Local Transport Plan 4 Strategy 2021-2036



**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 draft plan contains a transport strategy that looks towards 2036. Our intention is to adopt this plan in April 2021. It will be accompanied by a separate Implementation Plan setting out in detail the short-term schemes, projects and measures that we will implement over a three-year period. The implementation plan will also show, albeit in less detail, the programme over the medium to longer-term. This implementation plan will be developed once we have agreed our strategy in spring 2021.

**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 the right locations. We are working closely to accelerate housing growth and provide the necessary transport infrastructure including the Long Stratton bypass and West Winch Housing Access Road. We have completed the Broadland Northway (Norwich Northern Distributor Road) and delivered programmes of sustainable transport improvements including in Great Yarmouth, Attleborough, Thetford and Norwich growth areas

Government has committed to A47 improvements including dualling schemes as Blofield to Burlingham and Easton to Tuddenham, as well as major junction upgrades in Norwich and Gt Yarmouth. Government has also accepted the strategic outline business case for the Norwich Western Link with construction programmed to start in 2023. Construction is due to start in late 2020 on the Great Yarmouth Third River Crossing.

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.

There are new buses on the county’s core bus route on the A47 “Excel” bus service. Our ambitious Transforming Cities bid, and Cycle City Ambition programme, should see 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 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 are updating the Local Transport Plan to respond to the challenges ahead. These include addressing air quality and carbon reduction. These remain key priorities. The council’s Environmental Policies have been adopted, setting out a move towards net-zero carbon by 2030. We also need to tackle the infrastructure deficit to ensure journeys on our major road, bus and rail connections are quick and reliable. Our priorities include the Norwich Western Link, A140 Long Stratton Bypass, A10 West Winch Housing Access Road, full dualling of the A47 and improvements to the major rail links to London and Cambridge. In our towns and urban areas we need to make sure that we have good transport connections; a challenge in particular because of the amount of planned growth. A good transport system will encourage investment into the county by developers to meet the future housing needs of a growing population, as well as providing jobs and other essential services. 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 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.

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 in lockdown for spring and early summer. At the time of publishing this draft of the LTP we remain in transition from lockdown but are still subject to restrictions around – amongst other things – physical-distancing and overseas travel. 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 practices; major employers looking to reduce office costs resulting in different uses for buildings or in how they are used by employees.

The lockdown 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. Bus and train travel reduced by even greater amounts. Traffic levels remain lower in our urban centres, by almost 10%, whilst bus and train travel remain significantly down on pre-pandemic levels. 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 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:

* Prepare the county for future changes and challenges to ensure the best for our society, environment and economy
* Prioritise a shift to more efficient vehicles, including lower carbon technology and cleaner fuels
* Be more innovative and embrace new technologies
* Look at behaviour change and interventions that can help to increase the use of sustainable transport
* Seek 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
* Secure developer contributions to help directly mitigate any adverse effects of new development on the transport network
* Seek to ensure that in air quality management areas development demonstrates its positive contribution to tackling the air quality problem
* 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, seeking quick, reliable journey times for longer-distance journeys where there is the highest need
* Endeavour to secure, design and implement improvements to the strategic connections them in a way that encourages clean transport modes
* Improve connectivity between rural areas and services in urban centres
* Take action to improve air quality in urban centres, including investigating vehicular restrictions or charging
* Change the network to move towards carbon neutrality by 2030
* Improve quality of place through improving the transport network
* 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
* Encourage accessibility for all, especially for disabled people
* Designed 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
* Prioritise maintenance of those parts of the network used by people walking and cycling in our built-up areas
* 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
* 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 better monitor and maintain our networks and provide information to users

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# 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 climate change. 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 in key partners 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 will be looking at the future of transport infrastructure in the following areas:

* 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.

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 net-zero carbon 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.

*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*

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 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 will be developed once we have agreed the final Local Transport Plan strategy, which we will do in spring 2021.

# Chapter 2: Background

*Total Population of Norfolk is 903,680 and projected to rise to 985,200 by 2036*

*2018 population data – Norfolk Insight*

## 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.

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.

*58.8% of people in Norfolk are aged 16-64*

*2018 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, over 6,000 miles, which provides some significant challenges in terms of travel and maintenance. Norfolk’s road network is also largely rural, restricting journey times, and leading to congestion on some corridors.

Rural Population in Norfolk

## Recent progress and achievements

The current Local Transport Plan was adopted in 2011. Since its adoption several schemes have been delivered, most notably the Broadland Northway (Norwich Northern Distributor Road (NNDR)), A11 dualling and Norwich to London in 90 minutes rail services. There has also been a commitment to improvements and funding for the Great Yarmouth Third River Crossing, A47 Great Yarmouth Junctions, Blofield to Burlingham dualling, Thickthorn Roundabout and Easton to Tuddenham dualling. We have also made significant improvements to walking and cycling.

## 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. Since its 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

## Strategic Objectives

|  |  |  |  |
| --- | --- | --- | --- |
| 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. 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. In the Local Transport Plan, we will take into account the sustainability of new developments to ensure these are 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 and also helping reduce our greenhouse gas |
| 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** In this plan we aim to improve the safety of our transport network in order to both reduce casualties and help residents feel safe on the network when using any mode of transport. Norfolk County Council aim 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 6,000 miles of Norfolk’s roads and 2,400 miles of Norfolk’s footpaths and other public rights of way. Through the use of innovative Technology to provide real-time information we are aiming to improve the management and maintenance of the network to keep Norfolk moving. |  |

## Strategic Policy Context

**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.

**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 layer 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 Services Act 2017**

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. Very recently the government has decided to consult on urgent legislation for trials of e-scooters.

The bus service act provided new powers and opportunities for local authorities on services.

**Transport Act 2000**

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

**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.

**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.

**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.

**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 out 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.

# Chapter 4: Embracing the Future

Introduction and chapter summaryThis 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 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 will increase traffic and put pressure on the highway 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 more 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, EV 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 on the brink of 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

We have set out policies to help guide the decisions we make on transport. While developing these policies we have also considered alternative policies we could focus on instead, and set out the reason these policies have not been chosen.

In the final Local Transport Plan we will not set out the alternative policies, or why they have not been included. In this draft LTP they are set out so that readers can understand which alternatives we have considered, and why we are proposing to choose the preferred policy for the final plan.

|  |  |
| --- | --- |
| **Proposed Policy 1** | **Alternative policies we have considered** |
| **We will plan and prepare the county for future changes and challenges to ensure the best for our society, environment and economy.** | **React to future changes and challenges as and when they occur.** |
| *What this means in practice:*   * *Future changes 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.*   *If we followed the alternative policy we have considered, it would mean that:*   * *Norfolk will fall behind the rest of the country and future challenges will be exacerbated by a delay in intervention.*   *Reason for chosen policy:*   * *We feel we should take a leading role in preparing for the future, and not be left behind the rest of the county.* * *We need to gather as much evidence and data as possible to identify future challenges and help us react faster to these changes, and therefore avoid the negative consequences.* | |
| **Proposed Policy 2** | **Alternative** |
| **The priority for reducing emissions should 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.** | **Leave it to the market to provide the infrastructure for low carbon vehicles.** |
| *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 frequent enough 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 tram and rail operation.*   *If we followed the alternative policy we have considered, it would mean that:*   * *Charging points may not be placed in the most useful places and not provided quickly enough to suit demand. Norfolk could risk falling behind the rest of the country in the uptake of electric vehicles. The charging infrastructure needs to be in place before people will see electric vehicles as a viable option.* * We should influence where infrastructure is placed and not rely on the market to lead us.   *Reason for chosen policy:*   * *NCC should work in partnership to support and deliver infrastructure, taking a leading role for the market to follow, without shouldering the full financial burden.* * *Developing an 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.* | |
| **Proposed Policy 3** | **Alternative** |
| **Innovation and new technologies will be embraced in order to respond to the new targets set by the recently adopted environmental policy.** | **Implement new technologies only when necessary and the technologies have been tried and tested in multiple other, similar locations.** |
| *What this means in practice:*   * *We should lead in trialling new technology suitable for Norfolk and not follow 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 for monitoring how people use the network, or to monitor air quality, or innovative solutions to encourage electric vehicles or e-scooters*   *If we followed the alternative policy we have considered, it would mean that:*   * *The use of new technology will be delayed if it is reliant on other places adopting them 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.*   *Reason for chosen policy:*   * *We should 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.* | |
| **Proposed Policy 4** | **Alternative** |
| **Behaviour change and interventions that can help to increase the use of sustainable transport will be implemented.** | **Implement infrastructure first instead of considering behaviour change interventions at an early stage to support growth.** |
| *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* * *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*   *If we followed the alternative policy we have considered, it would mean that:*   * *We will implement changes to the network without also working with communities on helping them overcome barriers to them using it*   *Reason for chosen policy:*   * *Public support is necessary for the success of sustainable transport interventions. 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.* * *Covid-19 has accelerated changes in behaviour. AtoBetter have recently undertaken a survey of households to see how travel has changed through the Covid-19 pandemic. This will 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 which 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.

Nationwide, population growth is expected to increase road traffic by 17-51%

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.

Between 2001 and 2015 Norwich city centre saw a 59% growth in population

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. 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.

## Challenges, changes and trends

***Demographics***

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 will increase the volume of traffic on the road and place increased pressure and demand on the transport network.

It is important that road traffic growth is steered in a sustainable direction in order to minimise the negative effect it could have on air quality, climate change, the environment, society and the economy. This can be done through embracing innovative new technologies and focusing on changing people’s travel behaviours to those which 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. This places increased pressure on the transport network and increases the risk of congestion and high levels of air pollution. However, people may not need to commute as far for work which could make cycling and walking a more feasible option, public transport is often well connected in urban areas where transport hubs and interchanges can be found.

More sustainable and less polluting modes of transport could, and should, become the preferred choices of movement for people in urban areas. We have seen an increase in use of such forms of transport 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 for example for example.

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 the elderly, as identified by Age UK, include:

* The lack of sufficient transport links between the elderly in rural locations and healthcare and other vital services
* Transport not being convenient or comfortable for the elderly
* Lack of encouragement for the elderly 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.

***Socio-Economic Behaviours***

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 definitely influencers 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. This is becoming a new, popular way of working and will have an impact on the future of transport. 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, the future could see a decline in the peak congestion times and ‘rush hour’ when people start and finish work because a growing number of people will be commuting at different times (similarly to the ‘gig’ economy) 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.

Looking at the current trends, the popularity of purchasing products online is growing, mostly due to its convenience. Until buying locally becomes the most convenient option, it is unlikely these trends will change. The county council will need to consider how to respond to these changes in the way that it manages and maintains the road networks.

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

As Norwich 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 a 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.

**Policy 1**

**We will plan and prepare the county for future changes and challenges to ensure the best for our society, environment and economy.**

***Climate Change***

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

Our climate is changing and will continue to change in the coming years. Climate projections for the East of England show:

**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

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.   
  
Policy Background

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. The transport sector is the fastest growing contributor to greenhouse gas emissions and accounts for **23% of global carbon dioxide emissions** in 2010. 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).

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 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 is developing its Electric Vehicle Strategy to encourage the uptake and ownership of EVs.

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:

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

🟋 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

As a result of these policies, action is required in order to meet the targets. **Technology, innovation and behaviour change** have the ability to bring about rapid change when used together.

## Technology

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 2040 ban on the sale of all petrol and diesel cars and vans will promote the uptake of EVs, which are already becoming popular. The UK government aims 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.

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 is developing its EV strategy and will need to consider whether there is a role for local authorities in providing charging points. This might be in rural areas where market penetration is low. The county council already works with developers and district councils the planning authorities, on provision in new developments.

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.

**Policy 2**

**The priority for reducing emissions should 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.**

The government is investing significantly into the research and development of Connected and Autonomous Vehicles (CAVs). CAVs are also known as self-driving or driverless cars which can sense their environment and move with little or no human impact. Since 2014, £120million has already been invested into CAV projects in the UK, with a further £68million coming from industry contributions. These developments 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.

CAVs are already being used in agriculture and mining industries and in the short term they are gradually being adopted in the wider transport network through driver assist functions and features. In the future, a growth in driver assist functions can be predicted and there is potential for CAVs to be integrated into our transport networks. This is an area the council needs to be aware of as it might affect how we need to manage and maintain the transport network in order to prepare transport infrastructure.

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.

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 CO2 emission levels, especially in urban areas.

In Spring 2020, Norwich launched its own bike sharing scheme called ‘Beryl Bikes’. This has 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.

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 A to Better journey planner. It is therefore likely that in years to come, multi-modal services will be increasingly used in our county.  
  
Behaviour Change

**Policy 3**

**Innovation and new technologies will be embraced in order to respond to the new targets set by the recently adopted environmental policy.**

It is becoming increasingly apparent that climate change and other environmental challenges are caused by unsustainable patterns of human activity. Transport is one of the biggest challenges and many people’s behaviour is deeply engrained. We need to make it easier for people to change their habits and make sustainable choices about how they choose to travel. Therefore, more than just infrastructure improvements and new technologies are needed to increase active modes of transport, meet future targets and to mitigate and adapt to climate change in the future.

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. Behaviour change initiatives should be used alongside transport provisions to 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 state 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 make their old behaviour seem less of any of the above.

Behaviour change has been successfully used by Public Health England to reduce tobacco usage and, in the future, it could be used more in our transport delivery to reduce impacts on our environment, society and economy.

**Policy 4**

**Behaviour change and interventions that can help to increase the use of sustainable transport will be implemented**

Covid-19 and the growing awareness of environmental issues have heightened society’s awareness of the need to tackle carbon emissions, air quality and accelerate behaviour change to use more sustainable transport and become more active. This is reflected in the fast pace that government policy is moving to tackle issues around transport and town planning. The way we work is changing, with Local Authorities becoming more collaborative, working with other organisations such as the Local Enterprise Partnership and emerging Sub-national Transport Bodies to bring about positive change. Organisations and the public are also working closer together to tackle climate change with an aim to reach carbon neutrality.

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 links good links to 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

We have set out policies to help guide the decisions we make on transport. While developing these policies we have also considered alternative policies we could focus on instead, and set out the reason these policies have not been chosen.

In the final Local Transport Plan we will not set out the alternative policies, or why they have not been included. In this draft LTP they are set out so that readers can understand which alternatives we have considered, and why we are proposing to choose the preferred policy for the final plan.

|  |  |
| --- | --- |
| **Proposed Policy 5** | **Alternative** |
| **New development should be well located and connected to maximise use of sustainable and active transport options, making them more attractive places to live, thus supporting a strong sense of the public realm.** | **New development should be spread evenly across settlements and transport considerations should be added on afterwards. Transport therefore will not a factor in where development should be.** |
| *What this means in practice:*   * New developments should be 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 we followed the alternative policy we have considered, it would mean that:*   * *People will be reliant on private cars or, if they don’t have a private car, struggle to access services via cheaper modes of transport, leading to social isolation and economic disadvantage.* * *Busses are run privately so it would be difficult to add or change bus routes after a development has been inhabited, and this could take a long time to introduce.*   *Reason for chosen policy:*   * *NCC do not have an unlimited budget to make transport interventions after a development. Allowing new developments where there are 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.* | |
| **Proposed Policy 6** | **Alternative** |
| **We will seek to ensure that any adverse effects of new development on the transport network are mitigated through developer contributions.** | **Contributions from development should be targeted at overcoming vehicular congestion.**  **Provision should be made for cycling and walking and public transport.**    **Contributions from development should be targeted towards alternatives to travel such as better broadband.** |
| *What this means in practice:*   * *Developer contributions could be used in more useful ways depending on the development location. This money is vital in making a development work for the local communities and should be based on conditions at each individual site to maximise impact. Section 278 developer contributions directly mitigate the impact of a development as defined by a planning consent.*   *If we followed the alternative policy we have considered, it would mean that:*   * By focusing these contributions on one transport type, or an alternative to transport we would not be responding to the needs of different members of that community. Some residents may not be able to access cycling and walking for health reasons, may not have access to a private car, or may not have the skills to rely on the internet for shopping and working. Therefore, focus should be on strengthening the network so it works for everyone.   *Reason for chosen policy:*   * *Developers are required to contribute to infrastructure to improve developments for the people who live there. Without these contributions development could adversely affect quality of life.* * *Development can put unnecessary strain on the network without interventions such as road improvements to access the development without disrupting through traffic* * *New developments should support aims to increase uptake of cycling and walking in communities. Without developer contributions cycleways to encourage active travel and reduce reliance on private cars may be delayed until funds can be found, or not built at all.* | |
| **Proposed Policy 7** | **Alternative** |
| **In air quality management areas development will need to demonstrate its positive contribution to tackling the air quality problem.** | **NCC will object to development in an air quality management area.** |
| *What this means in practice:*   * *Air quality management areas are areas that are likely to exceed the national air quality objective for a specific pollutant. 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.*   *If we followed the alternative policy we have considered, it would mean that:*   * *We would simply raise an objection to planning applications (on which we are consulted as highway authority) where they fell within an air quality management area.*   *Reason for chosen policy:*   * *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.* * *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).* * *If we chose the alternative policy, it might mean that development does not come forward in otherwise sustainable locations. Interventions for existing residents in AQMAs could be slower in coming forward due to priority or funding. If development did come forward, despite our objection, increases in motorised vehicles in AQMAs would increase the problem and adversely affect quality of life.* * *Rather than automatically refusing development in certain areas we will judge each development on how they propose to mitigate air quality issues. National Planning Policy Framework requirement is for a proposed development to mitigate the impacts on air quality only.* | |

## Achievements

🟋 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 have been identified in the Major Road Network programme for government funding.

🟋 Attleborough/Thetford Growth Deal, success in securing growth deal funding through the New Anglia Local Enterprise Partnership capital growth programme. This includes a package of measures to reduce traffic congestion, improve sustainable transport and asset management in order to sustain and bring forward economic growth in the town.

## Evidence

The Norfolk Strategic Infrastructure Delivery Plan sets out Norfolk’s priorities to help deliver significant economic growth in Norfolk for the next 10 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. Planning for the Future White Paper, August 2020, may affect the strategy for delivery in the future. However, this has just been released for consultation when writing this document so it is not yet clear what changes this could mean for Local Authorities. This will continue to be monitored and our strategy could be amended accordingly.

## 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 10 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 on the highway network as a result. Therefore, Norfolk will need to attract new businesses and industries to come to Norfolk and plan housing to be sustainable.
* Making sure road and rail capacity can cope with growth and that public transport options are available.

## Priorities for delivering a sustainable Norfolk

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 (3-5 years). By identifying sites, we can make sure consideration is given to the appropriate infrastructure that will be needed to deliver it sustainably.

New development must: take into account access to education and schools; the need to minimise the need to travel; support active travel; support travel planning through schemes such as AtoBetter; and enhance and protect the strategic network.

**Policy 5**

**New development should be well located and connected to maximise use of sustainable and active transport options, making them more attractive places to live, thus supporting a strong sense of the public realm.**

## 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 Principles

🟋 Supporting 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

## Delivering strong and sustainable economic growth

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

To support clean growth, we must look at sites that promote active travel with good links to 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.

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.

**Policy 6**

**We will seek to ensure that any adverse effects of new development on the transport network are mitigated through developer contributions.**

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 in new developments for electric vehicles. More detail on this is in our separate, more detailed development management and residential estate layout guides.

## 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.

**Policy 7**

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

# 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
* 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.

The chapter on accessibility deals with local connectivity and accessibility, such as making trips within built up areas by walking and cycling. The Quality of Life Chapter 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.

## LTP4 Policies

|  |  |
| --- | --- |
| **Proposed Policy 8** | **Alternative** |
| **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.** | **Encouraging clean growth around micro industries so rural connections are emphasised. Improving local connections to support low carbon industries.** |
| *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), 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)*   *If we followed the alternative policy we have considered, it would mean that:*   * *We encourage smaller-scale growth, which is likely to be located in rural areas* * *Rather than supporting quick, reliable transport links to the major employment locations (urban areas) and gateways we focussed on connections to connect to the low carbon business, many of which are likely to be located outside of the urban areas*   *Reason for chosen policy:*   * *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* * 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 suggest they still hold true * *In the Sustainability Chapter, we set out that ‘New development should be well located and connected to maximise use of sustainable and active transport options.’ Encouraging growth around micro-industries is likely to go against this policy and its rationale (see Chapter 5).* | |
| **Proposed Policy 9** | **Alternative** |
| **Our priority for improved connectivity will be for it to be via clean transport modes.** | **NCC will not focus on clean transport modes when assessing transport options** |
| *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.*   *If we followed the alternative policy we have considered, it would mean that:*   * *We did not seek improvements for clean transport modes, meaning that we would not be seeking to influence the choice of vehicle type or how people choose to travel; this would be left to individuals*   *Reason for chosen policy:*   * *The alternative not to focus on clean transport modes has been rejected as this would go against our environment policy and emerging government policy. The policy would not contribute to reducing carbon, improving air quality or the better physical and mental health of people through active travel* | |
| **Proposed Policy 10** | **Alternative** |
| **We will seek to improve connectivity between rural areas and services in urban centres.** | **Improve connectivity within rural areas.** |
| *What this means in practice:*   * *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. This ties in with our policies set out in Maintaining and Managing the Road Network where we state that we will prioritise main roads that have most usage.*   *If we followed the alternative policy we have considered, it would mean that:*   * *Resources would be targeted to improving connections in rural areas. This would result in improved connectivity within rural areas but would not necessarily help people to access the urban areas and market towns.*   *Reason for chosen policy:*   * *Residents in rural areas need to access employment and services, which are often based in urban areas.* * *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🟋 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. Government has accepted the strategic outline business case and awarded funding for the next stage of work. Construction is programmed for a start on site in 2023
  + Great Yarmouth Third River Crossing. Subject to gaining development consent, construction is due to start in late 2020 and 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 has accepted the strategic outline business case for Long Stratton Bypass and awarded funding for the next stage of work

🟋 Greater Anglia franchise has delivered:

* + New rolling stock on all routes
  + Start of Norwich in 90 services
  + Extension of Norwich-Cambridge service to Stansted

🟋 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.

## 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 in urban centres
* Many parts of Norfolk experience slow and unreliable road journeys for motorists and busses, 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.

Evidence🟋 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 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

🟋 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.

## 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 gatewaysTransport gateways are 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 clean air targets.

## Strategic Road and Rail Connections

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 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, we deal with how these bus links will connect into the centres of our towns and employment areas.

**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.**

**Priorities for enhancing connectivity in more detail**

* A11 (bottleneck junctions at Thetford and Mildenhall Fiveways)
* A47 trunk roads (dualling)
* Major Road Network (Long Stratton Bypass, West Winch Housing Access Road, A47/A17 Junction)
* Connections to Norfolk’s transport gateways (quick, reliable connections)
* Norwich to London rail line (more frequent 90-minute journeys)
* 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).

## Clean Transport Modes

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.

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. However, it needs to be improved 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.

**Policy 9**

**Our priority for improved connectivity will be for it to be via clean transport modes.**

## Connectivity from rural areas

Most services and facilities that people need to get to are sited in our market towns and rural 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.

*Strategic Priorities*

* 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, including a future Third River Crossing for the River Yare and the Norwich Western Link
* 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**
* **The King’s Lynn to London rail line**, providing links to London, the south and Europe via St Pancras / Thameslink
* **Major Road Network** including Long Stratton Bypass, West Winch Housing Access Road and an improved A47/A17 junction

**Policy 10**

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

## 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 pollution, 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 making fleet vehicles more environmentally friendly can make an impact.
* Innovation. Using new technology and innovative ideas to improve journey planning and environmental monitoring.

The chapter sets out that:

* Transport is the most polluting sector, so intervention is needed to reach environmental targets.
* Journey planning is making a positive impact to make journeys easier by foot, bike, and public transport.
* Priority to reducing emissions through public transport and active travel.
* The importance of work in partnership to improve quality of life.
* Consideration should be given to health issues in planning decisions to promote air quality
* Behaviour change is vital to encourage uptake of electric vehicles and reduce single occupancy car journeys. Covid-19 has already gone some way in bringing about behaviour change and encourage a change in the way we travel.
* A focus on cycling and walking benefits the environment, health, and quality of life.

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

We have set out policies to help guide the decisions we make on transport. While developing these policies we have also considered alternative policies we could focus on instead, and set out the reason these policies have not been chosen.

In the final Local Transport Plan we will not set out the alternative policies, or why they have not been included. In this draft LTP they are set out so that readers can understand which alternatives we have considered, and why we are proposing to choose the preferred policy for the final plan.

|  |  |
| --- | --- |
| **Proposed Policy 11** | **Alternative** |
| **Action will be taken to improve air quality in urban centres, including investigating vehicular restrictions or charging, in order for air quality to fall below the threshold for Air Quality Management Areas.** | **Improve local air quality and monitor outside schools, extending the reach beyond Air Quality Management Areas.**  **An alternative where NCC do not tackle air quality is not an option due to legislation and policy targets.** |
| *What this means in practice:*   * *Air quality is integral to health and wellbeing, providing communities in locations where people want to live in and spaces people want to visit. The recent Local Transport Plan consultation showed that there is support for restricting the most polluting vehicles such as HGVs from entering town and city centres.*   *If we followed the alternative policy we have considered, it would mean that:*   * *Urban centres will become places people don’t want to visit and will widen 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 largest problems.*   *Reason for chosen policy:*   * *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 take action outside schools specifically on 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 run’ 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.* | |
| **Proposed Policy 12** | **Alternative** |
| **We will change our transport network to work towards carbon neutrality by 2030.** | **An alternative where NCC do not tackle carbon neutrality is not an option due to environmental policy targets.** |
| *What this means in practice:*   * *The Norfolk County Council Environmental Policy, alongside national policies, means that we have a responsibility to meet these 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, sustainable, and active transport options.* * *People now have a greater understanding of environmental issues and expect us to take climate change seriously.*   *If we followed the alternative policy we have considered, it would mean that:*   * *Carbon neutrality targets will not be met if we don’t make changes to the transport network.* * *If carbon neutrality isn’t achieved, we will see a decrease in quality of life for future generations.*   *Reason for chosen policy:*   * *This is integral to achieving environmental targets. New technology such as sensors and tracking data can better inform where on the network these changes are most effective.* * *We are currently developing an Electric Vehicle strategy, which will provide 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 have also commissioned work to understand the most effective measures to reduce carbon, and will be able to report the outcomes of this in our final plan* | |
| **Proposed Policy 13** | **Alternative** |
| **Quality of place will be improved through improving the transport network.** | **NCC will concentrate funding on making transport networks functional.** |
| *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.*   *If we followed the alternative policy we have considered, it would mean that:*   * *Norfolk is a less attractive place to be, and its residents will see their transport options as a barrier to living healthy lifestyles.* * *Environmental targets will not be met and have a negative effect on future generations.*   *Reason for chosen policy:*   * *This is integral to achieving environmental and economic targets and improving quality of life. 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 County wide 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 Governments 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.

🟋 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.

## Challenges

There are issues with pollution from vehicles causing local air quality issues which can contribute to climate change.

We have to make sure that actions are taken to improve CO2 levels do not simply displace the problem. CO2 can be reduced by replacing petrol and diesel for electric cars. However, we need to ensure that the emissions aren’t displaced to the power generation for charging these vehicles. 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 we 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 has recently adopted an Environmental Policy including an aim to work towards becoming carbon neutral by 2030. The Local Transport Plan will set out what actions we need to take to achieve this. It is likely that, to be successful – and also to make improvements to air quality – we will all need to change how we travel.

## Climate change and Priorities for Reducing Emissions

Decisions need to avoid unintended consequences around poor air quality and fully consider equality and social impacts. Therefore, we need to develop measures for reducing pollution, increasing active travel and reducing inequalities. We have commissioned consultants to undertake a piece of work looking at the carbon reduction outcomes of different policy levers. The outcome of this work will inform our final plan, and our implementation plan.

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 in Air Quality Management Areas (AQMAs). An innovative approach to monitoring air quality and the use of data should help to do this.

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.

**Policy 11**

**Action will be taken to improve air quality in urban centres, including investigating vehicular restrictions or charging, in order for air quality to fall below the threshold for Air Quality Management Areas.**

## 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
  + 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.
* Impact of air pollution on inequality.

**Policy 12**

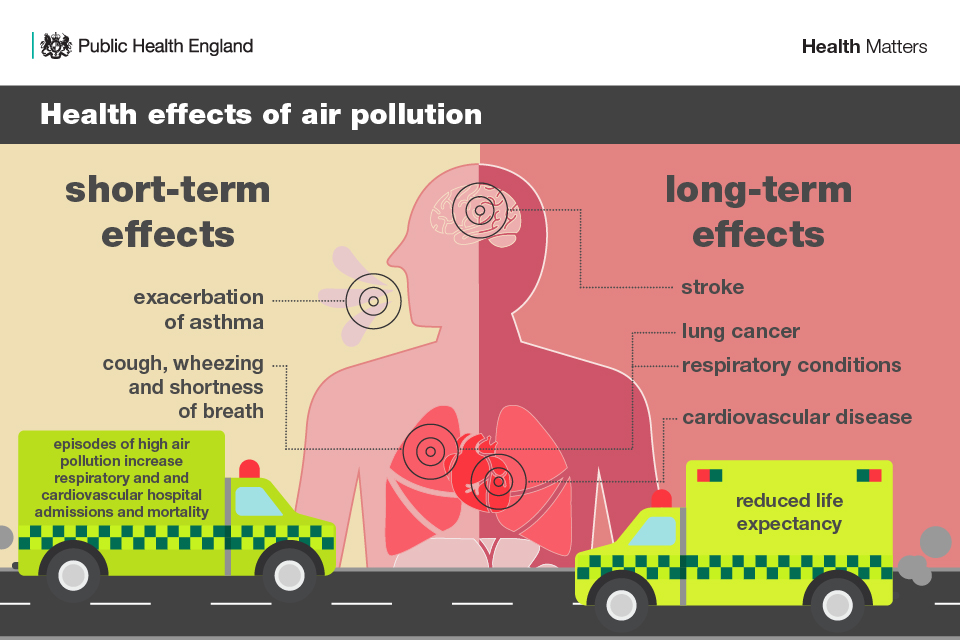
**We will change our transport network to work towards carbon neutrality by 2030.**

## Travel choice and behaviour

* 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.
* Restricting polluting vehicles in vulnerable / priority areas, such as charging vehicles to enter high CO2 areas.
* Electrification of the bus services and private hire vehicles will be vital to reduce emissions in the long term. The fuel-price stability ofelectricity over diesel can also benefit the transport providers.
* Support for pedestrian access as a cleaner and cheaper method of active travel.
* Developing and implementing a systems approach to travel behaviour change, leading to a modal shift to public and active transport.
* We could encourage or develop electric uber type services to reduce the congestion on roads.
* We must make substantial improvement for walking and cycling and cycle parking in city/town centres and residential areas to make them a more desirable option. Also, working 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.

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.

## Air quality and pollution



There are currently Air Quality Management Areas declared in parts of King’s Lynn, Swaffham and Norwich inner ring road. 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.

## Transport and the environment

Large organisations, both in public and private sectors, with high movements of people and services could look both at vehicle procurement and low emission alternatives, as well as how work patterns are managed to reduce long distance travel and single use journeys across a large county. Teaching eco-driving techniques and fleet management can also help staff make better choices even if they have to drive a car. Businesses should start moving towards a more efficient vehicle fleet.

In 2018 an estimated 33 per cent of carbon dioxide (CO2) emissions were from the transport sector, making it now the most polluting sector in the UK. High levels of CO2, nitrogen dioxide, particulate matter and other pollutants, along with the long-term effects on the climate will have health implications for population.

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
* Behaviour change to encourage the take up of less polluting transport options
* 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
* 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 interventions to stop levels getting to high
* 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.

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.

**Policy 13**

**Quality of place will be improved through improving the transport network.**

## 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:

* Access to and within Norwich. Access to and within large urban areas have their own issues such as idling busses leading to poor air quality. Encouraging interventions such as cycling and walking can contribute to easing congestion.
* Access to and within towns and urban areas. Access should be a key part in planning for new developments in urban areas, which can contribute to congestion around towns and urban areas.
* Access in rural areas. Encourage alternatives to the private car while acknowledging that there are barriers such as narrow roads, farm traffic and perceived safety issues. How we can work with public transport providers to improve services in rural areas and barriers to improving these services.
* Access for all. People who are considered to have a disability or the elderly can find access difficult and their needs should be considered in planning transport infrastructure.
* 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 is currently being done to better understand how travel patterns have been affected.

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.
* Norfolk’s dispersed population makes it difficult to provide some forms of transport, such as regular busses, 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 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

We have set out policies to help guide the decisions we make on transport. While developing these policies we have also considered alternative policies we could focus on instead, and set out the reason these policies have not been chosen.

In the final Local Transport Plan we will not set out the alternative policies, or why they have not been included. In this draft LTP they are set out so that readers can understand which alternatives we have considered, and why we are proposing to choose the preferred policy for the final plan.

|  |  |
| --- | --- |
| **Proposed Policy 14** | **Alternative** |
| **Agencies in Norfolk should tackle accessibility problems in partnership, targeting those communities most in need. Accessibility should be planned as part of service delivery.** | **Accessibility for new developments could be planned from the planning applications stage** |
| *What this means in practice:*   * *We will work in partnership with transport providers (bus companies) to ensure services run smoothly. Amongst other things we will*   + *Facilitate the commercial operation of the 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 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* * *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* * *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*   *If we followed the alternative policy we have considered, it would mean that:*   * *We do not work in partnership with transport providers and simply rely on the market to provide the services that people need to get where they want to.* * *When planning services and facilities providers do not take account of the ability for people to get there and instead consider other factors such as availability of premises and the cost. When up and running, the service tries to deal with any difficulties people have (in accessing the service) themselves*   *Reason for chosen policy:*   * *Intervention on new developments rely on developers to assess accessibility and may not reflect residents’ and service users’ needs. We will need to consider the implications of government’s just-published Planning White Paper if this results in major changes to how we have to work on these issues.* | |
| **Proposed Policy 15** | **Alternative** |
| **Priority on some routes should be given to sustainable and active modes of transport.** | **Efficient movement to town and urban centres should be enabled for all modes. Priority should be on achieving a balance between access for car drivers, including the availability of car parking, and the attractiveness of sustainable travel options like walking, cycling and public transport.** |
| *What this means in practice:*   * *On certain corridors in urban areas we would 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.* * *People would feel safer and more encouraged to uptake healthier modes of transport if they are given priority and not sharing space.*   *If we followed the alternative policy we have considered, it would mean that:*   * *We try to make provision for access in urban areas to all types of user on each corridor, and do not favour sustainable and active modes on some roads* * *People feel less safe where they share the roads with other users, particularly in rural areas where there are more likely to be lack of footways and cycleways.* * *Recent Government guidance discourages shared use for active forms of transport.*   *Reason for chosen policy:*   * *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* * *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.* | |
| **Proposed Policy 16** | **Alternative** |
| **We will work towards providing a network where transport and movement provision is accessible to all.** | **Provide dedicated facilities and dedicated space for people with disabilities and different types of users.** |
| *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.* * *We should provide more information, support and infrastructure to users to help them move away from the idea that some modes of transport are not an option.*   *If we followed the alternative policy we have considered, it would mean that:*   * *We would separate different types of users and provide 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.*   *Reason for chosen policy:*   * *NCC encourage a safe and reliable transport network for all users and not segregate those with disabilities. More information on the safe systems approach is covered in the Safety chapter.* | |

## Achievements

🟋 NCC 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 NCC 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.

🟋 Norfolk has a good network of community transport operators and community car schemes. Many of these receive no funding from NCC 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 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 1,200 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.

A series of 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

NCC use 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 with a limited rail network and dispersed population
* Public transport is frequently seen as a less attractive mode of transport to the car
* The bus and community transport market are very fragile, and the County Council subsidises several routes
* There is limited funding for transport interventions
* The natural and historic environment can create barriers to road 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 exasperated 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

Focus will be to:

* Maintain current commercial network and support operators
* Grow rural transport network and increase frequency on inter-urban routes if further funding becomes available
* Increase number of routes with bus priority measures
* 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 (e.g. 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
* Ensure there are options for all population sub-groups such as people with disabilities and elderly people.

## Tackling poor accessibility

Poor accessibility can affect a range of outcomes including the economy, and people’s health, skills and aspirations. It is not only about the availability of transport. 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 county council has a specific responsibility in maintaining and managing the transport network, and in delivery of this we will, a*mongst 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*

All sectors of our community need reliable and equal access to employment and leisure services so people can live independently. Otherwise people with disabilities are more likely to experience social isolation. Government has expressed a need to move from infrastructure design and service provision which focuses mainly on achieving 'accessible transport'.

**Policy 14**

**Agencies in Norfolk should tackle accessibility problems in partnership, targeting those communities most in need. Accessibility should be planned as part of service delivery.**

## Access to and within Norwich

NCC want to encourage the use of more sustainable forms of transport, such as public transport, cycling and walking, while also improving the capacity of the road network, in particular through the [completion](https://www.norfolk.gov.uk/roads-and-transport/major-projects-and-improvement-plans/norwich/broadland-northway) of the Norwich Western Link.

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, particularly around Castle Meadow air quality management area. Make improvements to Castle Meadow are vital so that it is a more attractive and efficient place to catch a bus.

NCC will continue with the programme of increasing the number of walking and cycling routes. Also, create a new public transport route to connect Norwich Airport to the airport industrial estate.

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.

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. However, this should be linked to reduced car parking availability and increased parking charges to encourage uptake.

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 here. The results of the Transport Plan consultation show 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. This can be achieved by planning sustainable links within new developments and working with bus companies to provide cheaper, more reliable bus fleets.

We recognise the need to better integrate public transport with school transport and provide travel training so more young people can access this. It is also important to make sure useable and sustainable links exist from new housing developments through infrastructure, as well as transport services and offering incentives not to drive.

New growth in urban areas have the potential to worsen current congestion areas during weekday peak hours and also for accessing the leisure and tourism in the nearby coastal and market towns, particularly in King’s Lynn. Residential estates need to safely access services in the urban centre. Norwich and King’s Lynn both face issues with access to bus stations and better links are required between rail and bus, alongside better information on services to plan journeys.

Providing earlier and evening weekday buses for King's Lynn as well as Sunday and Bank Holiday services to relieve traffic congestion to access employment and address social inclusion has been identified. This was further supported in the Local Transport Plan consultation, which shows that there is a need to support those who work outside conventional 9am-5pm hours.

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.

**Policy 15**

**Priority on some routes should be given to sustainable and active modes of transport.**

## Access in rural areas

The recent Local Transport Plan consultation shows 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. However, routes for cycling and walking are often seen as too unsafe and public transport seen as too infrequent to be useful, particularly for commuting.

NCC currently work 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 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 community transport can cater for those with physical disabilities, and that young people have the access they need for education and work opportunities.

To help people access the transport network, information needs to be easily accessible to all people and it a format people can use. Barriers to the network can include, mobility issues, disability, age, hidden disabilities and cost and frequency of transport options.

*Disability groups*

NCC will support 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 arehand 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.

Some rail stations, such as Wymondham, are still not accessible for disabled users, which restricts travel options for some users. Many disabled people feel that they can only use a private car as busses, trains, and bus replacement services cannot guarantee they will be accessible.

*Elderly*

Elderly residents often struggle to access public transport due to delayed and cancelled services. Elderly people are often left waiting at rural bus stops with no information on how long busses have been delayed or cancelled and insufficient cover or seats to wait for long periods. Access to bus stops I also difficult in rural areas as they can be too far to walk, and lack of footways makes it unsafe for walking.

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.

Encouraging walking and cycling for older people could help their health and wellbeing, and reduce feelings of social isolation, but these modes are often seen as less safe for older people, particularly in rural areas. An integrated transport network and better, clearer information on services could help older people access services by public transport.

**Policy 16**

**We will work towards providing a network where transport and movement provision is accessible to all.**

## 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 87% of Norfolk properties in March 2017. 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

We have set out policies to help guide the decisions we make on transport. While developing these policies we have also considered alternative policies we could focus on instead, and set out the reason these policies have not been chosen.

In the final Local Transport Plan we will not set out the alternative policies, or why they have not been included. In this draft LTP they are set out so that readers can understand which alternatives we have considered, and why we are proposing to choose the preferred policy for the final plan.

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| **Proposed Policy 17** | **Alternative** |
| **The number of people killed and serious injured on the road network will be reduced by adopting a safe systems approach and working with partners to achieve this vision.** | **Focus on improving the skills and knowledge of vulnerable road users, relying on their capability to manage each variable and risk on the road.**  **Make transport network appear safer to make it more comfortable for different road users.** |
| *What this means in practice:*   * *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.* * *Transport systems would be designed or changed so that survivability is maximised through the following measures (amongst others): Designing or modifying roads to reduce the risk of crashes; Safe separation or safe integration of different road users; Managing speeds; Deterring dangerous behaviour and ensuring compliance with key rules by social marketing and enforcement; Fast and efficient emergency medical help, diagnosis and care*   *If we followed the alternative policies we have considered, it would mean that:*   * *We focus on improving the skill sets of people who use of the network, and their behaviour on it, relying on this type of intervention being sufficient to reduce mistakes and crashes* * *We could also implement measures that reduce people’s fears about using the network. This might be through additional streetlighting for example.*   *Reason for chosen policy:*   * *The safe systems approach is widely considered the best approach to create risk-aware drivers through education and publicity, encouraging all road users to travel unimpaired, alert, at safe speeds. It also acknowledges that people make mistakes and looks to reduce the consequences of mistakes through measures designed to increase survivability from a crash and efficient help and care afterwards.* * *Relying on people not to make mistakes in the first instance goes some way to reducing casualties but should be one component of an integrated system. Also, focussing only on improving the skills of vulnerable road users could deter people from cycling or walking more (which have benefits in terms of improving people’s physical and mental health) or to use other forms of transport such as motorbikes, moped or scooters, which have environmental benefits.* * *Simply improving people’s perception that networks are safe might encourage more people to walk or cycle but could lead to a situation where travellers feel safe and are not sufficiently aware of dangers or the consequence of crashes, perhaps particularly in respect of non-vulnerable users (people in vehicles). There are also funding and environmental implications of some of the measures that would make people feel safe including enhanced streetlighting or engineering interventions on the network.* | |

## 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 Highways England 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 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, Highways England and the Office of the Police and Crime Commissioner.

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

EvidenceThe 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.  
  
ChallengesSeeking 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.

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

## 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.

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.

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

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**

**The number of people killed and serious injured on the road network will be reduced by adopting a safe systems approach and working with partners to achieve this vision.**

## 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.

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 – NSAC
* National Motorway Awareness Course – NMAC
* What’s Driving Us – WDU
* Safe & Considerate Driving – SCD
* Rider Intervention Development Experience – RIDE
* Your Belt Your Life – YBYL, online course facilitated by the Safety Camera Partnership.

Upwards of 30,000 clients per year access courses. These are a blend of behaviour change interventions with an element of on road coaching within the Safe and Considerate Driving (SCD) 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.

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.

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

Safevehicles

Opportunity for Norfolk

Contributing to the road safety evidence base

Habitual/Automated behaviours

Risk taking behaviours

Build capacity in the community

Road safety education in schools

Sharing the road

Potential goal

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  
  
Influence the road user to be mindful and alert during their regular journeys  
  
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  
  
Work collaboratively with key stakeholders to achieve a Safe Systems approach in Norfolk  
  
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

Agree an approach including campaigns and interventions to keep two-wheeled road users safe whilst promoting sustainable active travel

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.

## Reducing casualties

No new targets have been set as there are too many variables which have an impact on number of collisions which cause casualties. However, the use of Power Bi dashboards will help partner organisations target interventions more precisely.

## Innovation

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.

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.

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 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

We have set out policies to help guide the decisions we make on transport. While developing these policies we have also considered alternative policies we could focus on instead, and set out the reason these policies have not been chosen.

In the final Local Transport Plan, we will not set out the alternative policies, or why they have not been included. In this draft LTP they are set out so that readers can understand which alternatives we have considered, and why we are proposing to choose the preferred policy for the final plan.

|  |  |
| --- | --- |
| **Proposed Policy 18** | **Alternatives we have considered** |
| **To bring about an improvement in the condition of Norfolk’s highway network, maintaining the current asset should be a key priority for funding. Works should be targeted to ensure A and urban / inter-urban routes are in good condition.** | **Increase the coverage of funding to all of the network, maintaining it to the same standard, including rural roads.** |
| *What this means in practice:*   * *We will use the annual allocation from government predominantly for maintenance and maximise other funding sources 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.*   *If we followed the alternative policy we have considered, it would mean that:*   * *All of the network (urban / rural, main roads / minor roads and carriageways / cycleways / pavements would be maintained to the same standard. Funding would have to be spread across the whole of the network.*   *Reason for chosen policy:*   * *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.* | |
| **Proposed Policy 19** | **Alternatives we have considered** |
| **in market towns and urban areas, we will focus maintenance on corridors for sustainable transport used by walkers and cyclists.** | **Focus maintenance on carriageways to make conditions comfortable for cars.** |
| *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 we followed the alternative policy we have considered, it would mean that:*   * *We would prioritise keeping the carriageway for general traffic at the highest standard possible, rather than focussing on pavements and cycleways*   *Reason for chosen policy:*   * *If more people chose 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*. | |
| **Proposed Policy 20** | **Alternatives we have considered** |
| **We will focus on measures to improve public transport in urban areas, and elsewhere we will focus on reliable journeys for all users.** | **Ensure priority for cars.** |
| *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 bur 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’).*   *If we followed the alternative policy we have considered, it would mean that:*   * *We would try to make improvements that keep car traffic moving, as this is seen by some people as important to support the economy including retail businesses* * *Across the county most journeys are completed by car*   *Reason for chosen policy:*   * *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 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.)* * *Focussing on car traffic would not support wider objectives including reducing congestion, improving health outcomes, reducing carbon or support government policy and environmental challenges discourage focus on motorised vehicles as a priority.* | |
| **Proposed Policy 21** | **Alternatives we have considered** |
| **The likely impacts of climate change on the highway network should be addressed, with a risk-based approach taken to determining the priority for action.** | **NCC will take a demand responsive approach to climate change intervention.**  **Network resilience should form a key part of the Transport Asset Management Plan to ensure there is preparation for future impacts.** |
| *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 preferred policy would 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*   *If we followed the alternative policy we have considered, it would mean that:*   * *We would take action to repair or restore the network once it has been affected by the impacts of climate change.*   *Reason for chosen policy:*   * 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. | |
| **Proposed Policy 22** | **Alternatives we have considered** |
| **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.** | **Continue using existing data analytics to assess where to target funding on the network.** |
| *What this means in practice:*   * *We will embrace new and innovative technology so that we can better monitor and maintain our networks and provide information to users.*   *If we followed the alternative policy we have considered, it would mean that:*   * *We would simply use existing data collection measures that largely rely on manual counts or – at some sites across the county – the use of specialist equipment to record usage.*   *Reason for chosen policy:*   * *Public behaviour, electric vehicle technology and priorities for traveling are changing rapidly and NCC have 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 new infrastructure

🟋 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.

*“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

EvidenceSuccessful 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 were ranked 1st 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 the DfT Maintenance Challenge Fund. 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 £2.539m grant has also been received for Tranche 2B, 2019-20, for resurfacing A1122 Marham & A1066 Brettenham to Riddlesworth. This is a £2.818m scheme due 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 we are currently awaiting the outcome of the next government spending review
* 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 major A roads in Norfolk (A11 and A47) which are managed and maintained by Highways England. 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.

Priorities Highway Asset Maintenance Policy and Strategy was refreshed and approved by Norfolk County Council’s Cabinet in January 2020 for 2020-23. We will consider the need for a refresh following government budget announcements or the five-year spending review.

It is becoming 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 (EHA3) is a Regional Framework contract designed to reduce the time and cost of maintenance by created a bank of contractors to manage highway maintenance and management schemes
  + NCC has an in-house design function, enabling us to respond quickly to need
  + NCC have a contractor partnership with WSP to support the highway works programme
* Major Projects
  + Includes projects such as the 3rd 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 EHA3

*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

## 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 over 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.

We will prioritise maintenance spend on the most used parts of the network; main roads and urban area. 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 18**

**To bring about an improvement in the condition of Norfolk’s highway network, maintaining the current asset should 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 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.

**Policy 19**

**In market towns and urban areas, we will focus maintenance on corridors for sustainable transport used by walkers and cyclists.**

## 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.

Within urban areas we recognise the importance of bus travel for people to access essential jobs and services. To encourage use, and to avoid buses getting caught in general congestion, we will focus on providing bus priority or cycling on certain corridors even if this means it might take longer for general traffic to use the routes. 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’)

**Policy 20**

**We will focus on measures to improve public transport measures in urban areas, and elsewhere we will focus on reliable journeys for all users.**

We are exploring ways we can better capture cycling and walking data (eg we now have access to Strava analysis tools). This will help identify areas of greatest need for walking and cycling 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.

## 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 is comprised mainly of 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.

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 use 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.

**Policy 21**

**The likely impacts of climate change on the highway network should be addressed, with a risk-based approach taken to determining the priority for action.**

## 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. NCC seek 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.

NCC developed a method of strengthening the existing sub-grade on the NDR allowing a thinner traditional pavement design, which could be adopted by Highways England 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.**

# 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.

🟋 *NCC* *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***

*NCC 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 13th Jan – Friday 28th 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.

Value for money and resource availabilityValue 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

NCC is seeking funding from wide variety of sources:

* Capital funding from the maintenance and integrated transport blocks
* Local Major Scheme funding
* Developer funding - Community Infrastructure Levy and S.106 contributions
* Norfolk Infrastructure Fund
* Local Sustainable Transport Fund
* Regional Growth Fund
* EU funding
* Tax Incremental Financing
* Delivery partners, such as Sustrans
* New homes bonus
* DfT “Cycle ambition in national parks” funding
* LTP Integrated Transport Grant
* Cycle City Ambition Grant
* Roads Investment Strategy 2
* National Productivity Investment Fund
* Growth Deal
* 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
* Major road network