quality. These action plans will consider more than simply traffic management changes: we will look to promote a range of measures to reduce travel and achieve a shift to sustainable travel. These will include consideration of restrictions, behaviour change campaigns and network changes Seek funding to deliver and implement programmes of work	Galvanising work on air quality plans so they take a more holistic approach, starting with an emphasis on reducing travel, will ensure that we are better able to improve air quality, leading to improved health outcomes. Shifting travel, rather than simply moving to EVs will achieve quicker and more significant carbon reductions.	Ongoing	NCC, district councils, LTP

Policy 13 of the adopted LTP4 Strategy under Objective 4: Enhancing Norfolk's Quality of Life

We will seek to improve quality of place, conserving and enhancing our built and historic environments, when we take action to improve the transport network.

Implementation of the policy

Actions	Outcome/Benefit	Timescale	Funding
Undertake proportionate assessments of schemes to consider their impact across the range of LTP4 objectives Develop our assessment criteria for schemes on the project pipeline to consider their impact across the range of LTP4 objectives	Proportionate assessments will document and identify impacts and mitigation across a range of outcomes including carbon and the historic environment. Developing our assessment criteria: See Policy 11	Following publication of LTP Guidance on Local Transport Plans	NCC
Apply a Healthy Streets approach in Norfolk. This approach has been adopted for Norwich in the Transport for Norwich Strategy	Better health outcomes More liveable communities Better connectivity	Ongoing	NCC
Identify opportunities for linear habitat creation along the active travel network as part of an integrated approach between active travel and Greenways to Greenspaces	Environmental benefits including biodiversity and habitat creation	Ongoing	NCC, partner funding
Seek to meet the objective for biodiversity net gain through delivery of projects	Environmental benefits including biodiversity and habitat creation	Ongoing	NCC, partner funding

Objective 5: Increasing Accessibility

LTP4 Strategy Summary

The Local Transport Plan Strategy is clear that working in partnership is key to increasing accessibility. This includes working with providers of transport such as bus companies and train operators as well as with local communities, service providers and those who plan service provision. We will continue to make partnerships a core aspect of our work. Working in partnership means we get the expertise and specialism of others. Building relationships helps us to find out what the needs of residents, businesses and others are, and not what we think they are.

Approach to Implementation

The county council has submitted the BSIP to government to deliver our four key objectives of:

- Rebuilding and increasing passenger confidence
- Having a green and sustainable transport offer
- Developing a public transport network that is the first-choice mode for most journeys
- Having a simple and affordable ticketing and fares offer.

We have committed to developing an Enhanced Partnership as part of the BSIP. Sitting underneath the Enhanced Partnership Plan there is an Enhanced Partnership Scheme, which is a detailed list of commitments for the county council and the bus operators. These commitments will be reviewed when we know what funding we will receive from the government. This is yet to be confirmed, but government has indicated it to be circa £50m.

Delivery of the Bus Service Improvement Plan and Enhanced Partnership forms a major plank for achieving our Accessibility objective. The BSIP has twelve key outcomes including increased patronage, improved satisfaction, more punctual and reliable services, greener buses and increased accessibility (ie an increase in the range of bus services offered in rural areas).

Alongside the BSIP, our approach involves a series of initiatives including working with the Sub-national Transport Body Transport East as a rural mobility centre of excellence. We will explore opportunities to introduce trials of innovative solutions within the county to improve rural mobility.

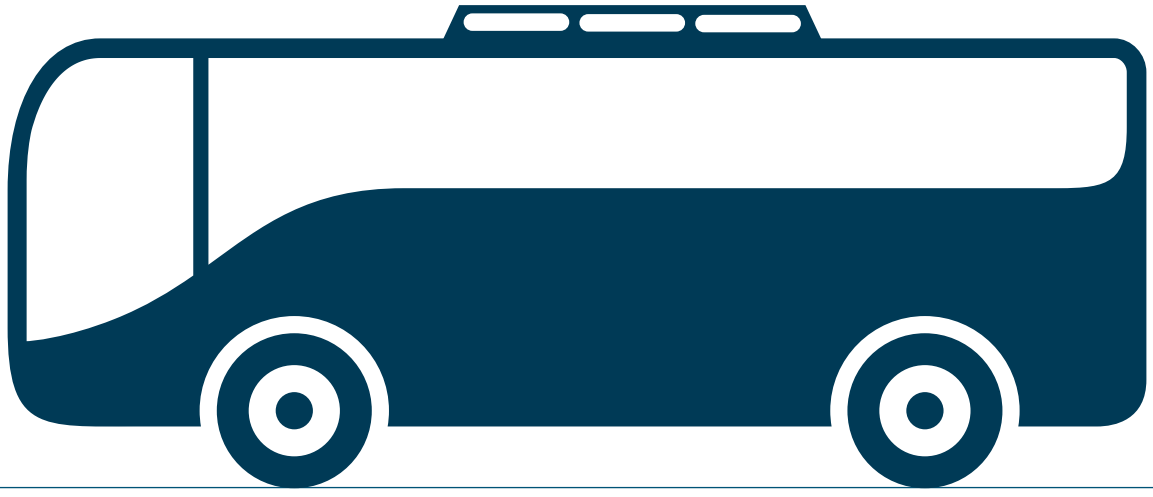
These initiatives will support increased accessibility by public transport – from buses through innovative trials, to mobility as a service offers – for people in rural areas. This will increase the ability for everyone to access essential services and facilities and provide an alternative to car travel. As well as improving people's life chances by opening up opportunities it will also therefore assist with other objectives including reducing carbon.

The work we plan on implementing our more detailed strategies (for example Transport for Norwich, the transport strategies in other urban areas and our Local Cycling and Walking Infrastructure Plans) will reallocate space for public transport or active travel, giving priority to and creating connected, joined-up networks for those modes carrying the most number of people in low carbon ways.

This will achieve our objectives by creating the transport networks needed for low carbon, active and clean accessibility.

We will work within the county council and with other partners to plan accessibility as part of service delivery. This means that we will consider how people will be able to access facilities and key services during the planning stages. This will ensure that people can get to places including healthcare and education by sustainable transport means. This will improve service delivery as well as improving people's life chances (as places can be easily reached). It will also lead to reduced travel and reduced carbon.

Underlying all of this will be a commitment to making sure, as far as we can, that the transport network is suitable for all users including people with disabilities or restricted mobility.



Summary of our preferred approach to implementation of the policies in the adopted Local Transport Plan Strategy

Our approach to implementation will be to:

- Improve accessibility across the county through a range of measures based on public transport and active travel. Doing this will improve people's access to services and facilities, especially in rural areas, by sustainable public transport based means. Increasing people's access to services will improve their outcomes
- Implement our Bus Service Improvement Plan, working in an enhanced partnership with bus operators. Doing this will achieve the outcomes listed in the BSIP. These include increased patronage, improved satisfaction, more punctual and reliable services, greener buses and increased accessibility (ie increase the range of services offered in rural areas)
- Develop and deliver Walking and Cycling Infrastructure Plans across the whole of the county. This will lead to an increase in active travel, improving people's health and leading to reduced carbon and improved air quality
- Engage with other local authorities, developers and others in the planning for new development to bring it forward in places that are within easy reach for people to get to. We will work with service providers in the planning and delivery stages to make sure services are accessible. This will improve service delivery as well as improving people's life chances (as places can be easily reached). It will also lead to reduced travel and reduced carbon
- Reprioritise space, especially within urban areas, and give priority to walking, cycling and public transport. This will achieve a mode shift to more sustainable travel and lead to outcomes including better air quality and reduced carbon
- Undertake proportionate assessments of proposals to make sure the transport system is suitable for all users including people with disabilities or restricted mobility. This will improve equality by providing a network where transport and movement can be accessed, understood and used to the greatest extent possible by all people.

Table of Actions

Policy 14 of the adopted LTP4 Strategy under Objective 5: Increasing Accessibility

We will work in partnership with agencies in Norfolk to tackle accessibility problems, targeting those communities most in need. We will seek to ensure that accessibility is planned as part of service delivery.

Implementation of the policy

Actions	Outcome/Benefit	Timescale	Funding
Deliver the Bus Service Improvement Plan (BSIP). The BSIP includes a range of interventions including more frequent and reliable services, integration of services with other forms of transport, improvements to fares and ticketing and improvements to the bus passenger experience including 100 zero emission buses from 2025, and more accessible and higher quality buses	The BSIP has twelve key outcomes including increased patronage, improved satisfaction, more punctual and reliable services, greener buses and increased accessibility (ie increase the range of services offered in rural areas)	Following government announcement on funding	Government, NCC, operators

Actions	Outcome/Benefit	Timescale	Funding
Make an Enhanced Partnership Plan and Enhanced Partnership Scheme	Better accessibility Reduced carbon	By 1 April 2022	Government, NCC, operators
Facilitate the commercial operation of the bus network through physical design including busways, bus priority and advising local planning authorities on appropriate estate design	This will allow bus services to better serve communities and populations, leading to: Better accessibility; Better connectivity; Reduced carbon	Ongoing	NCC, district councils, developers, bus operators
Support roll out of improved digital connectivity in rural areas.	Digital connectivity can support a reduction in travel as it enables people to work and shop at home. Outcomes include: Better accessibility; Reduced carbon	Ongoing	NCC, private investment
Represent the county council on the Board of Community Rail Norfolk	Community rail partnerships bring individual improvements to the rail offer leading to increased patronage and accessibility, targeting local needs. They also bring a sense of pride in place and involve local communities in action	Ongoing	NCC, Greater Anglia, local communities, other partners

Actions	Outcome/Benefit	Timescale	Funding
Work within the county council and with other partners to plan accessibility as part of service delivery	Considering how people will be able to access facilities and key services during the planning stages will ensure that people can get to places including healthcare and education by sustainable transport means. This will improve service delivery as well as improving people's life chances (as places can be easily reached). It will also lead to reduced travel and reduced carbon	Ongoing	NCC, private investment
Work with Transport East on Regional rural mobility centre of excellence Work with Transport East on Regional rural mobility case for investment (led by the Western Gateway)	Better accessibility Reduced carbon	2022/23	NCC, Transport East, Western Gateway
Explore opportunities to secure funding to develop and trial innovative rural mobility solutions	Trials will deliver solutions that improve connectivity and access to services at a local level. This will lead to outcomes including improving people's life-chances as they are able to participate in employment, education and training	2023	NCC, funding bids, local communities

Actions	Outcome/Benefit	Timescale	Funding
Work with partners to bring forward improved interchange facilities including at rail and bus stations, significant origins or destinations (such as employment centres) or other centres	Improved facilities will improve the passenger experience and encourage people to switch modes to more sustainable ones.	Ongoing	NCC, transport operators, funding bids, development
Investigate the delivery of 'Mobility as a Service' solutions. See Policy 3	See Policy 3	See Policy 3	See Policy 3

Policy 15 of the adopted LTP4 Strategy under Objective 5: Increasing Accessibility

We will identify routes important for sustainable and active transport and give priority – especially in urban areas – to sustainable and active modes of transport.

Implementation of the policy

Actions	Outcome/Benefit	Timescale	Funding
Prioritise space for certain types of user in urban areas, putting in dedicated, segregated lanes for public transport and / or cycling. We will do this when we implement transport strategies in urban areas and market towns (See Policy 12 and Policy 5)	Prioritising space will result in mode shift to more sustainable modes, leading to: Better air quality; Improved health outcomes; Reduced carbon	Ongoing	NCC, partners, bids, developers
Develop countywide Local Cycling and Walking Infrastructure Plans (LCWIPs)	LCWIPs identify walking and cycling networks within local areas, based on the journeys people are most likely, or need, to make. Delivery of the networks – prioritising them over other general traffic – will lead to an increase in active travel and a reduction in car use, in turn resulting in reduced carbon, better air quality, improved health outcomes and better connectivity	King's Lynn, Norwich and Great Yarmouth Spring 2022, Countywide Winter 2022	NCC, Active Travel Fund

Actions	Outcome/Benefit	Timescale	Funding
Consult on the draft Walking and Cycling Strategy	See Policy 10	See Policy 10	See Policy 10
Work with partners at an early stage of planning and development on accessibility to key regeneration, housing and employment sites	See Policy 5	See Policy 5	See Policy 5
Work with National Highways to improve local connections along and adjacent to trunk roads as set out in the NSIDP (more information in Chapter 3)	Reduced carbon Improved health outcomes Better connectivity	Ongoing	NCC, National Highways
Promote the use of mobility solutions such as electric bikes See also Policy 2 commitment to bikeshare scheme	Reduced carbon Improved health outcomes Better connectivity	Ongoing	NCC
Respond to the Norfolk Rural Economic Delivery Plan and support priorities, such as programmes to improve connectivity between coast and rural Norfolk, including market towns	Better connectivity	Norfolk Rural Economic Strategy endorsed in December 2021 and Norfolk Rural Economic Delivery Plan due to be approved 2022	NCC, awaiting Gov guidance on new funding streams

Policy 16 of the adopted LTP4 Strategy under Objective 5: Increasing Accessibility

We commit to providing a network where transport and movement can be accessed, understood and used to the greatest extent possible by all people. We recognise that people who live, work in and visit Norfolk access the network in different ways, depending on their individual circumstances and characteristics, and that what enables good access for one person may act as a barrier to another. We will therefore robustly assess all schemes and pay due regard to the Public Sector Equality Duty (along with our other duties and responsibilities), to identify potential barriers and determine how best to overcome any barriers and facilitate access to the greatest extent possible for all. Where appropriate, on a case-by-case basis, we will make reasonable adjustments.

Implementation of the policy

Actions	Outcome/Benefit	Timescale	Funding
Undertake proportionate assessments of proposals to make sure they are suitable for all users including people with disabilities or restricted mobility	Better accessibility for all	Ongoing	NCC
Continue to assess proposals for the use of digital technology to assess implications for people without access to technology	Better accessibility for all	Ongoing	NCC, other partners
Continue to support and review the Safe Sustainable Development in development management guidance, which gives due regard to equality as part of meeting the Equality Act 2010 and the Public Sector Equality Duty	See Policy 7	See Policy 7	See Policy 7

Objective 6: Improving Transport Safety

LTP4 Strategy Summary

The county council works in partnership to achieve casualty reductions on the transport network. The county council has adopted the Safe Systems Approach and works with others within the road safety partnership. Reducing the rate of casualties who are killed or seriously injured is the key priority.

Norfolk County Council is a proactive member of the Safety Camera Partnership, which is led by and accountable to Norfolk Constabulary. This partnership manages funds from court diversion courses which are reinvested into road safety initiatives across Norfolk. This includes payment for and the placement of speed cameras which are deployed where they have the best potential to reduce injury.

A range of other initiatives are delivered across various partnership groups to both reduce casualties and improve public health outcomes.

Approach to Implementation

Our approach to implementation will be to continue to work in these partnerships to drive down casualty rates, deliver education and undertake enforcement.

We will continue to look at a range of joined-up complementary measures affecting how the road network is used, how it is perceived and to reduce rates of killed or seriously injured casualties. This will not only improve road safety but reduce the impacts of the highway network on communities and remove any barriers that would otherwise prevent or deter people from using the network to access opportunities. The Safe Systems approach will be integrated alongside our behaviour change campaigns and Healthy Streets approach.

Within the county council, we will look at how new technology and innovation affects transport safety and how it can improve it. This might involve trialling digitally connected vehicles that can 'speak' to each other to avoid collisions whilst improving network performance, eg by being able to travel closer together than vehicles can safely manage currently. Alternatively, there might be opportunities to trial improved data collection to inform drivers about road conditions.

These measures will contribute to our target of reducing the rates of killed or seriously injured casualties on the roads. We will also consider creating 20mph speed limits outside schools where appropriate.

Summary of our preferred approach to implementation of the policies in the adopted Local Transport Plan Strategy

Our approach to implementation will therefore be to focus on reducing the rate of killed and seriously injured casualties through:

• Following the Safe Systems approach and working as part of the Road Safety Partnership. This will reduce the rate of killed or seriously injured casualties on the roads, helping us achieve our target

• Delivering a range of initiatives including safety schemes, speed management, encouraging alternative modes of transport, and the safest vehicles possible, and achieving compliance through initiatives that influence road user behaviour, with enforcement action taken where required. This will help achieve our objective to improve road safety. It will also improve people's quality of life by reducing the impacts of the highway network on communities. It will improve people's life chances by reducing or removing any barriers that would otherwise prevent or deter people from using the network to access opportunities.

Table of Actions

Policy 17 of the adopted LTP4 Strategy under Objective 6: Improving Transport Safety

Using the safe systems approach, the county council and road safety partners will work together to contribute to a reduction in the number of people killed and seriously injured on the road network.

Implementation of the policy

Actions	Outcome/Benefit	Timescale	Funding
Deliver road safety through the Safe Systems Approach by agreeing annual plans with interventions focusing on education and behaviour change with Road Safety Partnership	Reduced numbers of casualties More liveable communities This will help achieve LTP Transport Safety target to reduce the rate of killed and seriously injured casualties	Ongoing	NCC, Safety Camera partnership
Work in partnership with the Road Safety Partnership and Safety Camera Partnership to deliver the adopted Safe Systems approach. This is based on four pillars: safe roads; safe vehicles; safe road users, and safe speeds	Reduced numbers of casualties This will help achieve LTP Transport Safety target	Ongoing	NCC, Safety Camera partnership

Actions	Outcome/Benefit	Timescale	Funding
Refresh the county council's speed limit strategy including the aspiration to create 20mph speed limits outside schools where appropriate	Reduced numbers of casualties More liveable communities by reducing speeds, increasing, inter alia, perception of safety, reducing noise, encouraging on-street activity	2022	NCC
Monitor casualty numbers on the network with the priority being to reduce the number of people killed and seriously injured	Reduced numbers of casualties	Ongoing	NCC funding
Continue to support the road safety partnership priorities supported by the Road Safety Communities Team	Reduced numbers of casualties More liveable communities	Ongoing	NCC
Deliver a range of projects including driver development, driver education and enforcement	Reduced numbers of casualties	Ongoing	NCC

Actions	Outcome/Benefit	Timescale	Funding
Investigate the implementation of trials of technology and innovation to improve transport safety	Reduced numbers of casualties	2023	NCC
Roll out via the Road Safety team training programmes in schools for pedestrians and cyclists including Step on it, Crucial Crew and Bikeability	Behaviour change People will feel safer using sustainable transport	Ongoing	Public Health Grant

Objective 7: A Well Managed and Maintained Transport Network

LTP4 Strategy Summary

LTP4 strategy is to focus limited regular funding streams towards ensuring that the most important parts of the network are kept in good repair. We expect to be able to make significant improvements by successfully securing other funds, for which we have a good track record.

On corridors in market towns and urban areas that are important for sustainable and active transport, the strategy sets out that we will focus maintenance for users where it will have the most beneficial impact. For example this might mean focussing maintenance on cyclists and pedestrians for active travel routes identified in LCWIPs.

Our strategy is to manage the network in urban areas to improve conditions for public transport through the implementation of measures such as bus priority lanes, giving priority to buses at traffic signals and restrictions of general traffic. The network in urban areas will also be managed to favour active travel modes. Outside of urban areas, traffic generally flows freely and so specific priority measures for buses are often not needed. However, it is important that journeys are reliable, and our strategy is that this is targeted. Importantly, we need to ensure the networks are resilient given impacts of climate change and adopt processes that allow the council to identify and tackle areas identified as having the highest risk, on the parts of the network where disruption is considered to be of most consequence.

Approach to Implementation

Our approach to implementation is that we will target the regular, core funding towards keeping the most important parts of the network in good repair. There would be an increased rate of decline in condition unless we target the funding in this way, and our approach will be to maintain the existing asset rather than use this funding on new assets which we would find difficult to keep in good condition without prioritising the regular, core funding accordingly.

This makes it crucial that we maximise the amount of funding we are able to draw down from other sources, usually competitive bidding processes. We will look to exploit all funding opportunities to deliver the widest range of improvement and maintenance schemes, and other initiatives.

Doing this means that we are able to maintain the existing asset and keep it in good repair, especially where it is most used. This will help achieve our target for road maintenance, and the objective of a well maintained network. Maximising funding from other sources will also help us achieve this objective, and also the other LTP objectives.

By regularly reviewing the Transport Asset Management Plan and increasing our range of monitoring outcomes, we will be able to more effectively target funding to achieve our outcomes. Boosting our capability in areas of new technology and innovation means we can more effectively understand usage and condition of the network and other assets, and use this to inform decisions. Increasingly new technology is providing the tools for more informed decision-making at much less resource cost than previously; innovative new materials can perform better and provide more cost-effective solutions.

In urban areas and market towns in particular, we will include outcomes of prioritisation work for active travel and public transport, and from other initiatives such as LCWIPs, in reviews of the Transport Asset Management Plan. This will mean that resources for management of the network will have an increased focus towards those prioritised routes. A wider focus on the range of indicators and data considered to inform the plan will also enable a better understanding about the use and performance of active travel and public transport networks enabling more targeted direction of resources to supporting these modes. This will, in turn, lead to better outcomes including reduced carbon and improved air quality.

Our approach to innovation and technology to support management and maintenance of the networks will take the same approach as set out for Objective 1: we will develop our capabilities so that we are able to better use technology and explore trials of low-cost sensors that will provide an increase in the data available about performance of the network.

More effective ways of better understanding use, condition and performance of the network by exploiting innovation will enable us to plan more effectively. This will help us to achieve the objective of achieving a well-managed and maintained network.

Summary of our preferred approach to implementation of the policies in the adopted Local Transport Plan Strategy

Our approach to implementation will be to:

- Prioritise local transport grant funding towards maintenance of the most well-used parts of the network; to ensure A and urban / inter-urban routes are in good condition.
- Vigorously exploit all funding opportunities to deliver the widest range of schemes and other initiatives. We will seek to secure funding for innovative schemes such as trials of new technology. This will provide significantly more funding than through core grants and will enable the transport network to meet the needs of users
- Use better evidence gained through utilising technology to inform decisions This will help to achieve outcomes including to improve economic outcomes by ensuring these important routes fulfil their strategic role
- Develop our use of innovation drawing on key contracts with companies and businesses, develop our use of technology to monitor performance and develop our prototype system using vehicle movement data to provide an objective assessment of network performance. This will provide better data across an increased range of indicators to enable better understanding and the ability to target resources more effectively. This will help to achieve a broad range of outcomes and several of our targets
- Manage the networks in urban areas to provide dedicated and priority measures for active travel and public transport. This will lead to better conditions for active travel and public transport. In turn, this will lead to reduced carbon, improved air quality and better health outcomes
- Consider government's response to consultation on pavement parking with a view to taking appropriate action to implement and take on powers to enforce moving traffic offences. This will help improve conditions for pedestrians and encourage people to walk. Taking on enforcement of moving traffic offences will contribute to a reduction in casualties.

Table of Actions

Policy 18 of the adopted LTP4 Strategy under Objective 7: A Well Managed and Maintained Transport Network

Maintaining the current highway asset will be a key priority for funding. Works should be targeted to ensure A and urban / inter-urban routes are in good condition.

Implementation of the policy

Actions	Outcome/Benefit	Timescale	Funding
Vigorously exploit all funding opportunities to deliver the widest range of improvement and maintenance schemes, and other initiatives. Seek to secure funding for innovative schemes such as trials of new technology through exploiting opportunities	Securing funding from a range of sources provides significantly more funding than through core grants and enables the transport network to meet the needs of users	Ongoing	NCC staff time
Annually update the Transport Asset Management Plan	Updates will enable us to understand network performance better and to be able to direct resources to achieving key outcomes and objectives. It will enable more effective use of resources to better manage the network	Annually	NCC staff time

Actions	Outcome/Benefit	Timescale	Funding
We will annually monitor the Asset Management Strategy and its performance framework	This will enable us to target actions more effectively	Annually	NCC staff time
We will deliver the Norfolk Access Improvement Plan	Better accessibility for users of Norfolk's public rights of way network	Ongoing	NCC

Policy 19 of the adopted LTP4 Strategy under Objective 7: A Well Managed and Maintained Transport Network

We will identify corridors important for sustainable and active transport and focus maintenance on provision for these users where its impact would be most beneficial in market towns and urban areas.

Implementation of the policy

Actions	Outcome/Benefit	Timescale	Funding
Include outcomes of prioritisation for active travel and public transport (See Policy 15), and from other initiatives such as LCWIPs (See Policy 15), in reviews of the Transport Asset Management Plan	Review will embed LTP4 principles, objectives and outcomes This will lead to: Increased active travel; Better health outcomes; Better air quality; Reduced carbon	Annually, following adoption of relevant strategies or plans	NCC
Consider banning parking on pavements	Improved conditions for pedestrians and those with mobility issues	Following outcome of government Managing Pavement Parking consultation	NCC

Policy 20 of the adopted LTP4 Strategy under Objective 7: A Well Managed and Maintained Transport Network

In urban areas we will focus on measures to improve public transport corridors to make those journeys quicker and, in areas identified as having less congestion, we will aim to make all journeys more reliable.

Implementation of the policy

Actions	Outcome/Benefit	Timescale	Funding
Implement the Bus Service Improvement Plan (See policy 15) and priority measures in urban areas (policy 19)	Improved public transport Better air quality Reduced carbon	See Policy 15 and Policy 19	NCC
Monitor journey times and reliability to inform implementation	Improved reliability for journeys	Ongoing	NCC

Policy 21 of the adopted LTP4 Strategy under Objective 7: A Well Managed and Maintained Transport Network

The likely impacts of climate change on the highway network should be addressed to ensure assets are resilient. Where assets can't be made resilient to impacts of climate change, such as coastal erosion, we should have planned alternatives so we can respond faster and avoid disruption. We will use a risk-based approach to determine the priority for action.

Implementation of the policy

Actions	Outcome/Benefit	Timescale	Funding
Review the resilient network assessment (see Policy 1 action to identify vulnerability on the network)	Review will embed LTP4 principles, objectives and outcomes This will lead to: More resilient network; Better targeting of resources; More reliable journeys	2022 and then bi-annually or as necessary	NCC Staff
Maintain an up to date Norfolk Local Flood Risk Management Strategy to manage risk of flooding due to climate change	More resilient network Better targeting of resources More reliable journeys	Ongoing	NCC

Policy 22 of the adopted LTP4 Strategy under Objective 7: A Well Managed and Maintained Transport Network

New and innovative technology to collect data about the network, inform decisions, assess where to target funding on the network and share information with the public will be embraced and used proactively.

Implementation of the policy

Actions	Outcome/Benefit	Timescale	Funding
Explore the use of connected vehicle and mobile phone data	Better understanding of network use Better targeting of resources	Ongoing	NCC, grant funding
Trial artificial intelligence cameras to better capture walking and cycling data	Better understanding of network use Better targeting of resources	Ongoing	NCC, grant funding
Exploit key contracts with companies such as Microsoft to trial use of artificial intelligence technology to improve decision making	Better understanding of network use Better targeting of resources	Ongoing	NCC, grant funding
Implement and evolve the prototype for network management data using vehicle movement data	Objective assessment of our network performance Better targeting of resources	Ongoing	NCC, grant funding
Trial sensor technology to collect information about air quality, network use, and road and weather conditions (Also see Policy 3)	Better outcomes informed by better data Increased ability to monitor	Ongoing	NCC, grant funding
Work with Transport East on the future of freight strategy	Better understanding of network use Better targeting of resources	2022/23	Transport East

Chapter 3: Major and Significant Transport Schemes

Summary

This section summarises current progress on the major and significant transport schemes currently being taken forward by the county council and other agencies, and those in the pipeline of projects that we intend to develop towards delivery. The projects included are those shown in the Norfolk Strategic Infrastructure Delivery Plan (NSIDP).

This is a shared plan that contains Norfolk's high-level strategic infrastructure priorities for the next ten years, pulling together information on key projects needed to support planned development and deliver economic growth in Norfolk. It is reviewed and updated annually as projects are progressed through to delivery and new schemes come forward. Annual updates of NSIDP will reflect progress with delivery of the projects in this Implementation Plan, and any projects subsequently arising. The NSIDP is focused on strategic transport, utility, and sustainability projects; there are other infrastructure schemes and projects important across the county but not included in this strategic plan. The NSIDP is refreshed annually. For the next annual update, due at the end of 2022, we will be looking that the plan represents a broader range of projects to reflect more accurately the range being undertaken, showing how the council is working on a variety of decarbonisation projects, and other transport projects focused on active travel, public transport and decarbonisation.

Projects are placed in one of two groups: those grouped in local authority control and those to be delivered by external organisations. Schemes on trunk roads and railways are not in the control of the county council and will be brought forward and delivered by other agencies. They will therefore come forward outside of the local transport plan and be supported within other relevant plans and programmes. The county council will work in partnership with other relevant agencies and bodies to secure the necessary funding for scheme development and delivery of the schemes within its control. Details are in the NSIDP, but most projects require input from a range of partners and funding from various sources including the county council.

The remainder of this chapter provides a summary of current progress.

Projects included within current government funding: Large Local Major Schemes and schemes on the Major Road Network

Government is supporting a programme of road schemes where delivery will start before April 2025. Norfolk has four schemes within the programme, which were supported by Transport East in July 2019 and subsequently accepted by government into the programme. They are at various stages of development, but all will require approval of funding by government and will also need to secure any necessary consents before delivery.

In January 2022, government wrote to all sub-national transport bodies and local authorities with projects in the programme advising that "the Spending Review has challenged Ministers to make choices and to focus on key departmental priorities. As a result, it is likely that we will not have sufficient funding to continue to fund all the schemes currently in the programme to the current scale or timing."

The letter asked sub-national transport bodies and local authorities to reconsider schemes to take account of whether they remained a priority, whether schemes still fitted objectives and whether they could be delivered in line with the cost and programme delivery criteria. At the time of writing the county council is considering the issues raised and liaising with Transport East, the sub-national transport body for the area, in order to respond. It is relevant to note that the letter did not ask for reconsideration of projects that had secured approval at outline business case stage, which applies to the Long Stratton Bypass.

Large Local Major Schemes

Norwich Western Link

The Norwich Western Link would provide a higher standard dual carriageway route between the western end of A1270 Broadland Northway and the A47, linking with the proposed A47 dualling scheme. It will support planned growth set out in the adopted plan and significantly improve travel between major roads. Traffic congestion, rat-running and delays to journeys are all significant issues on minor roads to the west of Norwich. The high-level objectives for the project are to: Support sustainable economic growth; Improve the quality of life for local communities; Promote an improved environment; and Improve strategic connectivity with the national road network.

The project has been developed to enable active travel and uptake of public transport within the west of the greater Norwich area. Proposed measures, to be delivered as part of the scheme, encourage mode shift away from the private car by providing the means to travel sustainably by bike, on foot or by bus, as well as linking up the existing Public Rights of Way network. It will do this by the introduction of new and improved public right of way links whilst discussions are underway with bus operators regarding potential new bus services. This work is detailed in the project's Sustainable Transport Strategy.

In parallel, the Transport for Norwich Strategy has been reviewed, and was adopted in 2021, which sets out ambitious and potentially far-reaching measures across Norwich, and its wider growth areas, for traffic reduction (potentially including vehicle restraint), active travel, public transport and public realm measures. Transforming Cities, focusing on public transport improvements is being delivered, a major investment to provide better connections through significant improvements to public transport and walking and cycling measures.

In December 2016, the county council agreed the Norwich Western Link scheme as one of three priority projects. In July 2019, the county council agreed a preferred route for the road and submitted the strategic outline business case to government. Government subsequently approved this, released funding for further development work, and the council submitted the outline business case in June 2021. A further business case will be resubmitted in 2022. A decision from government about progression to the next stage is awaited.

If this business case is approved, this would provide a funding commitment from government expected to cover 85% of the project costs. Throughout this year the county council will work to complete a consultation on the details of the project and submit the planning application.

Major Road Network Schemes

A10 West Winch Housing Access Road

Provision of a new housing access road scheme is planned for West Winch. This is required for the growth area which will see up to 4,000 new homes built. The West Winch Housing Access Road will also address existing traffic problems on the A10 by providing an alternative route around the village that conforms to Major Road Network standards.

The road is part of much wider integrated proposals for the area. The various partners, led by King's Lynn and West Norfolk Borough Council, are undertaking master planning across West Winch to ensure that sustainable transport connections, including active travel and public transport, are brought forward as the road and the development come forward.

The Borough Council and Norfolk County Council are working in partnership on this project with the county council leading on delivering the transport infrastructure and the borough council leading on the housing element.

A Strategic Outline Business Case was submitted to government in March 2021, showing a scheme cost of £58.1m. If we get a positive response it means that they support the West Winch Housing Access Road project in principle and will provide financial assistance to develop the Outline Business Case which we plan to submit later in 2022.

A140 Long Stratton Bypass

Norfolk County Council is currently working in collaboration with South Norfolk District Council, Norfolk Homes Ltd and Norfolk Land Ltd to develop proposals to deliver a long-awaited bypass of Long Stratton on the eastern side of the town, which will cut congestion and support the local economy. This work is in the context of wider planning for the area including an area action plan, and neighbourhood plan. This wider work will ensure that other objectives, around town centre environment and active travel and public transport links are achieved.

The outline business case was approved by government in July 2021. This estimates the current overall cost of delivery at £37.44m. The project would be mainly externally funded with 70% from the Major Road Network Fund and 30% from local contributions made up primarily of developer contributions and Community Infrastructure Levy (CIL) contributions.

Revised planning applications from the developers have now been submitted to South Norfolk District Council.

The target date for work to start on construction is mid-2023, with the road open to traffic before the end of 2024 subject to planning approval, procurement and completion of other necessary statutory approval processes.

A17/A47 Pullover Junction, King's Lynn

The A17/A47 Pullover Junction improvement is required to reduce congestion and delay in the King's Lynn area and to support the planned growth set out in the adopted Local Plan. The county council is currently working with National Highways on developing proposals. A pre-strategic outline business case has been completed and work is starting on a strategic outline business case. This work will identify a preferred option and – on completion – be submitted to government for approval. At present, dependent on identification of a suitable scheme and satisfactory progression to secure funding and necessary consents delivery could start before April 2025.

Schemes on national networks

Trunk roads

The NSIDP contains the following projects on trunk roads. These projects are additional to those included within the national Roads Investment Strategy for a start prior to 2025 (for Norfolk, these are Great Yarmouth Junctions, A47 Blofield to Burlingham dualling, A47/A11 Thickthorn Junction and A47 North Tuddenham to Easton dualling):

- A11 Thetford Bypass Junctions: Evidence has shown that even without the proposed growth at Thetford, the junctions on the A11 are forecast to operate over their theoretical capacity by 2026. National Highways is leading on work to consider potential options, working in partnership with the local authorities
- A47 Wisbech Bypass Junctions: Improvements to the Broadend Road junction and minor improvements to the existing Elm High Road / A47 roundabout will be brought forward with the Growth Deal Funding from the Cambridgeshire Peterborough Combined Authority
- A47 Tilney to East Winch Dualling and A47 Acle Straight Dualling: These two schemes are not included in current trunk road improvement programmes but have been identified by the A47 Alliance, which the county council chairs, as two of its priorities for a future programme.

Railways

The NSIDP contains the following projects on the rail network:

- Norwich to London Rail (Norwich in 90): Subject to government funding approval a Strategic Outline Business Case will be completed on a package to deliver performance and journey time benefits. This includes timetable performance work for the line and also looking at the benefits of Bow Junction and Trowse, Norwich.
- Great Yarmouth Rail Station: Although not included in a funded programme, a significant improvement is required at Great Yarmouth rail station to improve the arrival experience at this key public transport gateway to the town
- Ely Area Enhancements: A large number of rail services pass through Ely. A package of improvements has been identified and an Outline Business Case is being prepared for submission to government
- East West Rail (Cambridge to Oxford): The complete East West Rail scheme comprises a strategic rail route that will link Ipswich and Norwich to Cambridge, Bedford, Milton Keynes, Bicester, and Oxford. Government has set up a Special Delivery Vehicle for the project and this is currently taking forward design and development work on a new line from Cambridge to Bedford. Delivery of this could be completed in the mid-2020s.

Schemes within local authority control

The transport projects within local authority control are listed below. The NSIDP includes details of the current stage of development and the required next steps. In most cases, funding will be required to enable these to progress; this funding coming from the local authorities themselves potentially supplemented by funding from other sources:

- Broadland Growth Triangle Link Road: A road linking the strategic employment areas of Broadland Business Park and Norwich Airport through the development sites within the northern suburbs of Norwich. It will significantly increase the accessibility of employment sites in the Broadland Growth Triangle area and support the development of approximately 55 hectares of employment land in this vicinity
- Attleborough Link Road: A link road between the B1077 near Bunns Bank to London Road to the south of the town. It is required for planned strategic growth (4,000 dwellings) in Attleborough. It will distribute new and existing traffic away from the town centre
- A148 Fakenham Roundabout Enhancement: Required to support the delivery of one of North Norfolk's largest Local Plan allocations of 950 dwellings
- Broadland Business Park Rail Station: A new station adjacent to Broadland Business Park, a strategic employment site located adjacent to the Norwich to Sheringham rail line just east of Norwich
- Weavers Way: New walking and cycling infrastructure in rural Norfolk. Weaver's Way links Cromer, Aylsham, Stalham. and Great Yarmouth. This project will focus principally on revitalising the disused railway line between Aylsham and Stalham
- The Green Loop: A 46-mile circular route for walking / cycling and disabled use. Encompassing the Marriott's Way, Bure Valley Path and Broadland Way. It will also connect to the Three Rivers Way Cycle route and to Weaver's Way.

Up-and-coming projects in local authority control

The NSIDP contains a list of up-and-coming projects, to assist in the creation of a pipeline of schemes. These projects fit the NSIDP criteria but are at an early stage of development. Details of the current stage of development and the required next steps are in the NSIDP. In most cases, funding will be required to enable these to progress; this funding coming from the local authorities themselves potentially supplemented by funding from other sources:

- North Walsham Link Road: A new road required to open up development identified in the review of the North Norfolk Local Plan, which was consulted on early 2022 and is due to be adopted in Winter 2022/early 2023. North Walsham link road unlocks growth on the land to the west of North Walsham to provide a mixed-use sustainable urban extension amounting to 108 hectares, which is allocated for approximately 1,800 dwellings, 7 hectares of employment land, green infrastructure and community facilities.
- Thetford A134 to A11 connection: Although this project was included in the 2021 NSIDP, further work is now focusing on working with National Highways in respect of mitigating the impacts of growth in the town on the A11, and improvements within the town itself. The form and nature of these are not yet known, with work planned during 2022
- Longwater additional access: A potential new link from Queens Hills onto the A1074 Dereham Road in Norwich
- Transport Infrastructure to support Norwich East: New infrastructure across a range of modes to facilitate an exciting regeneration opportunity in east Norwich
- A149 King's Lynn Bypass: Work will look at how congestion and delay on the A149 could be overcome including by moving trips across the town and along the bypass to active travel or public transport modes, or reducing trips altogether, to achieve wider outcomes around decarbonisation
- A10 Setchey (south of West Winch): Investigation of issues on the A10 south of the proposed West Winch Housing Access Road
- A140 north of Long Stratton: Investigation of issues on the A140 north of the proposed Long Stratton Bypass
- Great Yarmouth Town Centre Improvements: A range of measures aimed at regeneration of the town
- Active Travel in Breckland: Active travel measures to link towns, employment sites and services.

Up-and-coming projects not in local authority control

- Trowse Rail Bridge: The single-track bridge on the approach to Norwich Station has been identified as a pinch-point restricting service frequencies and timetabling, and being a cause of unreliability to current services. Work on development of an improvement is being closely linked to the work ongoing to regenerate East Norwich.

Chapter 4: Funding and Delivery Structures

Introduction

This Chapter summarises funding, showing typical sources used to develop and deliver projects and programmes. It also sets out the risks to delivery of the future works programmes and actions identified in this Implementation Plan.

Much of our delivery relies on working in partnership, with most projects and programmes being developed and delivered with others, utilising a number of different sources of funding. We will look to continue to work in partnership and to draw in funds from a range of areas to support the work.

The Chapter also includes a section summarising the relationship of the local transport plan with other strategies, policy documents and guidance produced by the county council, and a summary of how we work in partnership from inception to delivery of projects. More detail on partnerships is shown in Appendix 1, and funding in Appendix 2.

Funding Sources

Delivery of the LTP Implementation Plan will be funded from a number of sources.

Core funding for local transport plan delivery is provided via a government grant with allocations for integrated transport (improvement schemes) and maintenance.

Government makes other funding available, often through competitive bidding processes. The council has been very successful at securing money through competitive bidding and would expect to maintain this record in the future. Currently, development and delivery of the major projects (Great Yarmouth Third River Crossing, Long Stratton Bypass, and Norwich Western Link) is being largely funded from the large local major road and major road network funding streams supported by local contributions. We would expect similar funding for West Winch Housing Access Road and A47 / A17 Pullover Junction, King's Lynn.

The Transforming Cities programme in Norwich has also received government support together with a substantial local contribution from the council and other partners including bus companies. Several of the initiatives currently being developed within King's Lynn and Great Yarmouth are to be funded from the Towns Fund. This is a government fund investing in towns as part of government's levelling-up agenda.

The October 2021 Spending Review announced that funding would be available to support the Zero Emissions Bus Regional Areas scheme (ZEBRA). This funding was available for local transport authorities to apply for to introduce zero-emission buses and the infrastructure needed to support them. NCC was successful in a funding bid and was awarded £3.2m from the ZEBRA scheme to provide 15 battery electric buses, which will be in operation in Norwich by March 2024. This funding has been matched by £3.6m of local investment from First Bus.

Although the council has secured significant additional funding through bids, they are developed at-risk to the authority with no guarantee of success.

Funding is also secured from developers. This funding is generally via Community Infrastructure Levy or S106 contributions. These are planning tools that can be used to provide infrastructure to support development and mitigate its impact.

The county council also puts its own money in to support transport. The council provides bus subsidies for supported routes and has recently allocated additional money into maintenance. We also put our own resources, including staff time, to initiatives and projects. We will continue to commit resources to delivery including the identification and assessment of schemes, projects and programmes to take them forward to a point where they can secure funding for delivery.

Further detail is provided in Appendix 2.

Core Funding: Capital funding from the Local Transport Plan maintenance and integrated transport blocks

Government provides a grant allocation for delivery of the local transport plan, broken down into allocations for Structural Maintenance and Integrated Transport. The six-year formula ended in 2020/21, at which time for Norfolk it was £23.043m and £4.141m respectively. A one-year settlement was allocated for 2021/22. Government announced funding amounts for the next three years, as shown below, in 2022.

Table: DfT Local Transport Plan Funding Settlement 2022 to 2025

Funding Source	Potholes	Highways Maintenance Block needs element	Highways Maintenance Block incentive element	Integrated Transport Block	**Total**
Amount	**£15,892,000**	**£15,892,000**	**£3,973,000**	**£4,173,000**	**£39,930,000**

In previous years, Norfolk County Council has allocated some of the integrated transport block to maintenance to ensure that the asset remains in good condition. In 2021/22, £1.3m was allocated to integrated transport, with the remainder of the allocation put towards structural maintenance.

In 2021/22 some £84m of 'other funding,' including the county council's own money, funding from developers and funding secured through successful bids was allocated to integrated transport.

The capital programme summary shown in the table below sets out how the local transport plan allocation is proposed to be allocated to different scheme types. The programme was agreed by the council in March 2022.

It should be noted that this programme shows secured funding only. Therefore, in future years, the 'other' funding, which includes funding received from successful bids or from developers, reduces or is zero. It is probable that the county council will be successful in securing additional funding and the figures for future years will be closer to those for this year. However, the future funding environment is tight, and we do not yet know which opportunities might present themselves.

Table: Capital Spending Summary 2022/23 to 2024/25

Scheme Type	LTP 22/23	Other 22/23	LTP 23/24	Other 23/24	LTP 24/25	Other 24/25
Major schemes	0	41,882	0	40,108	0	96,993
Bus infrastructure	20	5,273	20	3,118	20	0
Bus priority schemes	0	897	0	5,367	0	0
Public Transport Interchanges	145	2,962	145	0	145	0
Cycling schemes (County)	50	865	283	633	70	0
Walking schemes	640	240	365	300	365	300
Road crossings	0	75	0	0	0	0
Local road schemes	681	5,967	522	2,706	735	0
Traffic Management & Traffic Calming	115	5	0	0	0	0
Local Safety Schemes	326	0	317	0	317	0
Other Schemes, Future Fees & Carry Over Costs	0	840	0	840	0	0
Integrated transport	**1,977**	**59,007**	**1,652**	**53,072**	**1,652**	**97,293**
Structural/Routine/Bridge Maintenance	42,596		41,326		41,326	
Totals:	**44,573**	**59,007**	**42,978**	**53,072**	**42,978**	**97,293**

Notes

Figures in £000s

- LTP is the DfT grant allocation
- Other funding includes Section 106, Section 278, CIL, county council funding and major scheme / major road network scheme funding

For the purposes of the Implementation Plan, it has been assumed that funding levels remain at similar levels to 2021/22. In real terms, this means a reduction in spending power since inflation in the construction sector is currently around 15% per annum.

Delivery Risks

We have assessed risks to delivery of the Implementation Plan. The major risks considered are set out in summary below. We will compile and maintain a more detailed risk assessment for delivery of the plan following its adoption. In addition, the county council has established governance arrangements around individual schemes and projects, and comprehensive risk registers will be compiled and maintained for the individual schemes, projects and programmes as we deliver them.

Risk Description: Inadequate Staff Resources

Causes

- Lack of skilled and experienced staff across the industry
- Staff moving to external organisations or to other locations
- Inability to recruit, retain and employ staff due to funding pressures within the local authority

Consequences

- Outcomes not delivered or delayed
- Reputational issues for the authority
- Opportunities not being able to be followed up (eg no suitable staff resources to develop funding bids)

Risk Description: Cost pressures

Causes

- Construction inflation currently running at 15% across the industry
- Funding pressures within the local authority for scheme development and delivery

Consequences

- Outcomes not delivered or delayed
- Asset condition continues to deteriorate
- Reputational issues for the authority
- Opportunities not being able to be followed up (eg no resources to develop funding bids; or local authority unable to risk putting resources into a bid with no guarantee of success)

Risk Description: Lack of certainty around long-term funding

Causes

- Government is yet to announce longer-term settlement for LTP capital grant and is currently reviewing funding streams including for major schemes
- Local authority budgets remain under pressure

Consequences

- Outcomes not delivered or delayed
- Reputational issues for the authority
- Inability to plan with any certainty over the medium to long-term, affecting the ability to develop – in particular – larger projects or programmes to delivery (as such projects require large up-front investment from the local authority and there is no certainty they will ultimately receive funding for delivery)

Risk Description: Changes in priorities

Causes

- Political change can result in changes to priorities
- Levelling Up White Paper might lead to change in political structures within the county
- Partners' priorities can change, or others' agendas can be different from ours
- Local Transport Plan guidance expected from government

Consequences

- Outcomes not agreed
- Reputational issues for the authority or other partners
- Resources utilised on abortive projects

Risk Description: Recovery from covid

Causes

- Pandemic has radically affected people's lives and habits
- Timing of return (if at all) to pre-covid habits remains uncertain

Consequences

- Planning for the long-term is uncertain
- Funding opportunities might remain restricted with uncertain economic outlook, therefore outcomes not delivered or delayed.

Relationships with other strategies / policies and duties

The Norfolk Local Transport Plan describes the council's strategy and policy framework for transport and is used as a guide for investment priorities as well as being considered by other agencies when determining their planning or delivery decisions. There is a suite of transport policy and guidance documents that sit below it. These documents provide more detail about specific geographical areas (eg urban areas, market towns), different transport modes (Bus Service Improvement Plan) or how the council deals with specific issues (Safe Sustainable Development). In this Implementation Plan we have indicated that we propose to review a number of these so that they are brought up to date with LTP4 following adoption of the Implementation Plan.

A summary of the main documents can be seen in Appendix 1. These include the Electric Vehicle Strategy, Bus Service Improvement Plan and Safe Sustainable Development, which have been referenced in other chapters of this document.

Partnerships

Delivery is complex, with most projects and programmes being delivered in partnership with others, utilising several different sources of funding. Partnerships are key in strengthening delivery and reach of projects, as well as providing a more robust case for many funding bids. Norfolk County Council works in partnership with other local authorities and outside organisations to help deliver transport improvements within Norfolk or for the benefit of Norfolk residents. We will consider whether, in our partnerships, we can work with local and national companies to provide employment opportunities, or to develop people's skills, in the sector.

Looking ahead, delivery structures will need to continue to evolve to take account of the changing roles and decision-making responsibilities of local authorities and to reflect funding arrangements and availability. Norfolk County Council will continue to work hard to foster new and existing partnerships.

Norfolk County Council is an active member of numerous partnerships to support the delivery of key transport improvements. A more comprehensive list of key partnerships can be seen in Appendix 2.

Chapter 5: Targets

Introduction

We have adopted the targets shown in the table below for the Implementation Plan.

These targets are ambitious but achievable. As set out in Chapter 4, for the purposes of the Implementation Plan it has been assumed that funding levels remain at similar levels to 2021/22. Other uncertainties include that we are: emerging from restrictions put in place due to the pandemic, which have affected travel and the outlook still remains uncertain; awaiting the outcome of our Bus Service Improvement Plan submission to government and expect to be advised of funding later in spring 2022; and some funding streams are yet to be fully announced (eg levelling-up).

We will monitor progress for all targets against the trajectories shown for each year. If we are behind on the trajectory, we will need to develop and refine the measures being brought forward to stay on track to achieve the target. (It should be noted that the annual trajectories are a means of monitoring progress only against the targets shown in table below.) We intend to report progress on delivery more widely on an annual basis. Part of this will be to show progress in whether we are on course to achieving the targets.

Targets for LTP4

This section provides a short description of LTP4 targets shown in the table following.

1. Objective 1: Embracing the Future

Target: Public satisfaction with transport and highway services

This target measures overall satisfaction with transport and highway services. Data is obtained from The National Highways and Transport (NHT) network survey which is carried out each summer. For the 2020 survey, 3,300 Norfolk residents, chosen at random, were asked to rate a range of highway and transportation services.

Our target is to maintain current satisfaction levels. In 2021 these were 56%. Holding satisfaction at current levels is considered to be ambitious given the current resource pressures and bearing in mind that there are uncertainties around future funding levels. Norfolk has ranked top for two years in the ratings for this measure across the authorities participating.

2. Objective 2: Delivering a Sustainable Norfolk

Target: Percentage of new residential development with travel plans

The strategy is to work with partners on development proposals to ensure – as far as is practicable – that development is sited in places within easy reach of services and facilities, and that these local links can be made by active travel and public transport. We are examining a suitable target for this and are considering two potential targets:

- Percentage of new residential development with travel plans
- Mode share at residential developments with travel plans.

3. Objective 3: Enhancing Connectivity

Target: Journey reliability on the Primary and Main Distributor Network

Congestion levels have been derived from several million vehicle telematic records for each month between 7am and 7pm daily. Separate figures have been calculated for the local road network with the highest strategic function (primary and main distributor roads (typically, A roads excluding the A47 and A11)) and local access roads (linking larger villages, bus routes and HGV generators to the primary and main distributor network).

Over the past year we have been developing reliable statistics and have worked up provisional results subject to further validation once additional monthly datasets have been analysed.

Our target therefore is to improve journey reliability against the current levels. We will give further review to the target once the dataset is fully established.

4. Objective 4: Enhancing Norfolk's Quality of Life

Target: To achieve net zero carbon emissions from transport by 2050

Our target is to reduce carbon emissions from transport to net zero by 2050 in Norfolk in line with the projections of domestic transport emissions in government's decarbonising transport plan. This is a credible, deliverable pathway to net zero emissions by 2050, with large reductions achieved by 2040. Achieving these reductions in the county will be challenging as many current journeys are lengthy and therefore not easily made by active travel, and not easily served by the largely commercial public transport market. This is due to the historical spatial distribution of settlements and other services. We have included actions to try to ensure that new development is sited within easy reach of services so that we achieve a reduction in travel, and mode shift to active travel and public transport, alongside a more general shift to electric vehicles. Together, the actions we set out, and the national actions shown in the decarbonisation plan, including half of all journeys in towns and cities to be cycled or walked by 2030 and the end of sale of new petrol and diesel cars also by 2030, will reduce carbon. We consider this a challenging, realistic and practicable target. The target is not a limit to our ambition. We will seek to exceed it and bring forward carbon reductions more quickly if this proves possible given constraints such as levels of funding and other resource.

This target is using data on road transport ('tailpipe emissions') published by the Department for Business, Energy and Industrial Strategy. The trajectory shown to 2037 is in line with that shown in the net zero strategy upper end of range. The trajectories for the national reductions are underpinned by modelling undertaken for government and give a sound basis for our target, especially given that the roll-out of measures in Norfolk will be in line with that of the rest of the nation, as set out in government publications.

This target will support the county council's adopted environmental policy. This has the following target: "Striving to meet this collective global challenge [of protecting and improving our global environment], we will work with our neighbours within the region, specifically Suffolk County Council and the Broads Authority, to collectively achieve 'net zero' carbon emissions on our estates by 2030, but within our wider areas, work towards 'carbon neutrality' also by 2030."

5. Objective 5: Increasing Accessibility

Target: Grow annual bus patronage in Norfolk

The Bus Service Improvement Plan includes the target to grow annual bus patronage in Norfolk, returning to 2019/20 patronage levels by March 2023, then growing bus patronage in the County by 1% per annum between 2023 and 2027. The baseline for this outcome is 28.911 million journeys, leading to a future total of more than 30m journeys per year. The trajectory is subject to funding for the BSIP. This indicator, alongside implementation of our Bus Service Improvement Plan, will help to support government's Levelling up Mission 3: By 2030, local public transport connectivity across the country will be significantly closer to the standards of London, with improved services, simpler fares and integrated ticketing.

6. Objective 5: Increasing Accessibility

Target: Increase rural accessibility

The Bus Service Improvement Plan also includes a target to improve Norfolk's index of rural accessibility to 85% by 2027. The baseline for this outcome is 74.4%. The index measures a target level of service for each parish based on its population size (for example, a parish with 1,000-2,000 people should be able to expect a journey to health services, and a shopping service five days a week, a commuter journey at peak times and a Saturday service.

This indicator, alongside implementation of our Bus Service Improvement Plan, will also help to support government's Levelling up Mission 3: By 2030, local public transport connectivity across the country will be significantly closer to the standards of London, with improved services, simpler fares and integrated ticketing. The trajectory is subject to funding for the BSIP.

7. Objective 6: Improving Transport Safety

Target: Number of people killed or seriously injured in road traffic collisions:

The county council is part of the Road Safety Partnership. The partnership has not set a target for levels of reduction of casualties. As set out above, our priority, and therefore the target we propose to adopt, is to reduce the rate of killed and seriously injured casualties.

8. Objective 7: A Well Managed and Maintained Transport Network

Target: Percentage of principal roads where maintenance should be considered

Carriageways (roads) are by far the largest of the council's assets and account for an estimated 85% of the total highway asset value (ignoring land value). In the Implementation Plan we set out that our priority will be to prioritise the A road network. With current funding levels, we have seen a slight decline in condition. In the target, we have assumed that future funding levels will be similar to current levels. Given high trade inflation, our buying power will decrease over time. This is reflected in our target (which will need to be reviewed when future funding levels are announced).

Table: Summary of targets for LTP4

	Policy	Target	Baseline	2022	2023	2024	2025	2026	2027
1	Public satisfaction with transport and highway services	Maintain current satisfaction levels	2021: 56%	56%	56%	56%	56%	56%	56%
2	Developments with good access to sustainable travel with an active Travel Plan in place	94% by 2027	2022: 90%	90%	90%	92%	92%	94%	94%
3	Journey reliability on the Primary and Main Distributor Network (100% = consistent journeys)	To improve on current levels	2021: 58.6%	58.6%	58.6%	58.6%	58.6%	58.6%	58.6%
4	Carbon emissions from transport	To achieve net zero carbon emissions from transport by 2050	2019: 1,717.7 (00 ktCO2)	1657.32	1636.25	1616.58	1591.30	1522.48	1453.66
5	Grow annual bus patronage in Norfolk (Actual passenger numbers to be included in consultation draft)	1% per annum between 2023 and 2027	2022: 18.7m	18.7m	28.9m	29.2m	29.4m	29.7m	30m
6	Increase rural accessibility (Using Norfolk's index of rural accessibility)	85% by 2027	2022: 74.4%	74.4%	77%	79%	81%	83%	85%
7	Number of people killed or seriously injured in road traffic collisions	To reduce from current levels	Index of 100	100	100	100	100	100	100
8	% of principal roads where maintenance should be considered	Below 5.2% by 2027/28	2022: 4.30%	4.30%	4.48%	4.65%	4.82%	5.00%	5.17%

Note: The pathway to 2037 for the carbon reduction target is shown here

2028	2029	2030	2031	2032	2033	2034	2035	2036	2037
1345.52	1242.99	1125.01	1016.86	903.10	751.41	669.95	591.30	530.90	477.53

Appendices

1. Relationships with other Norfolk County Council strategies and policies

Relationships with other Norfolk County Council strategies and policies

The Local Transport Plan and Implementation Plan cover Norfolk County Council's overarching transport strategy, policies and projects in Norfolk. Several other documents are produced by Norfolk County Council which sit below the LTP and go into more specific detail based on area or transport mode for example. The main documents are provided below.

Norfolk Environmental Policy

This policy sits above the LTP and reflects the areas that the Council sees as key to protecting and maintaining the health of Norfolk's distinctive environment and its occupants. The Policy itself signposts to overarching activity that spans a range of environmental interactions that the Council is involved with, including those where it already has its own statutory environmental responsibilities.

The Norfolk Environmental Policy can be found here.

Norfolk Electric Vehicle Strategy

The Strategy includes several recommendations to help increase electric vehicles (EV) uptake in Norfolk. EVs currently make up 0.6% of the total vehicles on the road in Norfolk in 2020. This is projected to increase in Norfolk to 5% (26,000 vehicles) in 2025, before rapidly increasing to 27% (168,000) in 2030.

The Electric Vehicle Strategy can be found here.

Norfolk Bus Service Improvement Plan

This is a five-year plan which proposes an ambitious and highly deliverable programme of measures and schemes to deliver outcomes, identifying funding streams for each element of the programme and outlines the governance and processes that will be put in place to deliver these measures and schemes once the funding is available, based upon a county-wide Enhanced Partnership Plan and scheme.

The Bus Service Improvement Plan can be found here.

Local Cycling and Walking Infrastructure Plans

Current plans are being developed in Greater Norwich, King's Lynn, Great Yarmouth and Dereham. The Cycling and Walking Infrastructure Plans provide information about proposed cycling and walking networks and share a list of prioritised improvements which can be delivered over the short, medium and long term.

Local Cycling and Walking Infrastructure Plans can be found here.

Norfolk Rural Economic Strategy

The 2021-24 strategy was consulted on with a wide range of partners, and endorsed by Norfolk County Council's Cabinet in December 2021. The Strategy's priority themes are: New rural economy and market towns; World class environment and the green economy; Community resilience; Skills and rural innovation; Digitalisation and technology adoption; and Modern infrastructure. A Delivery Plan is being prepared and will consider new funding streams when they become available.

View the Norfolk Rural Economic Strategy online.

Parking Guidelines for new developments in Norfolk

This document is currently under review. Norfolk County Council produces parking guidelines for new developments in Norfolk. Districts and Borough Councils now have an obligation to adopt their own standards for inclusion within their Local Plans.

View the parking Guidelines for new developments in Norfolk online.

Safe, Sustainable Development

This document is currently under review. Safe, Sustainable Development contains aims and guidance notes intended to act as best practice and provide general guidance for use by local authorities, developers, designers, councillors, and the community on what is likely to be acceptable to the Local Highway Authority. The intention is to ensure good design is achieved, thereby improving the safety and quality of the places in which we live.

View the safe, Sustainable Development document online.

Transport Asset Management Plan

Highway authorities exercise their duties to maintain, operate and improve their highway assets (physical things such as roads and bridges). Norfolk County Council's Transport Asset Management Plan (TAMP) identifies the optimal allocation of resources for the management, operation, preservation and enhancement of the highway infrastructure to meet the needs of current and future users.
The TAMP contains the Highway Asset Management Strategy and its Performance Framework. This will be reviewed on sight of the proposed grants for Norfolk over the next 3-year period.

View the Transport Asset Management Plan online.

Norfolk Rail Prospectus

The document is currently under review. The Norfolk Rail Prospectus covers Norfolk County Councils ambition for the future of the rail network in and to Norfolk.

View the Rail Prospectus online.

Norfolk Access Improvement Plan (NAIP)

The NAIP sets out priorities for increasing public use and enjoyment of Norfolk's public rights of way network. Norfolk's countryside access network provides a free resource, providing recreation and health benefits and access to local services.

View the Norfolk Access Improvement Plan online.

Transport for Norwich

The document is currently under review. The transport strategy has been designed to help deliver the growth that will happen within the Norwich area and address problems, such as congestion. The strategy should ensure that Norwich develops as a sustainable urban community, with a transport system that meets its needs. The strategy promotes travel choice, recognising the need to maintain the economic health of the Norwich area.

View the transport for Norwich online.

King's Lynn Transport Strategy

Transport study work was carried out for King's Lynn including extensive data collection, traffic model building, option testing and appraisal. The Implementation Plan measures will address issues on the transport network such as congestion and accessibility and should also help to make King's Lynn more attractive to economic investment and assist existing and new businesses within the town. They also take account of the planned growth set out in the local plan to ensure the town can grow sustainably.

View the King's Lynn Transport Strategy online.

Great Yarmouth Transport Strategy

Transport study work was carried out for Great Yarmouth including extensive data collection, traffic model building, option testing and appraisal. The implementation of the transport strategy will take account of environmental policies and any implications of the current Coronavirus crisis.

View the Great Yarmouth Transport Strategy online.

Market Town Network Improvement Strategies

Market Town Network Improvement Strategies identified potential measures to help address existing transport network constraints and transport improvements to facilitate growth identified in Local Plans. Strategies were produced for Aylsham, Dereham, Diss, Downham Market, Fakenham, North Walsham, Swaffham, Thetford, Wroxham and Hoveton and Wymondham.

View the Market Town Network Improvement Strategies online.

2. Funding

Introduction

Norfolk County Council seeks and secures funding from wide variety of sources including:

- Capital funding from the Local Transport Plan maintenance and integrated transport blocks, a government funding stream
- Large local majors, a government funding stream
- Major road network, a government funding stream
- Developer funding: Community Infrastructure Levy and S106 contributions
- Government grants and bids including: Active Travel Fund; Growth Deal and its successor; Transforming Cities; Levelling Up Fund
- EU funding and its successor
- Delivery partners, such as Sustrans, Homes England
- Roads Investment Strategy (trunk roads)
- Rail Network Enhancement Pipeline
- City Deal (Greater Norwich)
- County council's own funding and similar local initiatives: Revenue Support Grant and initiatives such as Business Rates Pool; Enterprise Zone Fund
- Private investment.

This section provides a summary of sources of funding, where they are significant and currently known.

Revenue Funding

Norfolk County Council uses its own money for transport improvements and maintenance, with income coming from council tax, schools funding, government grants, business rates, grants from joint projects and other income.

The county council has recently put in £1m over four years from 2021/22 to the Road Safety Community Fund and £10m over four years, £2.5m per annum from 2021/22, to the Highways Maintenance Pothole Fund. More detail on these is included below.

Current annual spending on passenger transport across all services is £3.5m for public transport, £0.5m for community transport, £0.2m for the rural mobility fund, £44m for school transport, £6m for adult transport, £0.2m for information and publicity, £0.2m for bus stations, and £0.2m on the capital programme.

The county council also allocates its own money to project and scheme development, to fund the necessary technical work and staff time needed to bring projects forward to a point where they can secure external funding.

Major Road Network Programme

In December 2017, government consulted on proposals for the creation of a Major Road Network, which would form a middle tier of the country's busiest and most economically important local authority 'A' roads, sitting between the national Strategic Road Network and the rest of the local road network. In December 2018, government published the guidance Major Road Network and Large Local Majors Programmes: programme investment planning. In that year's budget, government announced the National Roads Fund would be £28.8 billion between 2020-2025, £3.5 billion of which is expected to be spent on local roads.

The objectives for the Major Road Network programme are:

- Reducing congestion
- Support economic growth and rebalancing
- Support housing delivery
- Supporting all road users
- Supporting the Strategic Road Network

Government invited Sub-national Transport Bodies to complete a Regional Evidence Base, which would identify priority schemes. Transport East submitted their REB in July 2019, which contained the following schemes in Norfolk. The REB was accepted by government and work has progressed to develop these schemes. This is outlined below. More information is shown in Chapter 3: Major and Significant Transport Schemes:

- West Winch Housing Access Road
- A47/A17 Pullover Junction, King's Lynn
- A140 Long Stratton Bypass.

Large Local Major (Road) Scheme Programme

In addition to the REB and advice on potential MRN schemes, government invited STBs to also provide advice on the Large Local Majors (LLM) pipeline. The eligibility rules for these schemes were that the lower threshold for consideration was £50m, and – as the programme is funded through the National Roads Fund – only road schemes were eligible.

In Norfolk, the Norwich Western Link has been included in this programme. More information is shown in Chapter 3.

Other Major Schemes

In the Major Road Network and Large Local Majors Programmes guidance, government stated that Large Public Transport schemes will be expected to be funded from other programmes such as the Transforming Cities Fund and through Devolution Deals.

Norfolk has successfully drawn down Transforming Cities funding for a package of sustainable transport measures within the Norwich area. In addition, the county council was also successful under the previous major o scheme programme of securing funding for the Great Yarmouth Third River Crossing, which is currently under construction. Again, more information on these projects is shown in Chapter 3 and below.

Transforming Cities Fund

Transforming Cities is a £2.5bn transport fund to support connectivity in some of England's largest cities, launched at the Autumn Budget 2017 and expanded in the 2018 Budget with funding running from 2018-19 to 2022-23.

In 2019/20 Norfolk County Council successfully secured £6.1m in Tranche 1 for six schemes. These schemes are now complete. In September 2020, the DfT awarded Norwich £32m capital funding from Tranche 2 to overhaul local transport links in Norwich, including a new bus interchange at Norfolk and Norwich University Hospital, improvements to cycle and pedestrian crossing facilities, and a junction redesign at Heartsease. The government funding has been matched by third party and local authority contributions of £18.8m and £7.9m respectively to make a total of £59.9m. This programme aims to complete delivery during the current 2022/23 financial year.

Active Travel

In May 2020 the government announced final funding allocations of the active travel fund to support local transport authorities develop cycling and walking facilities. Tranche 1 enabled the installation of temporary projects related to the COVID-19 pandemic, In June 2020, DfT confirmed Norfolk's phase 1 allocation as £295,500. Tranche 2 is for longer-term projects with Norfolk allocated approximately £1.5m in total (£300,000 of this was revenue).
An announcement about Tranche 3 is expected in spring 2022.

Shared Prosperity Fund

Shared Prosperity Fund is a new fund for levelling up the economy. The three-year fund, due to be launched in spring 2022, is worth £2.6bn. We anticipate applications to be due by June/July and projects to start in January 2023. To ensure that Norfolk punches above its weight and makes a genuine impact on 'building back better' after the pandemic, and to maximise our chances of drawing down other new funds, we have commissioned a Norfolk Investment Framework, a countywide set of investment priorities based on a new, robust, evidence base.

Levelling Up Fund and Community Renewal Fund

In 2021, government announced three investment programmes aiming to level up communities: Community Renewal Fund; Levelling Up Fund; and Community Ownership Fund. The £4.8 billion Levelling Up Fund was to invest in infrastructure that improves everyday life across the UK, including regenerating town centres and high streets, upgrading local transport, and investing in cultural and heritage assets.

The Levelling-Up Fund Technical Note March 2021 provided the opportunity for county councils to submit one transport bid. The first round of the Fund focused on smaller transport projects that make a genuine difference to local areas; town centre and high street regeneration; and support for maintaining and expanding the UK's world-leading portfolio of cultural and heritage assets. All funding was expected to be spent by 31 March 2024 with priority given to bids able to demonstrate investment or begin delivery on the ground in the 2021/22.

As the county council did not have projects that were suitably developed for such early delivery, it did not submit a bid for round 1 and instead started to scope what might be brought forward in future rounds. Although further detail on how future rounds was expected in 2021 to date this has not been forthcoming. The council will consider bidding following further announcements on the funds.

The previously announced Local Pinch Points Fund (£150 million for 2021/22 and 2022/23) was rolled into the Levelling Up Funding stream.

Roads Investment Fund

In 2014, government reformed the way that England's strategic (trunk) roads were funded. Five-year funding settlements were set out in Roads Investment Strategies. The first Roads Investment Strategy, RIS1, covered the period from 2015 to 2020 and included the following trunk road improvements in Norfolk:

- A47 North Tuddenham to Easton dualling
- A47 Blofield to North Burlingham dualling
- A47 Acle Straight (addressing safety concerns; measures implemented)
- A47 junction enhancements Great Yarmouth (schemes now confirmed as Harfreys Junction and Vauxhall Junction; measures at Acle New Road / rail station junction delivered)
- A47/A11 Thickthorn Junction.

RIS2 was announced in 2019 and committed £27.4 billion during Roads Period Two; 2020 to 2025. Delivery of the outstanding Norfolk schemes was confirmed for this period subject to the statutory processes.

Work has now begun on development of RIS3.

Rail Schemes

Network Rail is responsible for the maintenance and improvement of infrastructure, such as track, signalling and level crossings. Rail improvements are funded by the Network Rail Spending programme, allocated by government. The other bulk of funding for improvements, particularly for services (rather than new track or signals) comes from rail operators' franchise commitments, generally raised from fare payers. The county council will continue its engagement with the rail industry to secure investment for Norfolk's benefit in future programmes.

The county council has contributed to a number of projects including:

- East West Rail: Funding for Interim Strategic Outline Business Case from the East West Rail Partnership
- Local Authorities: We contributed to development of business cases for improvements to infrastructure at Ely and on the Norwich to London line
- Transforming Cities Fund: This has been used to improve walking, cycling and public transport links to Wymondham Rail Station.

Other potential funding sources include:

- Developer contributions
- Community Infrastructure Levies
- Locally retained, or supplementary, business rates
- Tax increment financing.

The rail industry is currently undergoing a period of great change, with the formation of the new public body Great British Railways, which is due to take over leadership in 2023, integrating the railways, owning the infrastructure, collecting fare revenue, running and planning the network and setting fares and timetables. We will review new strategies as they emerge and respond to any changes in priorities for funding or funding mechanisms.

Road Safety Community Fund

In September 2021, Norfolk County Council agreed to introduce this £1m fund, from our own resources, aimed to deliver 100 new road safety schemes in local communities over the next four years. The profile of funding is as follows:

- Year 1: **£0.150m**
- Year 2: **£0.350m**
- Year 3: **£0.250m**
- Year 4: **£0.250m**

Highways Maintenance Pothole Fund

In September 2021 Norfolk County Council agreed an additional £10m of county council funding for maintenance. It was agreed to allocate £2.5m in 2021-22, and each of the following three financial years. For 2021/22, the funding has been allocated to resurfacing works (£0.5m), surface dressing (£1.1m), resurfacing and drainage repair work (£0.4m), additional bridge maintenance repairs (£0.1m) and machine patching (smaller isolated resurfacing works to repair and prevent potholes) and other pothole repair work (£0.4m).

Pooled Business Rates

This scheme allows councils to pool business rate resources where it makes local economic sense to do so. Between 2013/14 and 2020/21 Norfolk County Council participated with other Norfolk local authorities in a Business Rate Pool. There was a higher risk and uncertainty attached to pooling because of the significant and widespread impact of the COVID-19 pandemic, and the lack of clarity at the time of budget-setting offered by Government in relation to the continuation of exceptional retail, hospitality and other reliefs provided in 2020/21. Due to this Norfolk Leaders agreed in January 2021 to withdraw from pooling in 2021/22, although the 2021/22 pool was distributed between the authorities on an agreed basis, differing from the previous mechanism for allocating money to projects.

Development of transport projects benefitted from the pooling of business rates, including funding for development of West Winch Housing Access Road and a series of market town network improvements strategies.

The opportunity for pooling is to be reviewed for 2022/23 although the continued delay around the outcomes of the Comprehensive Spending Review, Fair Funding Review, and 75% Business Rates Retention Scheme means that the council faces a very significant level of uncertainty about funding levels from 2022/23.

3. Monitoring and Review

Introduction

Monitoring is carried out to assess delivery of the local transport plan. Corporately Significant Vital Signs are reported to the council's Cabinet quarterly to provide an update on performance towards achieving strategic outcomes. Highway and transport network performance is also reported to Members enabling informed decisions on agreed performance targets and for taking any necessary action to manage changing circumstances.

As set out in Chapter 2, we will review and revise the network performance report, especially to increase the focus on public transport, walking & cycling, electric vehicles, and air quality. This will enable better informed decisions about future plans across a wider range of outcomes. We also monitor outcomes and indicators in the Asset Management Strategy Performance Framework which, again, is reported to Members. As well as these reports, a wide range of data is collected and analysed to inform decisions and achieve better outcomes. A key part of our proposals in this Implementation Plan is to continue to improve our intelligence through adopting and using technology and innovation to keep us better informed and deliver better outcomes.

Local Transport Plan 3 Targets

The targets set out in LTP3, and progress against them, is shown in the table overleaf. The table also records where changes have been made to the targets to reflect changes in areas of monitoring or performance against the targets set when the plan was adopted.

Monitoring of LTP3 Indicators and Targets

Indicator	Target for 2026 (unless stated)	Baseline	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17
Public satisfaction with transport and highway services	To maintain current satisfaction levels	58% (2010)	Trajectory: **58%** Actual: **55%**	Trajectory: **58%** Actual: **NA** [1]	Trajectory: **58%** Actual: **55%**	Trajectory: **58%** Actual: **56%**	Trajectory: **58%** Actual: **56%**	Trajectory: **58%** Actual: **54%**
% of principal roads where maintenance should be considered	4.2%	3.5% (2010/11)	Trajectory: **3.6%** Actual: **3.7%**	Trajectory: **3.7%** Actual: **2.95%**	Trajectory: **3.9%** Actual: **3.25%**	Trajectory: **4.2%** Actual: **3.4%**	Trajectory: **4.2%** Actual: **2.8%**	Trajectory: **4.2%** Actual: **2.8%**
% of the population in rural areas able to access a market town or key employment destination by public transport [2]	77%	77% (2010/ 2011)	Trajectory: **77%** Actual: **72.8%**	Trajectory: **77%** Actual: **73.7%**	Trajectory: **77%** Actual: **75.0%**	Trajectory: **77%** Actual: **75.5%**	Trajectory: **77%** Actual: **68.4%**	Trajectory: **77%** Actual: **68.4%**
Number of people killed or seriously injured (KSI) in road traffic collisions	33% reduction by 2020	494 (2004-8 average)	Trajectory: **416** (2011) Actual: **355**	Trajectory: **406** (2012) Actual: **353**	Trajectory: **397** (2013) Actual: **392**[17]	Trajectory: **387** (2014) Actual: **410**	**Trajectory: 378** (2015) **Actual: 370**	Trajectory: **364** (2016) Actual: **415**
Per capita carbon emissions from transport[4]	25% reduction on 2008 levels by 2020	2.44t CO2 per capita (2008)	Trajectory: **2.29t** (2011) Actual: **2.24t**	Trajectory: **2.24t** (2012) Actual: **2.21t**	Trajectory: **2.19t** (2013) Actual: **2.18t**	Trajectory: **2.14t** (2014) Actual: **2.04t**	Trajectory: **2.08t** (2015) Actual: **2.07t**	Trajectory: **2.03t** (2016) Actual: **2.12t**

Monitoring of LTP3 Indicators and Targets

Indicator	Target for 2026 (unless stated)	Baseline	2017/18	2018/19	2019/20	2020/21	2021/22
Public satisfaction with transport and highway services	To maintain current satisfaction levels	58% (2010)	Trajectory: **58%** Actual: **54%**	Trajectory: **58%** Actual: **52%**	Trajectory: **58%** Actual: **56%**	Trajectory: **58%** Actual: **56%**	Trajectory: **58%** Actual: **50%**
% of principal roads where maintenance should be considered	4.2%	3.5% (2010/11)	Trajectory: **4.2%** Actual: **2.5%**	Trajectory: **4.2%** Actual: **2.1%**	Trajectory: **4.2%** Actual: **2.6%**	Trajectory: **4.2%** Actual: **3.9%**	Trajectory: **4.2%** Actual: **4.3%**
% of the population in rural areas able to access a market town or key employment destination by public transport [2]	77%	77% (2010/ 2011)	Trajectory: **77%** Actual: **59.3%**	Trajectory: **77%** Actual: **67.3%**	Trajectory: **77%** Actual: **63.8%**	Trajectory: **77%** Actual: **73.48%** (July 2020)	Trajectory: **77%** Actual: **74.4%**
Number of people killed or seriously injured (KSI) in road traffic collisions	33% reduction by 2020	494 (2004-8 average)	Trajectory: **350** (2017) Actual: **418**	Trajectory: **366 (2018)** Actual:**458**	Trajectory: **322** (2019) Actual: **525**	Trajectory**: 308** (2020) Actual: **390**	Trajectory: **308**[3] (2021) Actual: **Not Currently Available**
Per capita carbon emissions from transport[4]	25% reduction on 2008 levels by 2020	2.44t CO2 per capita (2008)	Trajectory: **1.98t (2017)** Actual: **2.20t**	Trajectory: **1.93t** (2018) Actual**: 2.20t**	Trajectory: **1.88t** (2019) Actual: **2.08t**	Trajectory: **1.83t** (2020) Actual: **Not currently available**	Trajectory: **1.83t** (2021)[5] Actual: **Not Currently Available**

[1] Norfolk County Council did not participate in the National Highways & Transport Network Public Satisfaction Survey 2012, so results are unavailable

[2] This indicator has been amended to remove the Flexibus services from the calculation as it does not realistically provide a journey to work service. Therefore, the Baseline has been adjusted from 83% to 77% and the 2011/12 figure has been adjusted to 72.8% (from 80.4%). As of 2020, this indicator was changed to measure 'the percentage of parishes which meet their target level of service'. This data is recorded monthly and collected slightly later than other data sets, hence the month of July is recorded in this monitoring report.

[3] Trajectory rolled over from 2020 as this is the year the target goes up to.

[4] Per capita carbon emissions from transport: The data for this indicator is now published by the Department for Business, Energy, and Industrial Strategy, and was previously published by DECC. In their 2011 release DECC revised the 2005-2010 figures "so they were directly comparable" to the new 2011 figures. The LTP3 target is to achieve a 25% reduction on 2008 levels by 2020. Hence, the LTP trajectory values have been revised since the 2012 SEASA Monitoring Report so that its starting value is the same as the revised 2008 DECC value.
In November 2019 Norfolk County Council adopted its Environmental Policy which included a 2030 carbon neutrality target. This is a far more ambitious target than set for LTP3. A revised trajectory has not been shown in this monitoring report.

[5] Trajectory rolled over from 2020 as this is the year the target goes up to.

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