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moving



more freely,
safely and
efficiently



Foreword

Essex Local Transport Plan – 2006 / 2011



I cannot think of a higher priority for the County Council than for it to strive to achieve a first class highways and transportation system for all who live in, work in or visit the county of Essex. The challenges in front of us are enormous. Over 130,000 new houses are being proposed for Essex and its borders with surrounding authorities, the travel needs of which will have a direct impact on the transport network in Essex. We are being asked to provide transport infrastructure to support the nationally important growth areas of Thames Gateway and the Harlow, Stansted and M11 corridor, to enable freight to access new expanded sea ports at Shellhaven and Bathside Bay, and to accommodate the substantial expansion of London Stansted Airport. This is set against a backdrop of serious historical under-investment in transport to meet existing demands, particularly along the A12/Great Eastern Corridor.

In our first Local Transport Plan (2001-2006) we concentrated on providing choice and increased the amount of investment on roads, public transport and other areas of our work from £12.6M pa to £31.6M pa now. Our stakeholders have now asked us to concentrate on some key aspects of travel and to ensure that our second LTP (2006-2011) is characterised by a degree of focus on maintaining the fabric of our highways to a higher standard, improving accessibility, tackling congestion, getting people to jobs and addressing the needs of inter-urban travel.

Inevitably we have to make choices, choices in terms of which roads and public transport corridors we invest in, choices in terms of which areas of Essex we feel are in greatest need for investment and choices in how we seek to attract funding to implement our programme. I believe our second LTP achieves the balance of investment which allows us to meet our challenges with confidence in what we feel the people of Essex want, and to achieve tangible differences that will improve the lives of all who rely on the transport system across the county and beyond.

I am committed to delivering a transport system to meet the challenges we face in Essex and look forward to working in partnership with a wide range of people and organisations in order to bring about the transformation we now need.

A handwritten signature in blue ink, appearing to read 'Rodney L. Bass', written over a light blue horizontal line.

Councillor Rodney L. Bass
Cabinet Member for Highways and Transportation

Table of Contents

	Page
Vision	10
Wider Context	15
Chapter 1 – Introduction	16
The Second Local Transport Plan Process	16
Developing the second LTP in partnership	19
Cross Border Working	25
Impact Assessments of the second LTP	28
The Structure of the second LTP	30
The Next Steps	31
Chapter 2 – Regional and National Context	33
Introduction	34
National Policies and Context	40
Regional Policies and Context	41
Regional Cross Boundary Issues	47
Partnerships	49
Chapter 3 – The Character of Essex	53
Setting the Scene	54
Living in Essex	54
Chapter 4 – Challenges and Opportunities	75
Introduction	76
Accessibility	78
Congestion	81
Air Quality	86
Safer Roads	89
Maintenance	92
Quality of Life	94
Economy and Growth	97

	Page
Our Transport Strategy	103

Chapter 5 – Essex Transport Strategy	104
Essex Transport Strategy Framework	104
Transport Vision, Aims and Objectives	106
Lessons Learnt from the first Local Transport Plan	109
Transport Modelling in the County	111
Policy Framework	116
Policy Toolbox	117
Strategies to Deliver Accessibility	120
Strategies to Manage Demand	133
Strategies to Promote Air Quality	152
Strategies to Create Safer Roads	157
Strategies to Enhance Maintenance	164
Strategies to Achieve Wider Aims	172

Chapter 6 – Area Transport Delivery Strategies	185
The Approach	186
Large Urban Areas	191
Inter-Urban Routes	193
Rural Areas: Market and Small Towns	195
Basildon and the Thames Gateway	201
Colchester and the Haven Gateway	206
Chelmsford and the Heart of Essex	211
Harlow and the Stansted/M11 Corridor	216
Braintree and the North of Essex	221

Delivery and Value for Money 225

Chapter 7 – The Delivery Programme	226
Realising the Essex Vision	226
Value for Money – Integrated Transport and Structural Maintenance	226
Use of Additional Funding Sources	230
Structural Maintenance of Carriageways and Bridges –Making Best Use of Existing Infrastructure	233
Delivery of Projects for second LTP Plan 2006-2011	236
Major Schemes for Submission in the second Local Transport Plan	238
Revenue Funding	246
Planning for Growth and Delivering the Programme	247
Realistic Funding Sources	248
Making the Best Use of Resources	251

Indicators, Targets and Trajectories 263

Chapter 8 – Targets and Performance Management	264
Introduction	264
Indicators for Essex	266
Links between Key and Intermediate Outcomes	268
Trajectory and Trajectory Analysis	274
Risk Management	275
Continuing Performance Management	277
Securing Performance	278

Figures

Page

Figure 1.1	The Five Area Transport Delivery Strategies	17
Figure 1.2	The second LTP Consultation Process	20
Figure 2.1	The Geographic Setting of Essex	34
Figure 2.2	The Prioritised Regional Strategic Transport Projects	47
Figure 2.3	Thames Gateway South Essex Potential New Partnership Arrangements	50
Figure 3.1	Average Household Size Across Essex	55
Figure 3.2	Student Population Across Essex	56
Figure 3.3	Health Across Essex	57
Figure 3.4	Areas of Multiple Deprivation Across Essex	57
Figure 3.5	GDP across the East of England Region	58
Figure 3.6	Unemployment Rates Across Essex	59
Figure 3.7	Road Hierarchy in Essex	60
Figure 3.8	Traffic Growth on the Essex Road Network (vehicles per day)	61
Figure 3.9	Rail Network in Essex	63
Figure 3.10	Movement between Essex and Surrounding Authorities	66
Figure 3.11	National Travel Survey 2003 – Modal Split	67
Figure 3.12	National Travel Survey 2003 – Journeys to School	68
Figure 3.13	Access to Hospitals	70
Figure 3.14	Access to Further Education Facilities	71
Figure 3.15	Unemployment Across Essex	72
Figure 4.1	Network Congestion Now	82
Figure 4.2	Network Congestion in the Future	82
Figure 4.3	AQMAs (Air Quality Management Areas) within Essex	88
Figure 4.4	Essex Accident Rate	90
Figure 5.1	The Accessibility Causal Chain	121
Figure 5.2	The Congestion Causal Chain	134
Figure 5.3	The Air Quality Causal Chain	153
Figure 5.4	The Safer Roads Causal Chain	158
Figure 5.5	The Maintenance Causal Chain	166
Figure 5.6	The Quality of Life Causal Chain	172
Figure 6.1	The Five Area Transport Delivery Strategies	190
Figure 6.2	Basildon Strategy Area	202
Figure 6.3	Colchester Strategy Area	207
Figure 6.4	Chelmsford Strategy Area	212
Figure 6.5	Harlow Strategy Area	217
Figure 6.6	Braintree Strategy Area	222
Figure 7.1	Allocation of Integrated Transport Funding	227
Figure 7.2	Funding Allocations and Planning Guidelines for Essex	229
Figure 7.3	Integrated Transport Budget	230
Figure 7.4	Developer Funding	232
Figure 7.5	Structural Maintenance of Carriageways and Bridges	234
Figure 7.6	The planning, delivery and monitoring life cycle	238

Figures		Page
Figure 7.7	Delivery of the Shared Objectives – Accessibility	257
Figure 7.8	Delivery of the Shared Objectives – Air Quality	258
Figure 7.9	Delivery of the Shared Objectives – Congestion	259
Figure 7.10	Delivery of the Shared Objectives – Road Safety	260
Figure 7.11	Delivery of the Shared Objectives – Maintenance	261
Figure 8.1	Life Cycle of Scheme and Indicator Development	265
Figure 8.2	Shared Priority Indicators and Outcomes – Safer Roads	269
Figure 8.3	Shared Priority Indicators and Outcomes – Delivering Accessibility	270
Figure 8.4	Shared Priority Indicators and Outcomes – Tackling Congestion	271
Figure 8.5	Shared Priority Indicators and Outcomes – Promoting Better Air Quality	272
Figure 8.6	Shared Priority Indicators and Outcomes – Enhancing Maintenance	273
Figure 8.7	The KPI Day Yearly Cycle	279

Tables	Page	
Table 1.1	Consultation Summary	23
Table 1.2	How consultation has influenced the second LTP	24
Table 2.1	The National, Regional and Local Transport Policies	36
Table 3.1	Self Containment Levels for each Area Transport Delivery Strategy	65
Table 4.1	Summary of Key Challenges and Opportunities in Essex	77
Table 4.2	Current AQMAs and Air Quality Hotspots in Essex	87
Table 5.1	Essex Transport Strategy Framework	105
Table 5.2	The different Transport Models used by the County Council	112
Table 5.3	The Relationship between Transport Intervention and Essex LTP Objectives	117
Table 5.4	Objectives and Policy Interventions for Essex	118
Table 5.5	Essex Policy Documents	119
Table 5.6	Shared Accessibility Objectives	120
Table 5.7	Accessibility Planning Strategy Process	125
Table 5.8	Addressing Accessibility Issues through the Road Passenger Transport Strategy	126
Table 5.9	Rail Policy and Community Rail Partnership Interventions to Increase Accessibility	129
Table 5.10	Major Infrastructure Requirements	149
Table 5.11	Links between Intervention Type and Congestion Objective	151
Table 5.12	Congestion Targets	151
Table 5.13	Links between Intervention Type and Air Quality Objective	156
Table 5.14	Air Quality Targets	156
Table 5.15	Links between Intervention Type and Safer Roads Objective	163
Table 5.16	Safer Road Targets	163
Table 5.17	Links between Intervention Type and Maintenance Objective	171
Table 5.18	Maintenance Targets	171
Table 5.19	Links between Intervention Type and Quality of Life Objective	183
Table 5.20	Links between Intervention Type and Economy and Growth Objective	184
Table 6.1	Summary of Area Transport Delivery Strategy Characteristics	187
Table 6.2	Large Urban Areas' Characteristics	192
Table 6.3	Inter-urban Areas' Characteristics	194
Table 6.4	Rural Areas' Characteristics	197
Table 6.5	Delivery Programme for Basildon and the Thames Gateway	205
Table 6.6	Annual Mean NO ₂ concentrations in Mersea Road AQMA (µgm ⁻³)	208a
Table 6.7	Annual Mean NO ₂ concentrations in Brook Street AQMA (µgm ⁻³)	208b
Table 6.8	Delivery Programme for Colchester and the Haven Gateway	210
Table 6.9	Annual Mean NO ₂ concentrations at the Army and Navy AQMA, Chelmsford (µgm ⁻³)	212b
Table 6.10	Annual Mean NO ₂ concentrations at Wilson's Corner AQMA, Brentwood (µgm ⁻³)	213a
Table 6.11	Delivery Programme for Chelmsford and the Heart of Essex	215

Tables	Page	
Table 6.12	Annual Mean NO ₂ concentrations at selected sites in Uttlesford (µgm ⁻³)	218a
Table 6.13	Delivery Programme for Harlow and the M11/Stansted Corridor	220
Table 6.14	Delivery Programme for Braintree and North Essex	223b
Table 7.1	100% Integrated Transport and Maintenance Allocations (£'000)	229
Table 7.2	Potential Funding for Capital Maintenance over the LTP period	235
Table 7.3	Summary of Expenditure for Integrated Transport and Structural Maintenance of Carriageways 2006-2011	236
Table 7.4	Predicted Profile of Expenditure for Integrated Transport and Structural Maintenance 2006-2011	237
Table 7.5	Major Projects for Delivery by Partners	244
Table 7.6	Revenue Budgets for 2006/07	247
Table 7.7	Accessibility Planning Delivery Partnerships	254
Table 7.8	Road Safety Delivery Partnerships	255
Table 8.1	Indicators for the second LTP	267

Vision

The Challenge

The scale and complexity of change facing Essex is more marked now than at any time in its history and includes increased port and airport development and a significant level of housing growth. It is therefore essential that the many people who live, work, conduct business or travel in or through the county understand how Essex County Council intends to manage and direct resources. Transport is not an isolated activity but is at the very heart of how people access jobs, services goods and leisure activities.

At the commencement of the preparation of this second Local Transport Plan, Essex County Council began the development of a new inclusive approach to listening to its community and stakeholders in how best to manage the future challenges. Prioritising when, where and how best to target resources is essential and has required a fundamental change in the way transport professionals are now directed to deliver value for money schemes that make a positive difference by tackling congestion and thereby improving quality of life. These are fundamental themes that run throughout this second Local Transport Plan, and characterise service provision to the people of Essex by the County Council as a whole.

It has to be recognised that the car will remain central to the needs of Essex people. However, alongside investment in the core and expanded road network (to bring Essex up to standard), new transport systems such as SERT (the rapid transit system for South Essex) are essential to further strengthen Essex's substantial and growing bus networks, and provide choice in travel.

Our Vision and Approach

Essex County Council has a vision to:

*“create safe, healthy, diverse and sustainable communities that are open and welcoming to all; where people want to live, work and visit; where people and communities take charge of their lives through active citizenship; where heritage is valued and innovation thrives; **where people can travel easily, both locally and through making the most of excellent access to London, the rest of England and Europe**”*

This vision has been developed through the Essex Partnership which has worked with the people of Essex to determine their needs and concerns about life in the County. The *Essex Partnership* comprises the County, Borough, District and parish councils, the police and fire authorities, Health Trusts, businesses and voluntary sector organisations.

The partnership has developed a number of key themes which reflect the way the people of Essex wish services to be planned and delivered. These are:

- being part of a community
- feeling safe
- being healthy
- creating opportunities
- getting around
- being served well and fairly
- conserving our environment
- having fun

Essex people see these as important, but the common thread is a desire for a community that is both safe and accessible, which provides opportunity for all while protecting and conserving the environment. The Essex Partnership has picked out transport as key to ensure that we can all:

“travel safely, sustainably and on time, and where things can be done without the need to travel far.”

In order to achieve the aims of this vision, Essex County Council must confront the sometimes contradictory problems of a large and diverse county. Truly recognising the views of 1.3 million people, and the many organisations representing specific interests is the major challenge which can only realistically be achieved by stronger partnership working.

In order to fund suitable integrated packages of transport works, new and innovative funding mechanisms are being developed to add value to the commitment of the Government in its integrated transport and maintenance planning guidelines, albeit that these must now be reviewed to better reflect the scale of the Essex challenge.

Strategy and Objectives

During the development of the second Local Transport Plan extensive and detailed consultation with over 200 stakeholders and the general public has taken place. Consequently the views of those involved in the consultation process have helped to shape the second Local Transport Plan. To ensure that the County Council continues to listen, annual seminars will continue to be held. At these events stakeholders and members of the public will be able to participate in debate stimulated from DfT feedback, which will help to improve the second Local Transport Plan.

The Highways and Transportation Department continually consults with stakeholders across all District and Borough Councils within Essex through a range of mechanisms including the Local Strategic Partnership, the Local Area Forums and directly through Local Service Agreements. Regular consultation with all our stakeholders is essential to the delivery of the aims and objectives of the second Local Transport Plan.

A balanced approach is required to ensure the appropriate mix between demand management and the need for infrastructure. To this end the vision has been encapsulated by five objectives around which strategies are developed. The first four objectives have been defined in relation to the Government's Shared Priorities. The fifth objective, highway maintenance, reflects the importance the County Council is giving this matter, having consulted with the public.

The five objectives are:

- **Tackling Congestion:** To reduce the rate and incidence of congestion and its effects on residents and businesses in Essex
- **Delivering Accessibility:** To enhance accessibility to key services (Education, Employment, Healthcare and Retail)
- **Creating Safer Roads:** To improve safety on the transport network and to enhance and promote a safer travelling environment
- **Promoting Better Air Quality:** To manage the impact of road and air transport on air pollution
- **Enhancing Maintenance:** To maintain highways and public rights of way to a standard appropriate to their use

Central to the planning of these objectives is the division of Essex into five discrete geographic areas in which packages of work can be tailored and implemented to meet local needs. At the heart of these are the regionally identified interchange centres of Chelmsford, Basildon Harlow, Colchester and locally identified Braintree. The strategies contain general and specific measures for identifying and dealing with the main travel components of:

- Travel within urban areas
- Inter-urban travel
- Rural travel and the travel needs of smaller towns
- The Role of Demand Management

Each of the strategies will address the five key objectives set into context with the wider issues of the economic and growth needs for each of the areas.

This second Local Transport Plan has been prepared to meet the challenge of change. It takes full account of the national and local agendas and will respond to changes in the pace of growth and future needs as they become apparent. The Plan may have to adapt to future challenges and the County Council will address these over the next five years through a Progress Report and dialogue with its partners. It focuses on:

- Defining problems systematically
- Discussing issues with stakeholders and the public through consultation
- Setting priorities both strategically and locally
- Setting out a stretching but achievable programme of schemes and initiatives
- Establishing new models for delivery
- Backing up aspirations with targets

Delivery

The County Council will pursue its transformation strategy which is marshalling and directing the range of expertise towards making a real and positive impact on service delivery. This strategy includes:

- a) The abandonment effective 1 April 2005 of the Agency arrangements which have subsisted since 1974 and their replacement by new Local Service Agreements (already agreed with ten of the twelve districts/boroughs) ensuring countywide resources can best be targeted at local needs.
- b) A division of the highway network into County Routes (roads of greater than local significance) and Local Roads to complement the core trunk network.
- c) Revised contractual arrangements from 1 April 2006 which simplify accountability and make performance monitoring a greater priority.
- d) Exercising greater influence with external partners including the Department for Transport (Highways Agency and DfT Rail), the Government Office for the East of England, the Train Operating Companies, and bus operators, as well as BAA.
- e) Establishing new mechanisms to cope with changing demands and broader perspectives, for example structuring an appropriate Regional Transport Forum, a local transport board for the Thames Gateway South Essex Partnership and a BAA/Essex/Hertfordshire Partnership.

The County Council acts as a natural focus for delivering Highways and Transportation improvements not only because it is the highways authority, but because it is the strategic delivery body responsible for many of the services which people and organisations rely upon for their day to day needs. The service invests over £100 million annually to maintain and enhance the road network, key infrastructure and essential services such as local buses and street lighting.

Over and above ensuring that Essex people get value for money for each pound spent, or every hour invested by Officers and Members, is the leadership given by the whole cabinet in managing, directing and co-ordinating the resources of all County Council functions. These are varied and include emergency services, strategic planning and working with District Councils on Local Development Documents, and crucially acting as the strategic link with government and regional planning bodies. It also includes the role played in supporting other colleagues in organising and directing transport intensive services such as education and social services – sharing our expertise and savings millions of pounds per annum.

But it is clear that a lot more than effective and efficient use of current resources is required. Firm and clear direction to new developers is essential if we are to build sustainable communities in the right location where public transport has a chance to work from the outset. Thus, a new transport system such as SERT (South Essex Rapid Transit system for the Thames Gateway) could now become the centre piece in releasing development, and in providing a real alternative to car travel; and a BAA/Essex/Hertfordshire partnership could provide a mechanism for delivering funding for land based transport facilities in the vicinity of Stansted Airport.

New partnerships which recognise where the County Council has a publicly accountable role to play in driving forward new initiatives must now be balanced alongside innovative delivery mechanisms that build on private sector skills and resources. Getting this balance right is at the heart of second Local Transport Plan.

Wider Context

Chapter 1 Introduction

Introduction

The Second Local Transport Plan Process

- 1.1 Essex County Council is required by the Transport Act 2000 to produce a Local Transport Plan (LTP). The first LTP covering the period 2000/2001 – 2005/2006 set out a 20 year vision for Essex that would be delivered through successive five year plans. This is the second LTP and covers the period April 2006 – March 2011. It demonstrates how Essex County Council has refined implementation programmes to address local needs through the development of a focused “Area Transport Delivery Strategy” approach. This, the second Local Transport Plan had to be submitted to the Department for Transport (DfT) in March 2006.
- 1.2 Transport is vital to enable people to access the services and destinations of their choice to improve their Quality of Life. The Government requires every local authority to consider Quality of Life issues defined through the ‘Shared Priorities’ that complement the themes outlined in the ‘Future of Transport: 2030’ White Paper. As a result of this Essex County Council has determined five key objectives:
 - Delivering Accessibility to Key Services (Shared Priority);
 - Tackling Congestion (Shared Priority);
 - Promoting Better Air Quality (Shared Priority);
 - Creating Safer Roads (Shared Priority); and
 - Enhancing Maintenance (Locally Identified Priority),
- 1.3 These transport objectives must be set within the context of the 2 overall aims and broader Essex County Council policy issues including:
 - Improving Quality of Life; and
 - Encouraging Economy and Growth,
- 1.4 The size and distinctiveness of Essex requires a sub-regional emphasis. Building upon lessons learnt from the first LTP, five Area Transport Delivery Strategies have been established during the development of the second LTP as the basis for refining the growth and delivery of all future programmes of work. The five areas are based on important local centres, key inter-urban road and rail networks and also reflect the National Growth Agenda outlined by central Government. These areas can be seen in Figure 1.1:

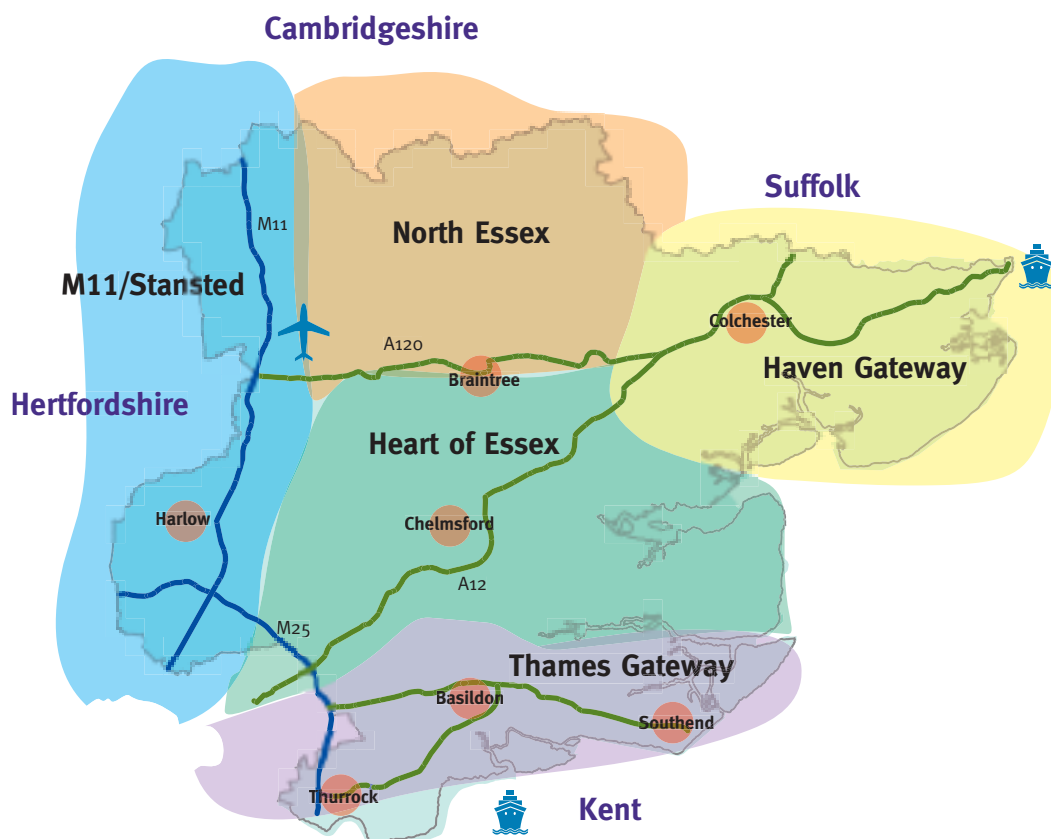


Figure 1.1: The Five Area Transport Delivery Strategies

- 1.5 These strategies represent the major corridors of movement which characterise the County and reflect the key areas identified in the Draft East of England Plan (DEEP).
- 1.6 In order to deliver the vision for transport the County Council has established a robust policy framework that includes the following:
- **Demand Management:** To regulate the use of services or networks including the possibility of road charging, high occupancy vehicle incentives, and increased parking charges.
 - **Reducing the need to travel by car:** To change transport use (e.g. school and workplace travel plans, travel awareness campaigns and marketing strategies) to ensure that solo travelling by the private car is minimised.
 - **Traffic Management Act:** Through the role of the Traffic Manager, the best possible use of new and existing highway infrastructure will be sought to ensure that congestion is managed and public transport is prioritised in the main urban areas.
 - **Information Provision:** To disseminate travel information during or prior to making trips (e.g. travel leaflets, real time transport information and driver information systems) in order to allow sensible travel choices to be made.



- **Infrastructure:** Where appropriate, additional infrastructure will be sought to cater for the huge levels of growth planned for Essex. This might include, for example, additional cycle tracks, bus priority facilities, and new carriageways where necessary, especially serving inter-urban routes and access to ports and airports.
- **Land Use:** Influencing development to provide for essential travel movements e.g. sustainable communities and minimising transport impacts, parking standards and home zones, creating development levies and/or maximising Section 106 (of the Town and Country Planning Act 1990) contributions from developers.

- 1.7 To assist implementation of this framework, the County Council has recognised the Highways and Transportation section and introduced a new performance management culture which has provided a sharper focus for future scheme development and delivery, and ensured that value for money is secured for customers.
- 1.8 As a result of this new structure, a constructive environment has been created to critically challenge and review project delivery. This ensures that schemes are rigorously assessed for the optimum outcomes which secure value for money, including:
- The Area Offices delivering more schemes and initiatives using countywide resources to best meet local needs.
 - A robust performance management approach through a challenge and review of LTP schemes to ensure schemes meet identified targets.
- 1.9 To ensure that the County Council remains on track to meet the overall aims and objectives of the second LTP, a number of mandatory and local performance indicators have been identified to regularly monitor and assess progress. Mandatory indicators have been defined by the DfT and assist in monitoring progress against central and local government's four shared priorities. Non-mandatory indicators will also be used for locally important priorities. More detailed explanations of performance management can be found in Chapter 8.
- 1.10 To ensure that the activities, schemes and initiatives implemented hit the targets identified in the Local Transport Plan, Trajectory Analysis has been developed. This process ensures that each target has a trajectory, listing key actions that will assist in the delivery of the target, accompanied by details of barriers to delivery and the steps the County Council must take to address them.
- 1.11 In addition to detailed monitoring the County Council delivers value for money through a rigorous service and financial planning process which:
- Ensures priorities and resources are aligned;
 - Reduces costs and improves service quality;



- Requires service managers to examine potential efficiencies;
- Analyses performance indicators relating to service quality;
- Analyses the impact of proposals on customers before the service plan and budget are agreed; and
- Companies and benchmarks with other comparable Authorities where appropriate.

Developing the second LTP in partnership

- 1.12 The second LTP has not been developed in isolation. It is the product which has emerged after two years of detailed and extensive consultation and participation which has helped characterise and influence the way in which the County Council will deliver transportation across Essex.
- 1.13 Essex County Council consulted with its stakeholders and the community as part of an inclusive approach to be able to understand the real transport issues for people in Essex. This information is essential in developing a realistic plan and the County Council improve Quality of Life.
- 1.14 As part of its commitment to effective public consultation, Essex County Council has worked alongside other European countries as part of a project called GUIDEMAPS. By providing the County Council with the appropriate tools, more effective communication with the stakeholders and the public has been achieved.
- 1.15 Figure 1.2 below gives details of the stages of consultation that contributed to the development of the Second LTP.



Consultation and the Stages of LTP Development

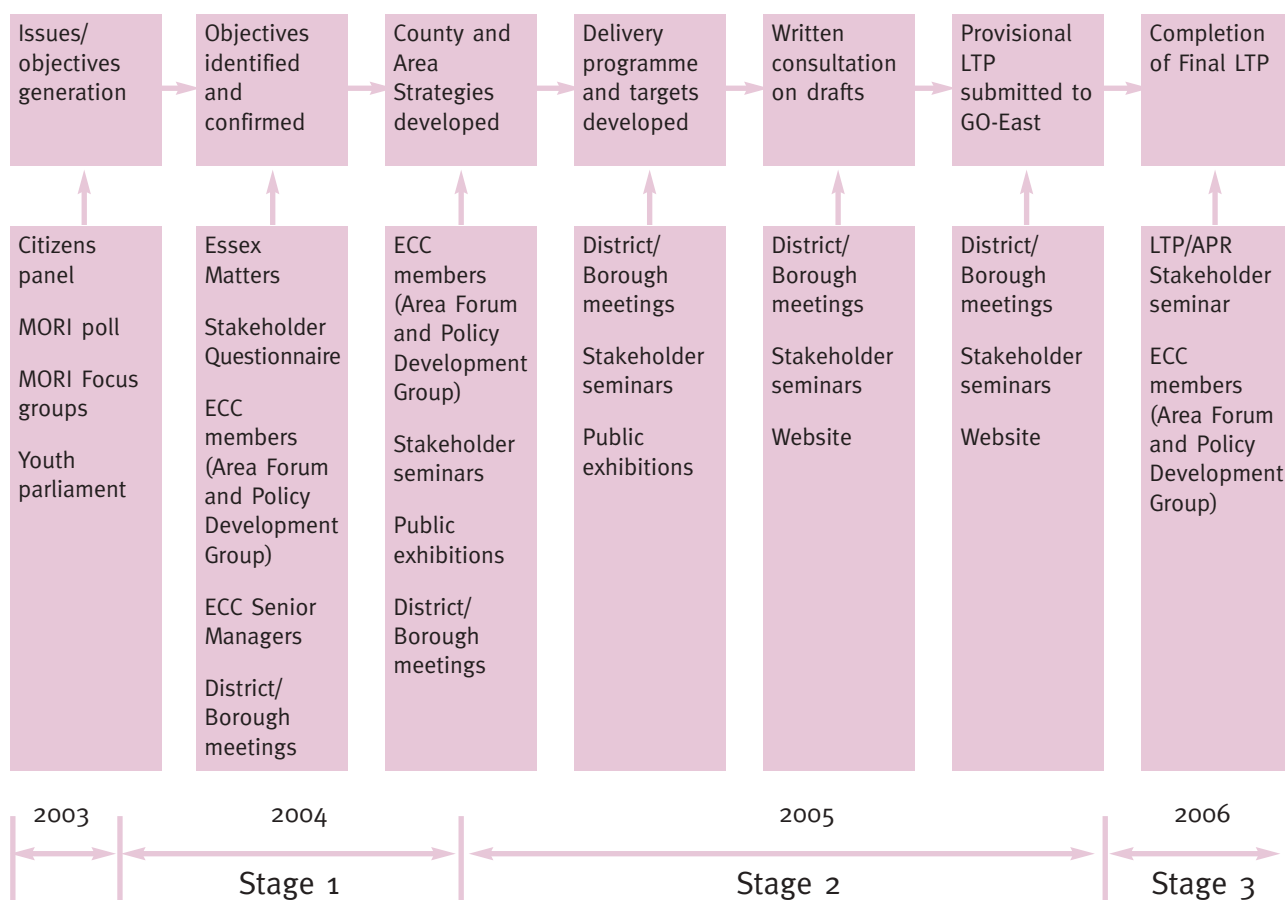


Figure 1.2: The second LTP Consultation Process

Stage 1: Issues Generation (2002 to 2004)

- 1.16 The first phase of consultation shaped the second LTP by enabling a draft set of objectives to be developed and an approach to delivering these objectives through the draft area strategies to be identified in consultation with numerous groups. The outcome of these consultations drew attention to numerous topics that could be addressed within the second LTP that caused concern for members of the public.
- 1.17 The types of activity that characterised early LTP development included consulting the UK Youth Parliament, Essex Citizens Panel Survey conducted by MORI, the 2003 Annual Progress Report & LTP Stakeholder Seminar and the Essex Partnership Meeting. The outcome of these consultations identified that:
- Public transport should be improved in terms of accessibility for those with mobility impairments and the provision and quality of shelters and travel information.
 - Congestion was getting worse, with its impacts on the environment increasing (Essex Citizens Panel Survey 2003).



- Safety should be addressed including personal safety and not just road safety (Essex Partnership 2004).
- Maintenance and condition of roads and footways needs to be improved (Public Transport Survey 2004).
- Consideration should be given to more demand responsive transport in rural areas (Annual Progress Report & LTP Stakeholder Seminar 2003).
- An area/town based approach should be developed.

1.18 A subsequent consultation involved the stakeholders and general public and provided them with the opportunity to either agree or disagree with the objectives of the LTP and to help identify if the County Council was taking the right approach. All comments were considered in shaping the final objectives and priorities for the County Council.

Stage 2: LTP Preparation

1.19 This phase took place after the draft strategies for each area had been drawn up. The aim was to involve stakeholders and then the general public to test the strategies against their desires and aspirations for transport in the County.

1.20 In total over 500 stakeholders from throughout the County were invited to participate. They were divided into strategic (i.e. those with a countywide remit) and local (i.e. those whose interests lie in the immediate district or area).

1.21 Five facilitated workshops were held, one in each of the area strategy locations, to look at the mandatory indicators identified in the LTP Guidance published by DfT (December 2004), and to identify schemes which could feasibly contribute to the achievement of the targets. The key schemes which the stakeholders felt would contribute to the mandatory targets included:

- Road Safety Schemes: Education, training and publicity, speed reduction, and enforcement.
- Accessibility: More local provision of healthcare facilities, greater cross authority working, more demand responsive transport, compulsory travel plans and more innovative transport solutions to discourage travel by car.
- Public transport: Better service and timetable integration, bus priority measures and improved publicity and information.
- Traffic growth and congestion: Junction improvements and engineering, travel plans for schools and employers, higher quality public transport services.
- Cycling: Education and training, cycle facilities at transport interchanges.
- Journeys to school: Encourage walking buses and 'park and stride', compulsory school travel plans, and improved public transport.



- 1.22 The outcomes of these workshops have shaped the works programme and justified and assisted the development of the trajectories for each indicator.
- 1.23 Following on from these stakeholder meetings, a series of local High Street exhibitions enabled the general public to contribute to the LTP process as well as complete questionnaires, that were returned by over 6,500 Essex residents. This enabled further revision of the LTP plan to reflect the desires of Essex residents. (See Table 1.1.)

Stage 3: LTP Assessment

- 1.24 Following the decision letter received from the DfT in December 2005 a detailed assessment of the provisional LTP was supplied which outlined a number of areas for the County Council to improve upon. A detailed action plan was developed in order to address these areas. In addition, a seminar was held with stakeholders in January 2006 targeted at examining how the County Council could take forward specific points raised in DfT feedback and to consider how to continue to deliver a better service in the future.
- 1.25 Overall, the County Council will continue to consult on all of its activities, of which transport is just one. Ongoing transportation-focused engagement includes yearly Annual Progress Report seminars, annual public transport customer satisfaction surveys, and project-specific consultation such as the A120 & A130 post by-pass measures and the South Essex Multi Modal Study.



Consultation Summary

Shared Priority	Output from Consultation	LTP Response
Congestion and Air Quality	Over 72% of respondents felt that encouraging bus and rail use was the most successful way to ease congestion	Improving public transport is an essential part of the congestion strategy
	57% identified park and ride sites accessing major towns	New park and ride sites have been identified in this plan and Essex's first park and ride site opened in Chelmsford Spring 2006
	Providing driver information was a further improvement that stakeholders considered important (41%) <i>Note: Respondents were asked to pick top three</i>	Real time passenger information for bus users and other telematic equipment will be introduced along radial routes into major towns, to assist drivers to make informed choices about their journeys
Accessibility	Stakeholders stated that providing bus services for those without access to a car (59%) or those living in rural areas (54%) should be given priority funding	The provision of Community vehicles, such as Dial a Ride, will replace more traditional bus services. Community schemes offer more flexibility services that better meet rural residents needs without high financial dependence on County Council funds
	Around 35% of stakeholders identified problems accessing hospitals <i>Note: Respondents were asked to pick top three</i>	Improving accessibility to healthcare services, particularly for those without access to a car is essential to delivering Area Strategy Accessibility Action Plans – see full accessibility strategy
Safety	71% of respondents felt the biggest safety risks were drivers under the influence of alcohol. The second highest safety issue was to tackle speeding (61%) Improving road safety for child pedestrian was also identified as a high priority area (55%) <i>Note: Respondents were asked to pick top three</i>	Safety Camera Partnership
Environment and Quality of Life	56% selected appropriate planning of new developments (near public transport and good walking and cycling routes) as one of the most effective ways to improve the environment and health of their area	The County Council's Development control policies sets out clear guidance to deliver development which is high quality and located in the most appropriate and sustainable locations. These are integral to the delivery of the LTP
	Nearly 50% of stakeholders chose promotion of healthier modes of travel such as walking and cycling <i>Note: Respondents were asked to pick top three</i>	Walking and cycling improvements are essential to the success of this plan and contributes to a wide range of LTP objectives including congestion, accessibility, air quality and quality of life

Table 1.1: Consultation Table Summary



Chapter of LTP	Input from consultation	Next stages
Challenges and Opportunities	Problems, needs and issues raised and quantified wherever possible (Citizens Panel, MORI poll and focus groups, youth parliament)	Benchmarking of key problem areas in terms of identification of data sources and monitoring
Transport Strategy	<ul style="list-style-type: none"> Relative importance of objectives and aims taken directly from issues raised by the public and stakeholders (Essex Matters and stakeholder questionnaires) Strategy themes and toolbox ideas taken from emerging areas of interest/importance (Highways & Transportation Policy Development Group, Area Forums, stakeholder seminars, Senior Managers Forum) 	Completion of daughter documents such as Bus and Rail strategies and the Road Safety Strategy
Area Transport Delivery Strategies	Scheme types, initiatives, priorities and emphasis tailored for geographic relevance (Highways & Transportation Policy Development Group, Area Forums, regular District/Borough Councils meetings, stakeholder seminars, and public exhibitions)	Coordinated programmes of work to reflect local needs and circumstances
Delivery Programme	Individual schemes developed and emphasis of programme emerged (regular District/Borough Councils meetings and public exhibitions)	Design and prioritisation of schemes for full delivery plan
Targets	Identification of targets needing to be achieved. Definition of schemes and initiatives to realistically help to achieve these targets (stakeholder seminars and public exhibitions)	Full trajectory analysis and links to programmes of expenditure and implementation plan. Ongoing consultation and feedback through future Annual Progress Reports

Table 1.2: How Consultation has influenced the second LTP



- 1.26 The LTP has been developed with the full and active participation of all the relevant tiers of local Government and associated departments or divisions within the County Council. In addition, the LTP policies and schemes with impacts on the strategic transport networks have been developed with other responsible agencies, such as the Highways Agency, DfT Rail, freight and public transport operators.

Cross Border Working

- 1.27 A major feature of the development of the LTP has involved closer working, collaboration and discussion with neighbouring authorities. This has been taken forward as follows:
- Sub-regional aspects: transport groups have been set up in the Thames Gateway, Haven Gateway and in the Stansted M11 corridor. These groups commission study work and collaborate on individual projects. Good examples of this include the inter-agency working on establishing a master plan for Jaywick, the establishment of a Thames Gateway South Essex Transportation Board (described in more detail below) to drive forward projects such as the Sadlers Farm Improvement and the development of South Essex Rapid Transit (SERT) and the Thames Gateway modelling framework. In addition, joint working has taken place on the modelling of various transport scenarios for the Harlow area.
 - East of England: The East of England Directors of Environment and Transportation (EEDET) groups, including the LTP Working Group and the Monitoring Working Group, have worked in partnership on matters concerning regional transport, and the sharing of best practice on LTPs, monitoring methodologies and data streams.
 - Across the East of England, the local transport authorities regularly meet to discuss the needs and aspirations of the Region in relation to Accessibility Planning through the Regional Accessibility Planning Group. In order to ensure consistency and to share best practice a representative from the Government Office for the East of England is invited to discuss with the officers from the local authorities how to develop appropriate local and regional strategies to address the issues and opportunities in relation to accessibility outcomes.
 - The Thames Gateway South Essex (TGSE) Board and the three local transport authorities (Essex County Council, Southend-on-Sea Borough Council and Thurrock Council) have come together to form a new Transportation Board in order to focus resources and deliver essential transport infrastructure to support development growth. For more information on the Thames Gateway South Essex (TGSE) Transportation Board see Chapter 2.



- Neighbouring Authorities: Strategic and local cross-border issues have been identified and taken forward between Essex and Southend-on-Sea, Thurrock, Suffolk, Cambridgeshire, Hertfordshire and Transport for London. Details of these are given in the Area Transport Delivery Strategies (Chapter 6).
- Local Strategic Partnerships: Liaison between Essex County Council and its District/Borough Councils has been undertaken in order to identify and understand the linkages between the LTP and local transport issues.
- Local Development Document Preparation: The County Council has also set up working parties to assist District and Borough Councils in the preparation of the transportation elements of their Local Development Documents.

1.28 The entirety of this engagement strategy has enabled the County Council to establish a two-way process which provides the opportunity for all stakeholders and the public to understand the issues faced in Essex, and vice versa. A summary of all the consultation activities is in the Appendix.

- Strong partnership working between the three Highway Authorities within Thames Gateway South Essex (through development of their LTPs and the TGSE Business Plan for Transport (see Chapter 2) has provided the opportunity for effective cross-boundary working. The three authorities in the TGSE area (Essex County Council, Southend-on-Sea Borough Council and Thurrock Council) are working closely together to develop joint approaches to tackle accessibility issues. Many of the key service areas, such as education, health and employment have catchments which do not adhere to administrative and/or transportation boundaries. This means that cross-boundary interaction is essential at all levels.
- Improving accessibility will also be a key challenge in the TGSE area, which will be subject to significant development pressures and growth opportunities. Together, the three local highway authorities are jointly tackling these challenges to ensure that the accessibility needs of residents and visitors are fully addressed. The impacts of the Draft East of England Plan, and growth of the Thames Gateway on changing travel behaviour, are being considered as part of improving accessibility.
- The East of England authorities have joined together and developed a co-ordinated approach to accessibility planning through the establishment of an East of England Region Accessibility Planning Forum. The role of the Forum is to provide a mechanism to share information and experiences relating to accessibility planning. This assists local authorities across the Region to take a consistent approach whilst recognising different local issues and priorities. Wherever appropriate the partnerships will employ joint cross border working to develop accessibility planning solutions.



Corporate Working (Case Study)

Within the County Council there are over 120 strong internal working links providing connectivity between all the service areas. The development of the LTP has been carried out corporately within the context of all other service activities. This is demonstrated by the inclusion of a transport workshop at the November 2004 Senior Managers Forum that comprised of over 150 County Council managers with a collective responsibility for over 40,000 employees. As a direct result of this the County Council has now formally adopted transport objectives, such as congestion relief, as an integral element of every service activity. In addition each Senior Manager must reflect these transport objectives within their individual performance management plans and goals.

As part of an increasing shift to a performance led culture throughout the organisation, a new corporate plan has been developed that establishes a three year action plan with associated targets for each Portfolio Holder and Senior Manager. Four strategic objectives were developed:

1. Ensuring **service improvement**
2. Strengthening **community leadership**
3. Enhancing the **reputation of Essex**
4. Guaranteeing **value for money**

These objectives combine with the key priority that emerged from listening to our customers and giving them choice and control as set out in the Essex Partnership. To support these objectives 27 priorities have been developed to address local needs and priorities. For Highways and Transportation there are four key priorities which contribute to the strategic objectives of the Corporate Plan these include:

Tackling Congestion: through measures such as improving reliability of journey times on key routes, working with schools to reduce the impact of the school run, introducing park and ride schemes, and promoting increased cycling and walking (refer to page 133 for detailed information on tackling congestion).

Improving Road Maintenance: through developing initiatives such as a new maintenance regime and the committal of an extra £45 million, developing a new maintenance strategy, making safety and passenger transport improvements when maintenance work is carried out and introducing new contractual arrangements to achieve better value for money (refer to page 164 for detailed information on improving maintenance).

Creating Safer Roads: through measures such as focusing reducing the number of more serious casualties, prioritising sites by the frequency of accidents where the road environment is the primary problem and combining education and enforcement measures (refer to page 157 for detailed information on creating safer roads).

Encouraging the use of passenger transport: through measures such as increasing the frequency reliability and attractiveness of bus services, providing an hourly bus service in urban areas from 7 am to 7 pm, targeting improving bus services in areas with high levels of congestion, rolling out more real time information and simplifying bus pricing. (refer to page 120 for detailed information on encouraging bus travel).



Impact Assessments of the second LTP

1.29 Transport impacts on all our lives as well as the built and natural landscapes. In order to ensure that the County Council is planning in an inclusive way three important exercises have been carried out: the Strategic Environmental Appraisal (SEA), the Equality Impact Assessment (EIA) and Rural Proofing.

1. Strategic Environmental Appraisal (SEA)

1.30 This is a method of formally documenting the evaluation process that is being undertaken to consider and report on the likely significant effects of the LTP on the natural, built and historic environments, in accordance with the requirements of the European Directive 2001/42/EC. The objective of the SEA is to provide a high level of protection of the environment and to contribute to the integration of environmental considerations into the preparation and adoption of plans. This rigorous environmental assessment of strategy options aims to promote more sustainable development.

1.31 The SEA process comprises the collation of baseline information, the prediction of potential environmental effects, the identification of mitigation measures and strategic alternatives (and their effects), the formal documentation of the findings and the monitoring of the actual effects of the plan through its implementation. The SEA has been carried out alongside the development of the LTP by a panel of environmental and transportation officers to ensure the full integration of the process into the improvement of the LTP. The SEA is an independent document which, although published separately, should be read in conjunction with this plan (www.essexcc.gov.uk – under “Travelling”, then “Transportation and Road Planning”).

1.32 The SEA influences the LTP by interrogating the choices made within transport planning. It ensures that a cost/benefit analysis is conducted whereby the costs extend beyond financial costs to include environmental, social and cultural costs. Six specific recommendations have been made within the SEA that have influenced this LTP:

- 1) Careful route planning and the provision of infrastructure to protect the natural habitat, including deer fencing and wildlife tunnels.
- 2) Encouraging sustainable modes of transport to cut congestion and emissions.
- 3) Using local materials to reduce product mileage and reinforce local character.
- 4) Use high quality materials to preserve street character.
- 5) Reduce waste from construction sites or re-using it.
- 6) Install CCTV cameras and lighting to reduce the fear of crime.



2. Equality Impact Assessment (EIA)

- 1.33 An Equality Impact Assessment has been carried out to identify likely significant effects of the LTP on equality issues, most notably race and disability, in accordance with the requirements of the Race Relations (Amendment) Act 2000. An initial assessment has been carried out to evaluate any potential areas of inequality in transport provision as set out in the supporting policies and strategies of the LTP, and to assess the impact of such inequalities on the population. The initial EIA work can be found in the Appendix. Progress will be reported in the first Progress Report. In addition the issues identified in the EIA will be continually monitored during the life of the LTP.

3. Rural Proofing:

- 1.34 This is a method of formally documenting the evaluation process that is being undertaken to consider and report on the potential impacts of the LTP on rural areas, as laid-out in the Rural White Paper (November 2000). The rural proofing process gives consideration to the impact the County Council's decisions or actions will have on a rural community, economy or environment that would be detrimental to an urban setting.
- 1.35 The process involves assessment against the Countryside Agency criteria to identify any potential significant differential impacts in rural areas and to consider what mitigations might be made to fit rural circumstances.
- 1.36 The initial work on rural proofing has been very helpful and can be found in the Appendix. A full assessment is being carried out in line with the standard regional framework for delivering rural polices which is currently under development. The issues identified by the rural proofing process will be continually monitored throughout the life of the LTP.
- 1.37 These pieces of work have helped to develop the range of strategic options open to the County Council in developing its transportation strategy. In addition, these exercises have helped assess the broader impacts that the LTP will have on the environment, rural areas and equality.

Assessment

- 1.38 The County Council must show how improvements in a number of key areas have been achieved through the second LTP. These include:
- The Wider Context: showing how Essex interacts with its neighbouring authorities, the Eastern Counties as a whole, Kent and London;
 - Analysis of Evidence: through examining information and data, appropriate consultation and structured feedback in order to better meet the future challenges;



- Value for Money: guaranteeing how schemes meet future needs practically and in a timely and appropriate fashion;
- Performance Reporting: demonstrating the robustness of targets and indicators selected; and
- Priority Outcomes: showing how improvements to shared priorities and Quality of Life will be delivered.

1.39 Essex County Council is confident it has taken the necessary steps to ensure that all of the above elements are incorporated into the LTP.

The Structure of the second LTP

- 1.40 The following sections of this LTP are set out to address the key requirements expected by the DfT:
- Section 2 describes the regional and national context within which the Essex LTP is set;
 - Section 3 illustrates the character of Essex that determines the nature of the demand for travel within the county;
 - Section 4 considers the current and emerging challenges and opportunities that the Council will face over the period of this LTP and beyond;
 - Section 5 explains the Essex transport strategy, including our objectives, that has been developed to address the problems we face and make the most of the opportunities;
 - Section 6 describes the area delivery strategies for each of the five areas within Essex we have defined for taking the strategy forward;
 - Section 7 sets out the delivery programme of actions to achieve our objectives, including detailed descriptions for each area of Essex; and
 - Section 8 reports the targets against which progress will be measured and the performance management system to ensure successful delivery.



The Next Steps

- 1.41 Progress towards achieving our objectives over the life of this document will be reported in Annual Progress Reports (APRs). The next APR, to be submitted to DfT in July 2006, will performance over the life of the first LTP from 2000/01 to 2005/06. Assessment of our performance by the Government for the East of England and the DfT during 2006 will inform the future funding allocations for second LTP. From 2006 it is expected that APRs will only be required every other year. This second LTP includes several documents that elaborate various aspects of the transport planning process and proposals in more detail. These are included in appendices to this LTP but may be revised over the next five years as circumstances change.



Wider Context

Chapter 2 Regional and National Context



Regional and National Context

Introduction

- 2.1 Transport is essential to the way we live and is vital to encouraging a strong economy. However, transport comes at a cost, whether financial, social or environmental. Decisions taken now will have an impact for decades to come, and it is therefore vital for the second LTP to take a strategic geographic and long-term view, as well as contain a short-term implementation programme.
- 2.2 Essex is located in the East of England and lies to the north east of London. It shares borders with the County authorities of Hertfordshire, Cambridgeshire and Suffolk; the unitary authorities of Southend-on-Sea and Thurrock; and a number of London Boroughs. It has a close affinity with and a similar profile to Kent, the Dartford Crossing bridge acting as a key link between the two. Essex is however unique within the East of England, with multiple Regional Interchange Centres (RICs) and a large rural area similar in size to Suffolk meaning that transportation planning is uniquely complex in the Region and therefore requires careful consideration. The map below (Figure 2.1) shows the geographic setting of Essex within the East of England.



Figure 2.1: The Geographic Setting of Essex



- 2.3 Essex has a unique sense of place and plays a critical transport role for the whole of the East of England due to its proximity to London. Its transport infrastructure enables access to the key international gateways of Stansted, Harwich, Felixstowe in Suffolk and to the future proposed Shellhaven development. It also contains the critical national arteries of the M11 and M25 motorways. The M25 also provides a major link to the Channel Tunnel and the Kent ports.
- 2.4 The location and layout of Essex has resulted in complex travel patterns that have been examined and will be taken into consideration both now and in the future, to ensure that the County Council offers real transport choices to the public. The sheer size and impact of the County's strategic location within the local, regional, national and international economic markets has a major effect on travel demand and the second LTP tries to address present and future needs.
- 2.5 Demographic changes mean we live longer and in smaller households, which, combined with a strong economy and increased affluence, has resulted in a greater desire to travel further and more often, and as a result traffic is currently growing at 2% per annum in Essex. Increasingly, people change jobs more often than changing homes, triggering longer and more complex commuting patterns. In addition, people are more willing to live further away from employment, and travel longer distances, in exchange for a better quality of life. The impact of these cumulative changes will be further congestion and deterioration in air quality unless real choice and alternatives become possible and are made available.
- 2.6 Table 2.1 shows the National, Regional and Local policies that provides the framework for the second LTP.

The National, Regional and Local Transport Policies

Policy	Significant Key Objectives
National	
<p>Transport Act (2000) This sets out the national legal framework through which the Essex LTP must deliver its policies and programmes</p>	<p>All of Essex County Council's policies and programmes will adhere to the legal framework set out in the Transport Act (2000)</p>
<p>Transport White Paper (The Future of Transport: A Network for 2030) The Government White Paper outlines the opportunities and challenges that exist within transport. Essex's LTP will be directly influenced by this document</p>	<p>By taking into account the national aims of the Government, Essex hopes to create an integrated, sustainable transport network that preserves our economic, social and environmental well-being, all of which contribute to a better quality of life:</p> <ul style="list-style-type: none"> • Freer flowing local roads • More reliable buses enjoying more road space • More demand responsive transport • Making services more accessible to improve travel choice • Promoting school travel plans, workplace travel plans and personalised travel planning • Encouraging walking and cycling • Better management of road networks • Using technology to keep people better informed
<p>National Sustainable Growth Areas The Thames Gateway area and the London-Stansted-Cambridge-Peterborough corridor have been identified as National Sustainable Growth Areas. Therefore Essex will meet the needs of these growth areas by identifying the best ways to aid development sustainably</p>	<p>To help deliver sustainable communities, Essex recognises that the following objectives must be met:</p> <ul style="list-style-type: none"> • To offer good accessibility and good services • To reduce the need to travel by providing a better balance between homes and job opportunities • To implement more sustainable modes of transport • Ensure these objectives are sensitive to the environment • To create a safe and inclusive way of life



The National, Regional and Local Transport Policies *continued*

Policy	Significant Key Objectives
<p>National – continued</p>	
<p>British Medical Association The British Medical Association has assessed the impact of transport upon health. They have shown the adverse impact of vehicle emissions, traffic noise, increased congestion and social isolation, despite the positive effects of driving as highlighted by the RAC Foundation. Health issues including the problems of obesity due to inactivity have been highlighted as costing £10bn annually</p>	<p>Essex has implemented the following strategies that aim to improve health:</p> <ul style="list-style-type: none"> • PRoW Maintenance Policy: This will ensure that PRoWs remain accessible to walkers, cyclists, horse-riders and those using other sustainable modes of transport, as well as mobility impaired users • Essex Cycling Strategy: To encourage people to cycle to work and school, as well as taking shorter trips by bicycle, and increasing cycling for leisure • Essex Walking Strategy: To encourage people to walk to work and school, with particular emphasis on younger school children forming part of a walking bus
<p>Central-Local Shared Priority for Transport This is a result of an agreement between central Government and the Local Government Association. The purpose is to ensure that each level of government is clear about the overall common goal and what they are all trying to do to improve transport</p>	<p>Improving access to jobs, particularly for those most in need, in ways which are sustainable.</p> <ul style="list-style-type: none"> • Improved public transport • Reduced problems of congestion, pollution and safety
<p>Planning Policy Guidance 13: Transport The Government has published a series of guidelines and statements that set out its policies for different aspects of land use planning in England. This helps local planning authorities take a consistent approach to land use and transportation development. Development plans at the regional and local level need to be consistent with these</p>	<ul style="list-style-type: none"> • Reduce the need to travel • Integrate planning and transport • Promote more sustainable travel choices, such as walking, cycling and public transport

The National, Regional and Local Transport Policies *continued*

Policy	Significant Key Objectives
<p>Regional</p>	
<p>Draft East of England Development Plan and Regional Transport Strategy 2001/21 The East of England Regional Assembly has developed a draft East of England Plan that has been subjected to an Examination in Public. This Plan sets out a draft Regional Spatial Strategy to guide development in the East of England, including policies on spatial, economic and transport development. It provides the framework for local authorities to produce more detailed strategies and investment plans for their areas, and it provides an overview of many issues that have implications across the region</p> <p>The Regional Transport Strategy describes the policies and investment proposals that seeks to serve the Regional Spatial Strategy. The Regional Transport Strategy has a key role for the Local Transport Plan through setting out the long-term planning and policy framework, and identifying regionally and sub-regionally significant investment proposals</p>	<ul style="list-style-type: none"> • Reduce the need to travel • Make travel more sustainable and improve opportunities to access services • Promote rail freight • Widen travel choice • Achieve a sustainable relationship between jobs, homes and services • Improve safety and the environment • Ensure efficient use of the transport system



The National, Regional and Local Transport Policies *continued*

Policy	Significant Key Objectives
<p>Local</p>	
<p>Essex Corporate Plan This document outlines the key pledges in the context of the County Council's overall agenda for the next four years. Both the public and partner organisations were consulted about the aspirations for Essex. In this publication the Council's spending plans and targets were published for improving services</p>	<p>The aim of the County Council is simple: to make Essex a better place to live and work. In pursuing this aim, The County Council, in 2003, reaffirmed and renewed the wording of the five pledges made:</p> <ul style="list-style-type: none"> • Get Essex moving again, tackling road congestion and improving public transport • Keep your council tax as low as we can despite lower increases in Government grant • Make it easier for teachers to teach • Give the elderly the support they need to stay in their own homes • Resist national plans for excessive new housing and airport expansion in Essex <p>In addition, the County Council want to:</p> <ul style="list-style-type: none"> • Improve the environment, and • Raise standards and extend opportunities for our children and young people
<p>Shaping the Future of Essex: A Community Strategy 2004-2024 A requirement of the Local Government Act 2000 was for local authorities to demonstrate community leadership by working with other key agencies to develop and deliver a community strategy for improving social, economic and environmental well-being. This enables all agencies to have long term plans towards achieving the same local goals and aspirations. The process is managed by a multi-agency strategic partnership with a membership that embraces all local authorities in Essex; health and learning providers, police and other key agencies, including the voluntary and business sectors</p>	<p>The Community Strategy sets out what the people of Essex have told the County Council they want for their futures, and what action we propose to take to make it happen. The objectives are:</p> <ul style="list-style-type: none"> • Being part of the community • Feeling safe • Being healthy • Creating opportunities • Getting around • Being served well and fairly • Conserving our environment • Having fun

Table 2.1: The National, Regional and Local Transport Policies



National Policies and Context

- 2.7 The Transport Act (2000) sets out the national legal framework through which Essex County Council's LTP must deliver policies and programmes. Essex County Council is required to consider transport within the wider context of the Local Government Association's 'shared priorities', whereby transport is central to accessing everyday services. The second LTP is consistent with national policies for transport, aviation and ports.

Transport White Paper (The Future of Transport: A Network for 2030)

- 2.8 The Government has stipulated its aims for the development of transport over the next 30 years in The Future of Transport: a Network for 2030¹. In this White Paper, the Government identifies the opportunities and challenges that exist within transport. These will directly influence the decisions made about the future of transport in Essex.
- 2.9 The second LTP seeks to achieve a sustainable approach for all modes of transport, by being consistent with the framework in the Transport Act 2000, and working closely with recently empowered Local Authorities to achieve best value outcomes. Due to the unique make-up of Essex, both a micro and macro approach is necessary, requiring smaller scale schemes that have a local impact to be progressed as well as major schemes that will certainly have a national impact, such as those concerning the development of the M11 near Stansted Airport. Therefore, taking into account the national aims of the Government, Essex County Council will create an integrated, sustainable transport network that preserves the County's economic, social and environmental well being, all of which contribute to a better quality of life.

Sustainable Communities

- 2.10 Two of the four National Sustainable Growth Areas in the United Kingdom impact on Essex and, further to these, Growth Point status is being sought for the Colchester and Haven Gateway area. The second LTP must therefore support the initiatives for the parts of the Haven Gateway and Thames Gateway areas located in Essex and the London-Stansted-Cambridge-Peterborough corridor by delivering transport improvements which help to create and deliver Sustainable Communities. Sustainable Community planning aims to meet the diverse needs of existing and future residents in ways which are sensitive to the environment and contribute to a higher Quality of Life. Sustainable Communities must be safe and inclusive, well planned, and offer equality of opportunity and good access to services for all. They should minimise the need to travel, reduce longer range travel by providing a better balance between homes and local job opportunities, and also encourage travel to be undertaken by more sustainable modes and over shorter distances.

¹ The Future of Transport: A Network for 2030, Department for Transport. July 2004.



- 2.11 Essex County Council is at the forefront of delivering communities which people want to live and work in, and has worked in partnership with the Commission for Architecture and the Built Environment (CABE) to produce the Essex Design Guide Urban Place Supplement, whereby “good planning ensures that we get the right development, in the right place and at the right time” (National Planning Policy²). By trying to ensure that new development is located where people can have genuine choice of transport, the County Council can promote real alternatives and transform how people access everyday services. The new Urban Place Supplement focuses on raising the quality and sustainability of new and high density development in order to ensure that new homes in Essex are of the highest possible design quality and ‘liveable’. As a result of this close partnership working the Essex Design Initiative was awarded Silver for the Chartered Institute of Public Relations Pride Awards 2005/06. In addition Essex County Council was named as a Design Champion ‘for the pioneering work of the Essex Design Initiative’. To ensure continuous development, communities are surveyed to see how development can be improved to further enhance sustainability, accessibility and the use of public transport.
- 2.12 National policies also recognise the inter-relationships between Transport and Health. The British Medical Association’s³ assessments of the transport impacts on health have shown the adverse impact of vehicle emissions, traffic noise, increased congestion and social isolation, despite the positive effects of driving documented by the RAC Foundation⁴. Health is also linked to transport through the increase in physical activity of sustainable transport modes such as walking and cycling.
- 2.13 Physical activity contributes not only to overall well being, but is also essential for good health. The annual cost of physical inactivity and obesity in England exceeds £10 billion⁵. Promoting physical activity is a cross-government priority whereby the health sector must work with the County Council to promote, rather than inhibit, walking and cycling activity for transport and for recreation.

Regional Policies and Context

- 2.14 The County Council’s second LTP has been prepared against the background of emerging national and regional growth agendas and sustainable policy development at the East of England regional level. This latter approach is embodied in “Sustainable Futures” – the Integrated Regional Strategy (IRS), the Draft East of England Plan (DEEP), the draft Regional Spatial Strategy incorporating the Regional Transport Strategy (RTS), and the Regional Economic Strategy (RES).

² Planning Policy Statement 1: Delivering Sustainable Development, PPS1, ODPM, 2005.

³ Road transport and health, British Medical Association, Board of Science and Education. 1997

⁴ RAC Foundation Press Release, 24 January 2005.

⁵ Evidence on the impact of physical activity and its relationship to health (£8.2 billion). A report from Sir Liam Donaldson Chief Medical Officer, Department of Health, April 2004.

Regional Spatial Strategy

- 2.15 The draft Regional Spatial Strategy (RSS), setting out a planning and development framework for the Region to the year 2021 has been prepared by the East of England Regional Assembly and recently progressed through the public examination process. The key RSS objectives include:
- Minimising the environmental impact of travel by reducing the need to travel, encouraging the use of more environmentally friendly transport modes, and widening choice of modes;
 - Delivering more integrated patterns of land use, movement, activity and development, achieving a more sustainable balance between workers and jobs;
 - Improving social inclusion, access to employment and services, and leisure and tourist facilities among those who are disadvantaged;
 - Increasing the regeneration and renewal of disadvantaged areas;
 - Sustaining and enhancing the vitality and viability of town centres; and
 - Ensuring that infrastructure programmes, including transport, will meet current deficiencies and development requirements.
- 2.16 In addition to these objectives, the key policy principles on which the Regional Spatial Strategy is based that are of relevance to transportation in Essex are:
- Fostering and developing European and inter-regional links;
 - Recognising the impact of London's "world city" role;
 - Addressing the issues of major economic growth focused on Stansted Airport and the M11 Corridor and the need for regeneration, mainly at Harlow but also in the Lee Valley area;
 - Allowing suitable development in the key London fringe towns ("London Arc"), redressing unsustainable commuting patterns by creating a closer relationship between homes and jobs whilst protecting Green Belt areas;
 - Pursuing a major role for key centres throughout the region including Colchester and Chelmsford; and
 - Addressing regeneration areas including Thames Gateway South Essex, Harlow, Harwich and Clacton-on-Sea.

Regional Transport Strategy

- 2.17 The Regional Transport Strategy (RTS) provides the wider context for the development of this LTP. The RTS element of the Regional Spatial Strategy builds upon the above aims, adding objectives to reduce the transport intensity of economic activity including freight, protecting and enhancing the natural, built and historic environment and improving safety and security.



- 2.18 The key features of the Regional Transport Strategy in relation to Essex are:
- The designation of four Regional Interchange Centres (Basildon, Chelmsford, Colchester, Harlow);
 - The importance of the ports of Shell Haven and Bathside Bay;
 - The importance of strategic public transport movements; and
 - The importance of strategic road and rail movements.


Regional Economic Strategy

- 2.19 The Regional Economic Strategy sets the long term vision for the sustainable economic development of the East of England and comprises eight strategic goals. In the transport context the following priorities from Goal 6 “Making the most from the development of international gateways and regional transport corridors” are particularly relevant within the second LTP:
- Making the most of gateways to the sea
 - Promoting the delivery of strategic road, rail and other public transport priorities for the Region
 - Ensuring that transport priorities serve economic growth in a sustainable manner
 - Understanding and addressing the importance of transport links with London
 - Taking advantages of opportunities from sustainable airport expansion
- 2.20 Also of pertinence is the priority from Goal 4 “High quality places to live, work and visit” to ensure the provision of social and transport infrastructure.

More homes

- 2.21 The Draft East of England Plan proposes an extra 478,000 new homes for the East of England region. A significant proportion of this growth will directly or indirectly impact upon the transport network in Essex, and apply further pressure on access to strategic locations such as London, Stansted Airport, Harwich International Port and beyond. Of this Regional total, the 123,400 new dwellings presently allocated between the twelve District Councils in Essex and the Unitary Authorities of Thurrock and Southend-on-Sea. These additional dwellings will have a direct impact on the County’s transport networks⁶. Much of this growth is centred on the Thames Gateway and the M11 Corridor around Harlow/Stansted to help deliver sustainable communities, but about 50,000 new homes are planned in mid and north east Essex. Additional impacts on the County’s transport infrastructure will also arise from some of the housing growth planned for neighbouring London, Hertfordshire, Cambridgeshire and Suffolk. It is unclear

⁶ Draft East of England Plan (Dec 2004).



what the policy implications of the latest ODPM household projections might be for the East of England Plan, including Essex.

- 2.22 The existing Regional Spatial Strategy⁷ covering Essex recognises that a balance must be struck between housing pressures and the exploitation of economic opportunities, given in part the close proximity of Essex to London. New housing alone cannot make a sustainable community but regeneration, renewed (or new) infrastructure and growth can, if properly planned, provide strong, vibrant and sustainable local economies, unlocking a variety of job opportunities. This is especially the case in towns such as Basildon and Harlow which were originally created under the New Towns initiative in the 1950s, where the transport infrastructure is now in a state of decay and appropriate growth can act as a catalyst for change.

More Jobs

- 2.23 By 2021, it is expected that Essex, Southend-on-Sea and Thurrock will have an extra 116,000 new jobs, nearly 50% of which are planned for the Thames Gateway sub-region. Much of this growth is forecast to be in employment sectors consistent with the identified National Growth Areas. It will be important to match the location of these sectors with the skills of the surrounding population to minimise travel to work distances and ultimately increase the viability and sustainability of alternative modes of transport to the private car. In the Thames Gateway sub-region this would ultimately increase the viability and feasibility of the proposed South Essex Rapid Transit system (see Chapters 5 and 7), helping it to serve employees in a sustainable manner. Through numerous policies and strategies (including the development and implementation of the Accessibility Planning Strategy) the County Council will need to ensure that residents throughout Essex have access to the appropriate job opportunities. Improved transportation infrastructure and services is crucial to achieving this goal.

Expanded Airports

- 2.24 Stansted Airport is a transport gateway of international, national, regional and local significance and is identified in the Draft East of England Plan as a non-urban Regional Interchange Centre. Government Policy⁸ setting out a strategic framework for the development of airport capacity in the United Kingdom over the next 30 years, has expressed support for expanding operations at Stansted Airport by making best use of the existing runway and by developing an additional runway. Airport operator BAA plc has now published a consultation document outlining options for the location of their proposed second runway which would ultimately increase Stansted Airport capacity to around 76 million passengers annually by 2030.

⁷ Regional Spatial Strategy for the South East, RSS9. March 2001.

⁸ The White Paper *'The Future of Air Transport'*, DfT, December 2003.




- 2.25 The continued growth in aviation travel demand is placing an increasing burden on the County's transportation infrastructure as passengers travel from across the Region to reach Stansted Airport. East-West links to the airport are particularly poor, therefore additional funding and investment for infrastructure is necessary to minimise the impact that such development will have on Essex and Hertfordshire.
- 2.26 Separately, the potential Southend Airport growth aspirations to reach 1 million passengers annually by around 2012 and 2 million by 2030 are of sub-regional significance. These expansions will principally benefit Thames Gateway South Essex businesses and residents, but will also generate additional traffic on road and rail networks.

Expanded Ports

- 2.27 The Government has indicated that it is 'minded to approve' a major Container Port, Commercial and Logistics Centre at London Gateway located on the site of the former Shell Haven Oil Refinery in Thurrock. A 'minded to approve' announcement has also been made concerning the new Container Terminal at Bathside Bay, Harwich. If, as expected, these developments gain full approval, coupled with the approved expansion of the Port of Felixstowe in Suffolk, they will generate further pressure on the County's strategic road and rail networks in terms of growth in freight and journeys to work.

Managing Travel Demand

- 2.28 In addition to the complex travel movements outlined above, the growth anticipated in the County will have a detrimental effect on the quality of life of existing and future generations, unless management invention and infrastructure is provided in advance of the proposed economic and housing developments. The County's road network has historically failed to keep pace with the level of development. This evidenced in the Highway Network Capacity Study (HNCS), which shows that many of the key strategic routes are currently exceeding capacity. Within the County's two National Growth Areas, Congestion Reference Flow data shows that significant transport pressures will continue to remain on the following routes: A127, A13 and A130 in the Thames Gateway sub-region and the A414 in M11/Stansted sub-region. These problems will be exacerbated under the current development proposals and consequently the delivery of adequate transport infrastructure is essential to ensure that sustainable growth is achieved.
- 2.29 In order to minimise the effects of the expected additional demand, Essex County Council has adopted a range of policies and will seek new opportunities to manage the demand for travel. However it is recognised that even following the full utilisation of many of these policies there will be a negative effect upon many of the shared priorities, especially congestion and air quality. Consequently, it is



anticipated that in order to deliver the growth associated with the Government's Growth Areas, considerable investment in the County's infrastructure will be required.

- 2.30 The County Council's second LTP reflects the needs of the 1.3 million people living in Essex. Its preparation has taken into account and will influence the regional-level strategies and policies cited above in order to deliver sustainable growth. This LTP will also act as a delivery tool for the implementation mechanisms flowing from regional strategies and Government policy and so its future implementation will be influenced by the changes to the Draft East of England Plan arising from the public examination process.
- 2.31 The importance for the national and regional economies of effective links to London and international transport gateways features strongly in Regional strategies. These are key issues for Essex too, with the proximity of London bringing both benefits and challenges. Much of the affluence that characterises the County flows from the London economy and associated opportunities. Consequently, the commuting patterns generated place a significant strain on the road and rail networks in Essex, including the M25, M11, A12, and the Great Eastern, West Anglia and c2c main lines. These corridors through Essex play a vital role in meeting strategic access into and around London, and between regional ports, airports and surrounding major centres.
- 2.32 The implementation of this LTP will take into account the principal challenge of securing transport enhancements alongside the desire to reduce the need to travel. In seeking to address the decoupling of economic growth from increasing demands for transport infrastructure (also recognised in the Integrated Regional Strategy as one of eight crucial issues facing the region), the County Council has submitted a pump-priming Transport Innovation Fund bid to present to Government. This bid comprised a package of dynamic demand management, bus-based rapid transit and network control systems to improve access to the Thames, Haven and Stansted Gateways. Although this bid was unsuccessful, initially it is hoped that when re-submitted the outcome will be positive.




Regional Cross Boundary Issues

- 2.33 The County Council has been working with neighbouring authorities to develop solutions to address local issues and problems that cross local authority borders.
- 2.34 All of the Local Transport Authorities in the East of England have been working together through the East of England Directors for Environment and Transportation (EEDET) LTP group to:
- Identify and address transport issues of concern across the region;
 - Jointly promote transport projects of common interest across the region;
 - Share information, experiences and best practice to address cross border issues across the region; and
 - Encourage joint working between authorities to develop local transport solutions to address local cross border issues and problems.
- 2.35 Figure 2.2 summarises the prioritised strategic transport issues for the East of England Region.



Supplied by Local Transport Today (www.lttonline.co.uk)

Figure 2.2: The Prioritised Regional Strategic Transport Projects

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- 2.36 Within the Draft East of England Plan there are major development and transport proposals in the Harlow area which will directly affect Essex and Hertfordshire. The scale of these proposals combined with the need to plan the regeneration of the Harlow area has led to the establishment of the Harlow Area Working Party (HAWP). HAWP comprises planning and transportation officers from Essex and Hertfordshire County Councils and Harlow and East Hertfordshire District Councils, along with officers from GO-East (Government Office for the East of England) and EERA (East of England Regional Assembly), with the Highways Agency sitting on a transport group. Further details on the work of this group are provided in Chapter 6.
- 2.37 The Regional Transport Strategy (RTS) will continue to play a key role in all of the Local Transport Plans for the East of England through setting out the long-term planning and policy framework, and identifying regionally and sub-regionally significant investment proposals. However, at the time of writing this LTP, the RTS remains in draft form and the results of the Examination in Public (EiP) are due shortly after its submission. Essex County Council's Highways and Transportation Department played a strong role in the EiP, given the County's position as a cross-roads for trade in the Region, England, Europe and beyond.

Regional Transport Forum

- 2.38 The recently established Regional Transport Forum brings together Member Transport Portfolio Holders and Environment and Transportation Directors of the Region's Local Transport Authorities. Along with representatives from the key delivery agencies, it presents a valuable new mechanism to progress issues relating to transport topics and the implementation of the Regional Transport Strategy. Essex County Council's representation has already had a significant impact, for example through influencing the development of the methodology for the prioritisation of the major transport schemes in the East of England Region.
- 2.39 This helped to ensure that adequate recognition in the methodology was given to projects meeting historical deficit as well as delivering growth needs, and assisted the identification of the following major Essex schemes as high regional priorities:
- A130/A13 Sadlers Farm Junction Improvements;
 - South Essex Rapid Transit;
 - A13 Passenger Transport Corridor;
 - A131 Great Notley Garden Village Bypass Dualling; and
 - A120 Braintree to A12.



Partnerships

- 2.40 Essex County Council is managing its many pressures and challenges through stronger partnerships with consistent and realistic priorities:
- Strategic partnerships that identify shared problems and agree the policies, initiatives and schemes needed to address them.
 - New forms of delivery partnership to work towards more stretching aims such as the implementation and delivery of agreed schemes and measures.
- 2.41 The County Council has strong strategic joint working relationships with neighbouring authorities and with national agencies, such as the Department for Transport (DfT), the Highways Agency, Network Rail and DfT Rail. These strategic partnerships are very successful in determining common problems and identifying strategic solutions, as well as sharing best practice on a number of transport issues such as Accessibility Planning.
- 2.42 Strategic partnerships, although vital to establish agreed outcomes, increasingly need to provide a mechanism to ensure successful delivery of measures on the ground. A good example of proactive working is in Thames Gateway South Essex (TGSE) where more focus has been given to scheme delivery and programming across the whole growth area through the publication of the Thames Gateway South Essex Business Plan for Transport and the development of a Transportation Board.

Thames Gateway Transportation Board

- 2.43 A new momentum in TGSE has emerged through the provision of strong leadership and direction. A Transformation Strategy has been developed to accelerate the pace of change in order to meet the challenging demands of the future. The public and private sectors are working together in harmony through a new Transportation Board to help steer the development of a realistic and radical programme of initiatives that will transform the delivery of transport improvements and provide a wider range of choice for the travelling public.
- 2.44 The Transportation Board recognises that no one organisation can deliver the transport programme contained in the Business Plan individually and therefore the need for new and integrated partnerships is essential. The Business Plan sets out how a new partnership approach can support the sustainable regeneration of TGSE through a clear and realistic programme framework, that is necessary to deliver the much needed transport infrastructure over the next 15-20 years.

2.45 Figure 2.3 depicts the emerging partnership arrangements in Thames Gateway South Essex. The new partnership would be designed to harness private sector entrepreneurial skills, while at the same time retaining public accountability for determining policy objectives and priorities. It will seek to raise money from several sources (public and private) and will have the flexibility to expand and contract in size to accommodate demand at any given time.

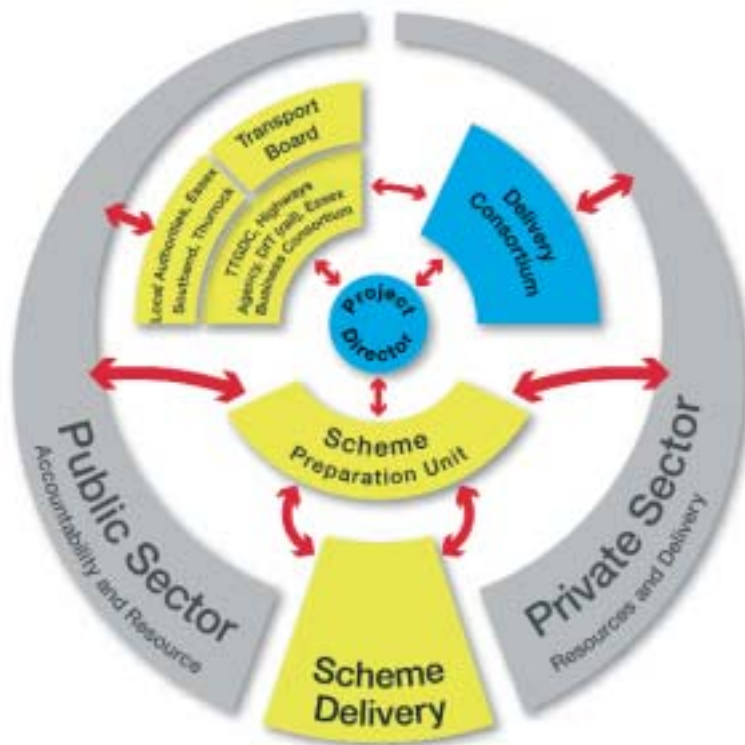



Figure 2.3: Thames Gateway South Essex Potential New Partnership Arrangements



- 2.46 It is recognised that the full delivery vehicle will take time to develop, and now that the first stage of implementation has been achieved by setting up the new Transportation Board, greater emphasis will be placed on establishing the full package.
- 2.47 In addition to the partnership arrangement, the three Highway Authorities in TGSE have worked closely in the preparation of their respective LTPs. The individual authorities have each submitted their own LTP containing a common set of objectives, priorities and related programmes of schemes for TGSE. These objectives align closely with those advocated for National Growth Areas, as follows:
- To provide sustainable development, linking new housing and jobs to existing communities;
 - To provide critical support for both housing and employment growth, balanced throughout the Gateway;
 - To integrate local transit systems to drive growth and regeneration;
 - To provide strategic management of key transport corridors to secure effective use of the network;
 - To reinforce the development of key public transport interchanges;
 - To develop key road junctions to support the regeneration of key housing and employment sites;
 - To implement key local links in the transport network; and
 - To manage the movement of freight to, from and across the Gateway particularly in the context of port restructuring.

Stansted Airport Surface Access Strategy

- 2.48 Continued partnership working with BAA plc is essential within the Stansted Airport Surface Access Strategy (ASAS). Monitoring and reviewing the implications of further expansion at the airport will seek to identify appropriate improvements to services and infrastructure.
- 2.49 Existing partnerships include the Surface Access Transport Forums which examine the following topics:
- Local access (walking, cycling and Public Rights of Way);
 - Travel Planning;
 - Bus & Coach Access;
 - Highways;
 - Rail; and
 - Monitoring Strategy.

- 
- 2.50 These topic groups are overseen by a steering group. The topic groups comprise representatives drawn from local authorities, the East of England Regional Assembly, the Highways Agency, DfT Rail, GO-East and Cyclists Touring Club/SUSTRANS. Under the terms of the present planning obligations the Stansted Airport Surface Access Strategy has to be reviewed and updated to check progress against targets.
- 2.51 The current planning permission for Stansted Airport limits its use to 25 million passengers per annum (mppa). Planning obligations attached to the existing permission required BAA plc Stansted to develop the Stansted ASAS to increase the use of public transport by air passengers and airport staff as recommended in the Transport Policy White Paper of 1998. The County Council continues to actively participate in this process by attending and participating in the Surface Access Transport Forums listed earlier that are regularly convened by BAA plc, some being chaired by Essex County Council and its neighbours, Hertfordshire County Council.
- 2.52 BAA plc are currently in the process of preparing planning applications for expanding operations at Stansted Airport beyond the 25 mppa limit imposed by the current planning permission, initially up to perhaps 35 or 42 mppa, to increase use of the existing runway beyond the 25 mppa limit as “Making Better Use”. The application to expand the airport capacity to around 76 mppa by 2030 by building a second runway is referred to as “Stansted Generation 2”. Essex County Council will continue pre-application discussions with BAA plc and their consultants to examine the transport implications of the airport expansion proposals. The location of Stansted Airport is such that expansion will focus transport impact on Essex and nearby areas of Hertfordshire. Essex County Council will continue to work in close partnership with Hertfordshire County Council and the District Councils of Uttlesford and East Hertfordshire to examine the transport implications of the airport expansion.

Haven Gateway Partnership

- 2.53 Eleven local authorities and local private sector organisations have come together to form a partnership to promote the growth and regeneration of the Haven Gateway. The area includes Felixstowe and Bathside Bay (Harwich) container ports for which the Secretary of State is “minded to approve” expansion of these international facilities. The regional interchange centres of Colchester and Ipswich are a focus for employment, retail, leisure activities and have research industries and universities. The Suffolk Coast and the Dedham Vale (Constable Country) is an area of outstanding natural beauty and a focus for tourism. The area recognises the need to grow to maintain its economy and has made a submission for Growth Point Status to the Government.

Wider Context

Chapter 3

The Character of Essex



The Character of Essex

Setting the Scene

- 3.1 Essex is the largest authority in the East of England and the second largest shire Authority in England and Wales with a population of over 1.3 million. It is a large and diverse County with some highly urbanised areas that include concentrations of industrial, commercial and housing development focused on the five RICs of Basildon, Chelmsford, Harlow, Colchester and Stansted Airport. Other areas of the County are considerably more rural and agricultural in character, with a number of smaller market towns, of which 12 have populations in excess of 25,000.
- 3.2 Despite being largely rural, Essex has a population density that is almost 60% higher than the national average, with 3.8 people per hectare (pph), compared to the national average of 2.4pph. A third of the population is concentrated in the four main urban areas of Chelmsford, Colchester, Basildon and Harlow.
- 3.3 Essex has approximately 7,500km of roads and 785,000 registered cars, with over 13 billion vehicle kilometres travelled annually by residents, visitors to Essex and those travellers passing through on Highways Agency controlled roads – the M25, M11 motorways and the A120 and A12 trunk roads. This corresponds to an increase in excess of 7.5% more kilometres between 1998 and 2002 and is forecast to increase further to over 14.5 billion kilometres by 2010 (primarily outside urban areas). The County has a high level of car ownership at 1.3 cars per household, some 20% higher than the national average. Over 38% of households in the County (the UK average is only 28%) have access to 2 or more cars. However, there remains a significant proportion of households in Essex that do not have access to a car (19%).

Living in Essex

Population

- 3.4 Whilst average household size in Essex is in line with the national average (2.4 people per household), Figure 3.1 illustrates how this varies considerably across the County.

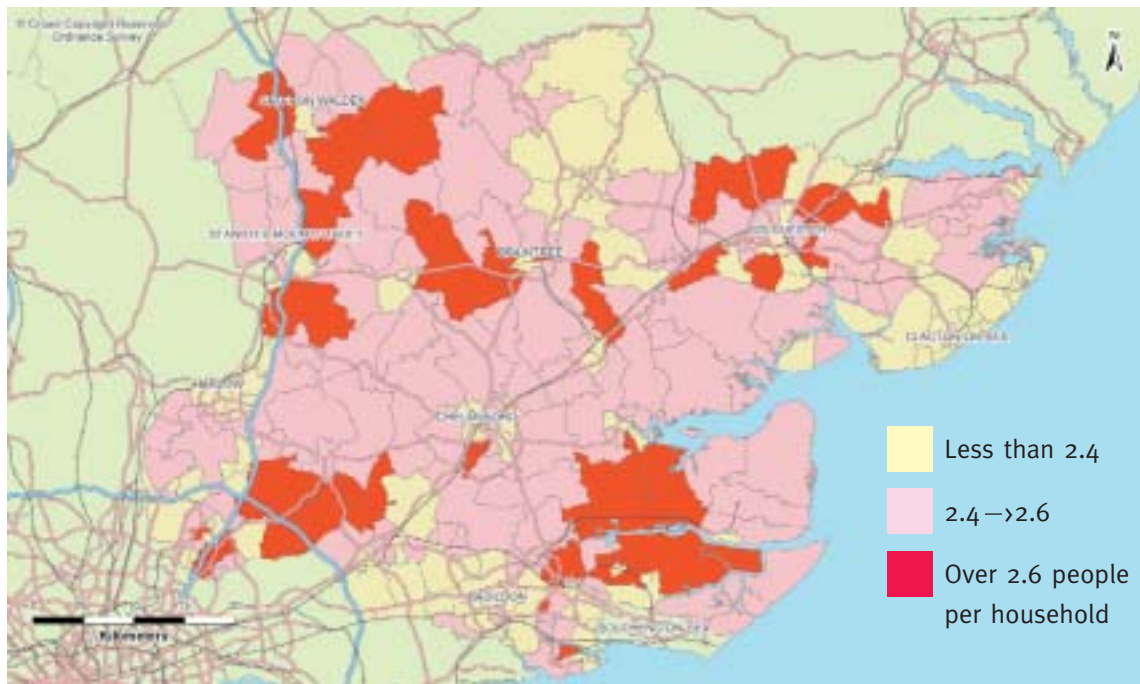


Figure 3.1: Average Household Size Across Essex

- 3.5 With the housing and job growth predictions expected by 2021 and the continued high housing market prices experienced in some parts of the County, these population characteristics are liable to change somewhat, and therefore numerous additional challenges are expected to emerge. Consequently, the second LTP needs to be flexible in order to adjust to these demanding expectations.
- 3.6 In line with national trends there has been a significant increase in single person households over the last 30 years, increasing from 24% of households in Essex in 1991 to 28% in 2001. This creates a greater demand for housing and each additional household creates a disproportionate increase in the number of trips to access goods and services.
- 3.7 The population of Essex is ageing, with more than a quarter of a million OAPs making up 19% of the County's population. Whilst this is similar to regional and national proportions, the current rate of growth is four times higher than national trends, with a significant increase of 12% between 1991 and 2001. As this trend continues, issues associated with accessibility, for example problems accessing healthcare and a rise in demand for public transport on new, possibly commercially unviable routes, will exacerbate over time. As people live longer it will ultimately mean more cars and congestion, followed by a need for more accessible Public and Community Transport – all at a cost.

3.8 Essex also has a significant student population (see Figure 3.2), with over 25,000 students aged 16-18 in Further Education and 23,000 enrolled in Higher Education. The Higher Education institutions in Essex include Anglia Ruskin University in Chelmsford, the University of Essex in Colchester, Basildon and Southend-on-Sea, and Writtle College (Chelmsford). Large numbers of students from all over the County need to access these increasingly centralised educational institutions. Similar accessibility problems are being seen with regard the ongoing trend of relocation of hospital services to large, single site facilities, with visitors needing to travel greater distances to sites that are often out of town and difficult to access easily other than by car.

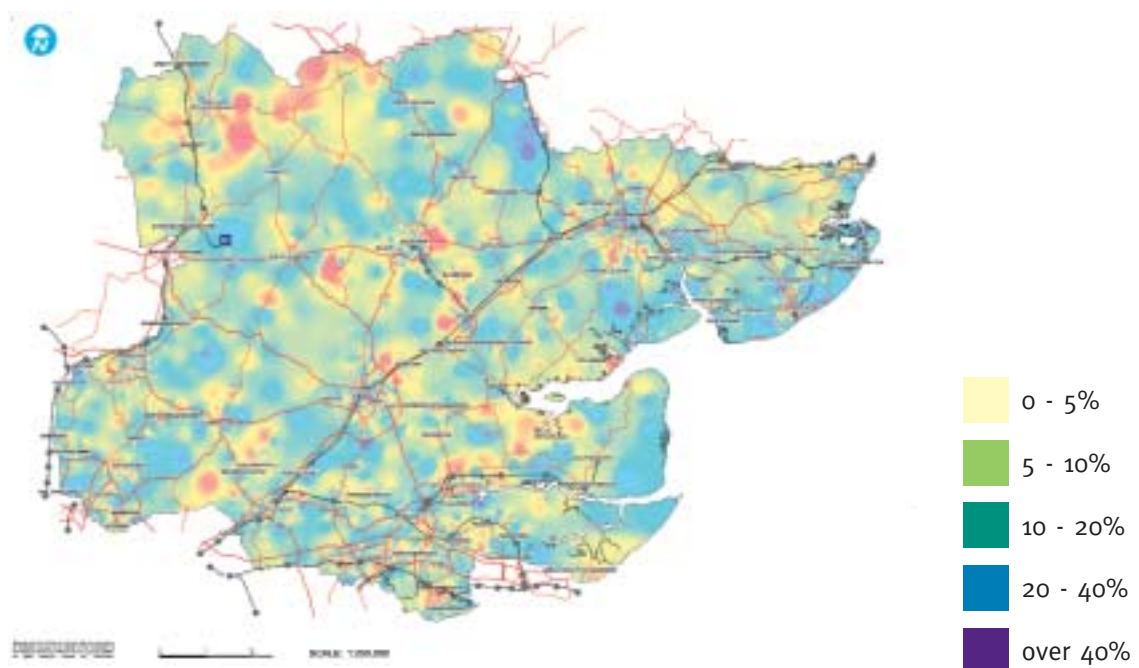


Figure 3.2: Student Population Across Essex

3.9 Overall, Essex has a high level of good health (see Figure 3.3) with 71% of the County's population being classified by NHS figures as being in 'good health' mirroring national and regional health profiles. However, this hides significant differences across the County. For example, the more affluent district of Uttlesford has 75% of residents who feel in good health, whilst in the Tendring District this drops sharply to just 63%. One important issue for health is obesity and the National Obesity Report 2003 showed that adult obesity in Essex has increased from 13% to over 20% in the last 10 years. There is a clear link between obesity and transport, because sustainable travel modes, such as cycling and walking, when taken up as lifestyle choices can make real improvements to the health of the population.

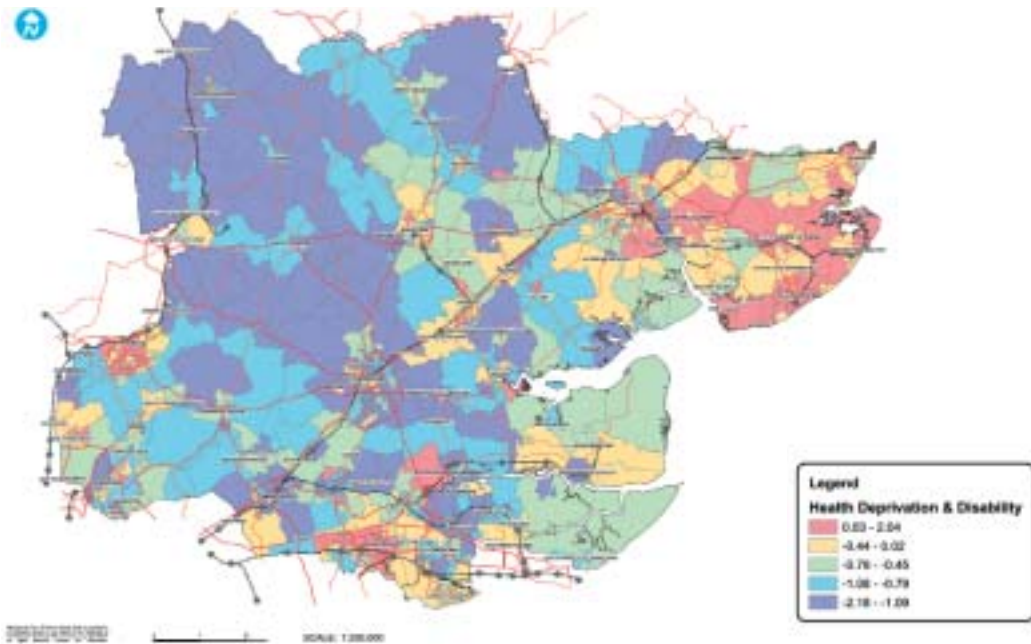


Figure 3.3: Health Across Essex

3.10 Although only a very small proportion of Essex residents are officially classified as ‘deprived’, it is nonetheless essential that the County Council continues to understand the role that transport can play in developing an accessible and more inclusive society. By improving public transport, walking and cycling facilities, reducing the risk of accidents and encouraging travel by sustainable modes, the County Council can enable safe access to surrounding areas and places further afield for those residents who are at risk of deprivation. Figure 3.4 illustrates the small pockets of higher than average deprivation located in Essex:

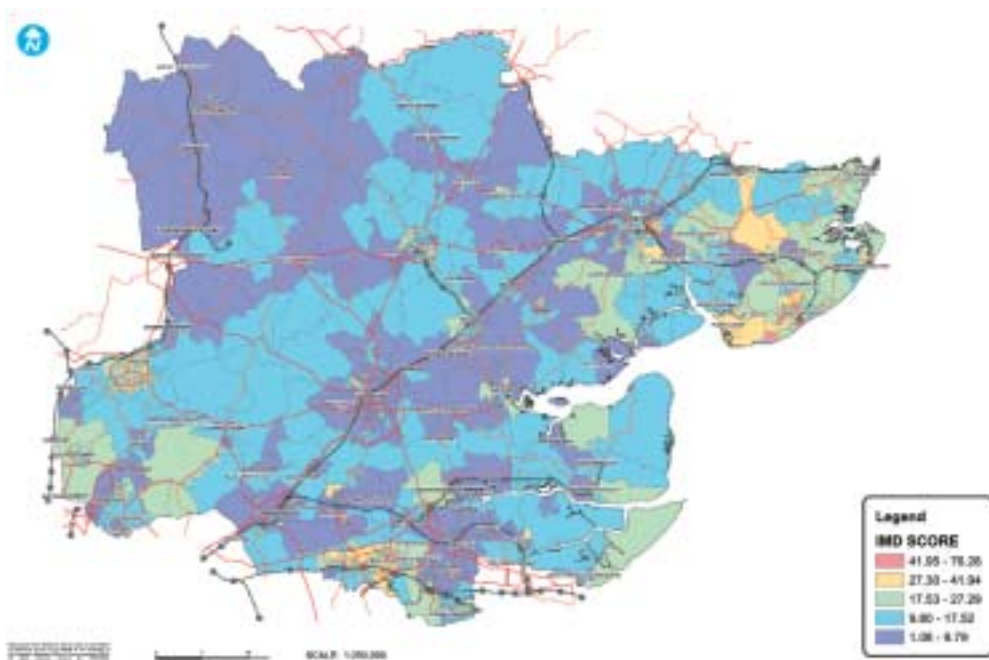


Figure 3.4: Areas of Multiple Deprivation Across Essex

Economy and Employment

- 3.11 The Gross Domestic Product of Essex (total economic activity in the area), exceeds £19 billion annually, representing over 25% of the economic activity for the East of England.

GDP for the East of England Region in 1998

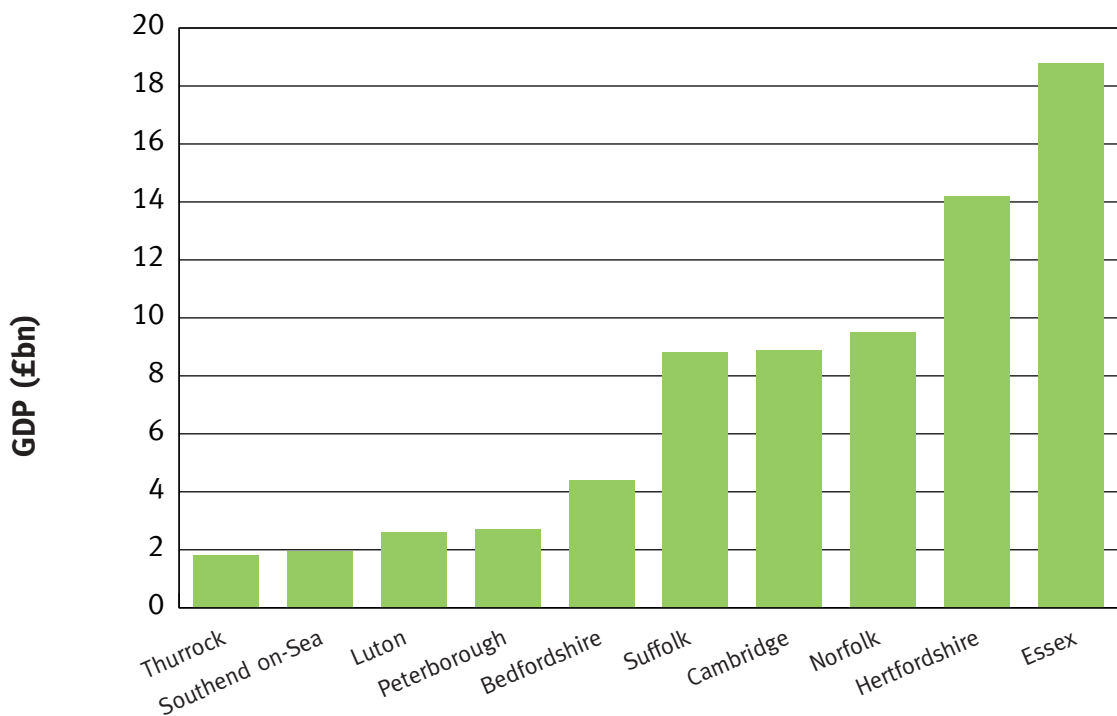


Figure 3.5: GDP across the East of England Region

- 3.12 In Essex, there are over 300 employers with a workforce of more than 100 staff. Many large employers have chosen to locate in Essex, including such well known names as Ford Motor Company, Royal Mail, BAA Stansted, GlaxoSmithKline, BAE Systems, and, of course, Essex County Council itself, a direct employer of over 1,000 staff at its County Hall site alone. The major employers tend to be situated within large urban areas and in the vicinity of the County's major roads and rail corridors, illustrating the advantages of, and desire for, good accessibility and excellent transport networks.
- 3.13 Unemployment across Essex is similar to regional averages. However, the districts of Harlow, Tendring and Basildon tend to have a higher than average level of unemployment rates. The County's employment structure fits broadly with national and regional patterns, but there are more workers employed in Essex in financial services and the construction sector than the national average (approximately double) (see Figure 3.6).

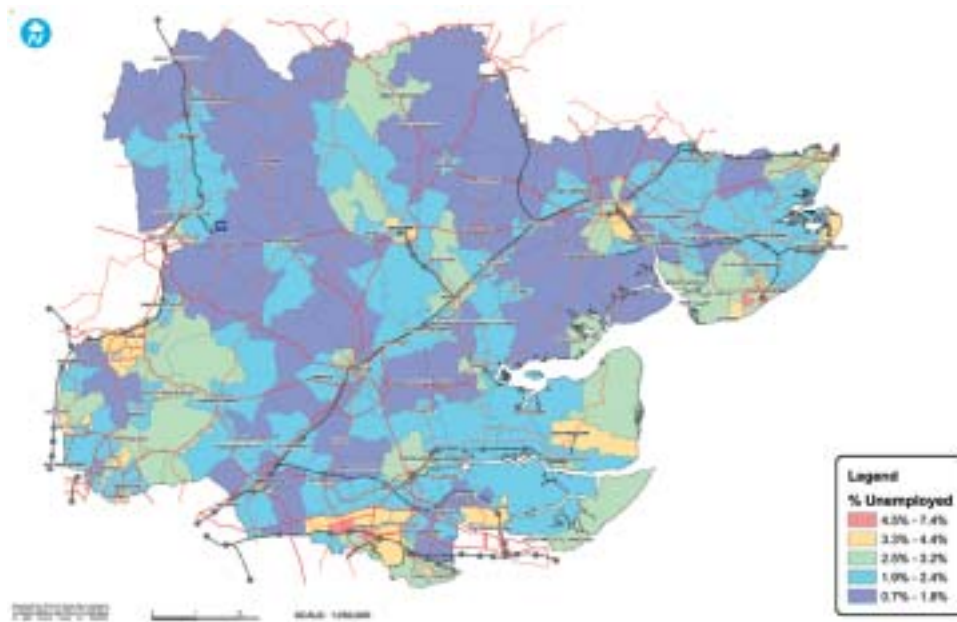


Figure 3.6: Unemployment Rates Across Essex

The Essex Transport Network

The Road Network

3.14 A high quality and well integrated transport network is essential to the delivery of this LTP. In Essex this is categorised into the following networks:

- Road network (Priority 1 routes and Priority 2 routes);
- Rail network; and
- Walking and cycling network.

3.15 The road network in Essex is shown by the Functional Route Hierarchy in Figure 3.7 that has been developed to facilitate maintenance and traffic management. Within this route hierarchy there are County Routes that have a strategic function and Local Roads which have a more local purpose. The County Routes are divided into two key categories: Priority 1 routes and Priority 2 routes.

3.16 Priority 1 routes are:

- All Trunk roads: (Blue)
- Inter-urban routes – routes which link towns and cities together and to the Trunk Road network, for example A130, A414, A127: (Green)

These routes will carry large volumes of high speed traffic and freight, through and around Essex.

- Radial-feeder routes – final journey route into or out of town centres, for example, A129, A1016, A138, A1114, B1008: (Red)

These routes feed traffic to and from the inter-urban routes (to their final destination) and carry large volumes of traffic during the peak hours when people are trying to access/leave town centres.

3.17 Priority 2 routes are the remaining County Routes: (Magenta)

- Although not as important as the Priority 1 routes, the Priority 2 routes still perform an essential traffic management distributory function between the local network and Priority 1 County Routes (see Figure 3.7).

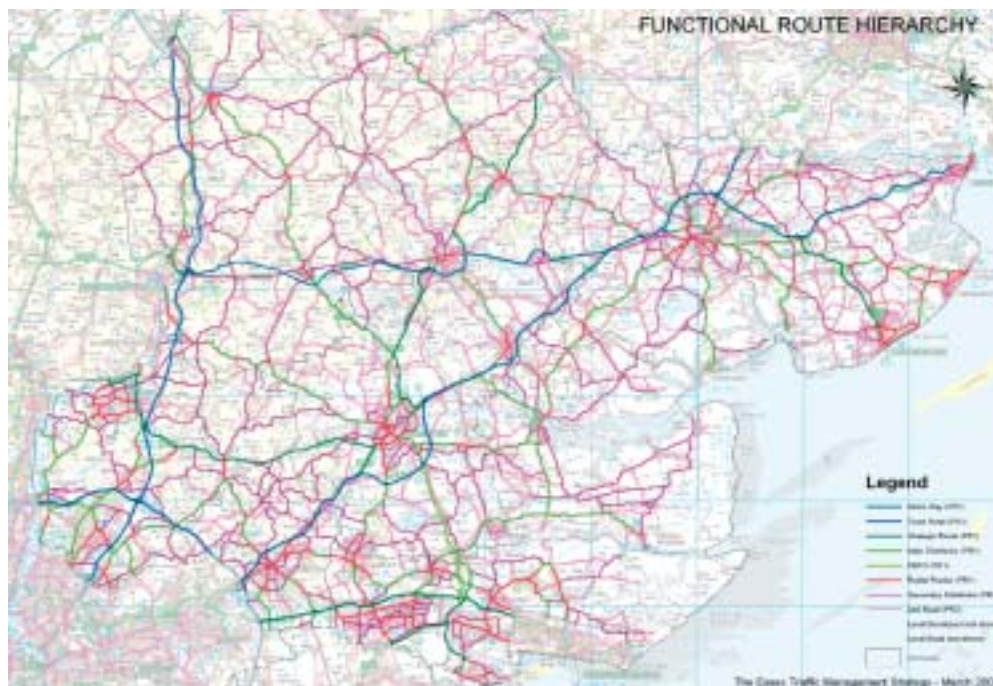


Figure 3.7: Road Hierarchy in Essex

3.18 A large proportion of strategic and trunk roads in Essex are either operating at or exceeding their capacity. Traffic has increased substantially over the years, as shown in Figure 3.8.

3.19 Congestion is set to increase further due to continuous growth pressures from London, job growth and increased housing demand. In addition, the growth of the ports and airports in and around Essex will result in increased utilisation of the road network by people and freight.

3.20 Essex has two of the country's largest nationally identified Growth Areas, the M11/Stansfeld Corridor and Thames Gateway. In addition, the Haven Gateway sub-region has sought to be recognised under the 'Growth Point status' designation. The full potential of Essex and its role in the regional and national economy can only be realised when improvement to its key infrastructure are implemented.



Figure 3.8: Traffic Growth on the Essex Road Network (vehicles per day)

The Cycling and Walking Network

- 3.21 Improving walking and cycling is crucial to providing viable alternatives to the private car in Essex. There are a number of benefits to this aim – not just health but congestion relief, accessibility and safety. This can only be achieved through providing a safe and accessible cycling and walking network. Essex County Council has invested in maintaining and improving the network in the first LTP; the emphasis in the second LTP is now on providing strategic routes which form links between centres of population and locations containing services, employment, healthcare and leisure facilities.
- 3.22 The Walking and Cycling Reviews commissioned since 2004 have been an important component of the County Council's second LTP programme. Scheme recommendations from these reviews were prioritised using matrices of variables such as value for money and the level of increase in cyclists and pedestrians. The results of the reviews were high, medium and low priority schemes. The high priority schemes appear in the second LTP and are those which are of proven strategic importance as key links between centres of population, work and leisure.

3.23 Key future schemes include:

1. Chelmsford Cycle Hire Initiative – A new facility allowing the rental of bikes through the use of mobile phones. This scheme will improve cycle use and access to bicycles around the town centre and the surrounding areas.
2. Basildon: Cycleway from the Burnt Mills Industrial Estate to the Town Centre. This scheme will strive to achieve a substantial increase in the level of cycling linked in with regeneration of the Fryerns estate. This route will provide links to 7 schools.
3. Harlow: Southern feeder cycle links. This route is predominantly off-road and will provide links to the Pinnacles Industrial Estate, Sumners and Kingsmoor Leisure Centres, Harlow Study Centre and Jean MacAlpine Park. This will also give access to 14 schools.
4. Colchester: Creation of a new well-signed cycle network to encourage greater use of existing corridors to key destinations.
5. Braintree: Coldnailhurst Avenue to Town Centre Cycle Route – This route will address a missing link between current cycle corridors from a main residential area and give access to a number of education establishments. Facilities such as the Post Office, Police Station, St Michael's Hospital, Sports Centre, Town Centre and Braintree Railway Station will be able to be accessed by linked cycle corridors.

The Rail Network

- 3.24 The rail network in Essex is covered by several franchises, including c2c, 'One' Railway, Stansted Express and Central Trains. Essex has 27% of the total stations in the East of England with 23.3 million passenger entries per annum (the highest in the Region). Chelmsford is the busiest station across the whole of the Region with in excess of 6.4 million passenger movements per annum. The London Underground also provides access from Epping Forest District to central London via the Central Line. The London Underground stations located in Essex are Epping, Theydon Bois, Debden, Loughton, Buckhurst Hill, Roding Valley, Chigwell and Grange Hill. Figure 3.9 depicts the County's rail network and interchanges.

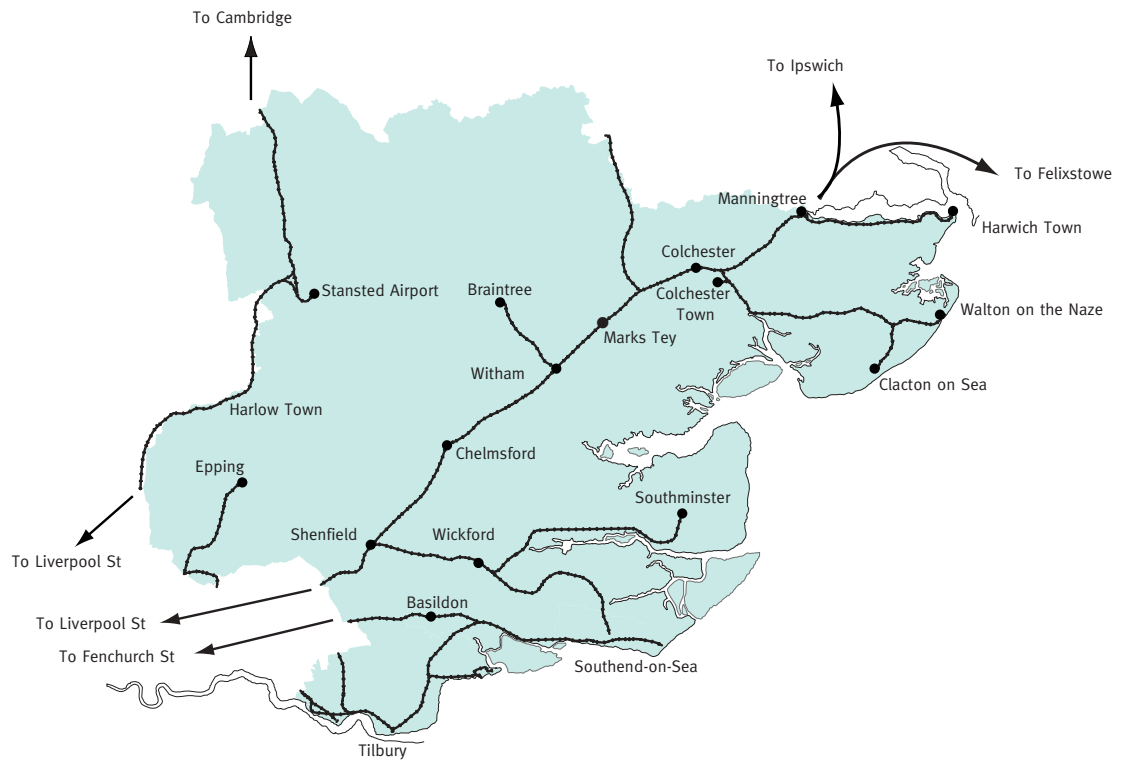


Figure 3.9: Rail Network in Essex

- 3.25 There is significant overcrowding on some rail corridors serving the population of Essex. It is predicted that the number of travellers using rail services to commute to London alone will increase by 14% by the year 2021 due to the proposed housing growth anticipated by the Draft East of England Plan.
- 3.26 Therefore the conventional methods of travel (i.e. using the road and rail network) could no longer be sustainable in the near future. The County Council recognises that it cannot simply manage the transport system based on previously adopted “predict and provide” principles. There is a serious need to consider demand management measures in order to make people rethink their travel needs and mode choice in the future.

Public Transport in Essex

- 3.27 Through the Road Passenger Transport Strategy, formulated for the first LTP, the County Council undertook a wide ranging set of measures designed to improve passenger transport in Essex. This strategy includes not just the County Council’s approach to local buses (Bus Strategy) but also includes taxis and Community Transport.

- 3.28 This strategy outlines how the County Council can learn, develop and transform bus services across the County. One such example is the success achieved through the development of the Village Link Network, which was established using the Rural Bus Support Grant. The County Council's expenditure on Community Transport service provision increased from £670,000 to over £1 million during the course of the first LTP, and funding was targeted into the areas of the County that were identified as being underprovided for. As a direct consequence, the number of Community Transport journeys undertaken in Essex increased from 180,000 in 2000/01 to around 460,000 in 2004/05.
- 3.29 Other recent successes include the implementation of an award winning telematics system giving real-time journey information and traffic signals priorities for buses in Chelmsford. The establishment of the Essex Traffic Control Centre has also helped to improve the attractiveness of the public transport network by providing accurate real-time information for bus users. The County Council has developed strong working relationships with bus service operators that have led to the introduction of high-quality Quality Bus Partnerships (QBPs).
- 3.30 Bus patronage in Essex has increased by around 10% from the 2000 base. This is against a background of falling passenger numbers nationally outside London and a few metropolitan areas. The second LTP policy is aimed at ensuring this trend continues in the future.

Freight Distribution Network

- 3.31 Essex plays an important international role as one of the key transport gateways to and from the United Kingdom. Its close proximity to London and the major ports in the Haven Gateway and Thames Estuary, as well as the key freight hub located at Stansted Airport, makes Essex an important County for freight distribution. Two large ports have been conditionally approved for Essex, with container port developments at Shellhaven and Bathside Bay at Harwich, alongside the expansion of Felixstowe in neighbouring Suffolk that will all have significant impacts on the County's network. This, coupled with the planned expansion at Stansted Airport is likely to result in increased demand for road and rail freight and associated infrastructure.
- 3.32 Currently, over 100 million tonnes of freight are moved every year to, from and within the County (excluding pipeline traffic). 30% of this volume passes through the County. Freight traffic in Essex will grow at a rate faster than the national average due to the 'Gateway' status of the County and those locations surrounding Essex (London, Kent, Suffolk and Thurrock). The County Council is working hard to fully capture the economic benefits derived from such growth, whilst eliminating the negative impacts associated with increased freight movements on the infrastructure.



Travel Patterns

3.33 Travel patterns vary significantly across the County, most notably in the movements made to access employment. Self-containment describes the proportion of people living in a given location who also work in the same area, and it has important implications for the way that transport is planned and managed. In Essex, Colchester has a high level of self-containment (67%) while, in contrast, less than half (45%) of Braintree residents work in the town, owing to major housing growth which has yet to be matched with employment opportunities. Only 50% of people living in the North of Essex actually work in the same area, illustrating the consequences of fewer job opportunities in rural areas. Table 3.1 shows the self containment levels for each RIC and Area Strategy area in Essex.

Area	% Self-containment
Haven Gateway Area	79%
Colchester RIC	67%
Heart of Essex Area	63%
Chelmsford RIC	56%
Stansted/M11 Area	55%
Harlow RIC	62%
Thames Gateway Area	55%
Basildon RIC	57%
North Essex Area	50%
Braintree	45%

Table 3.1: Self Containment Levels for each Area Transport Delivery Strategy

3.34 Figure 3.10 below shows the level of commuting movement between Essex and other surrounding authorities. It gives an indication of where people live and where they wish to travel to access employment, healthcare, education and shopping facilities.

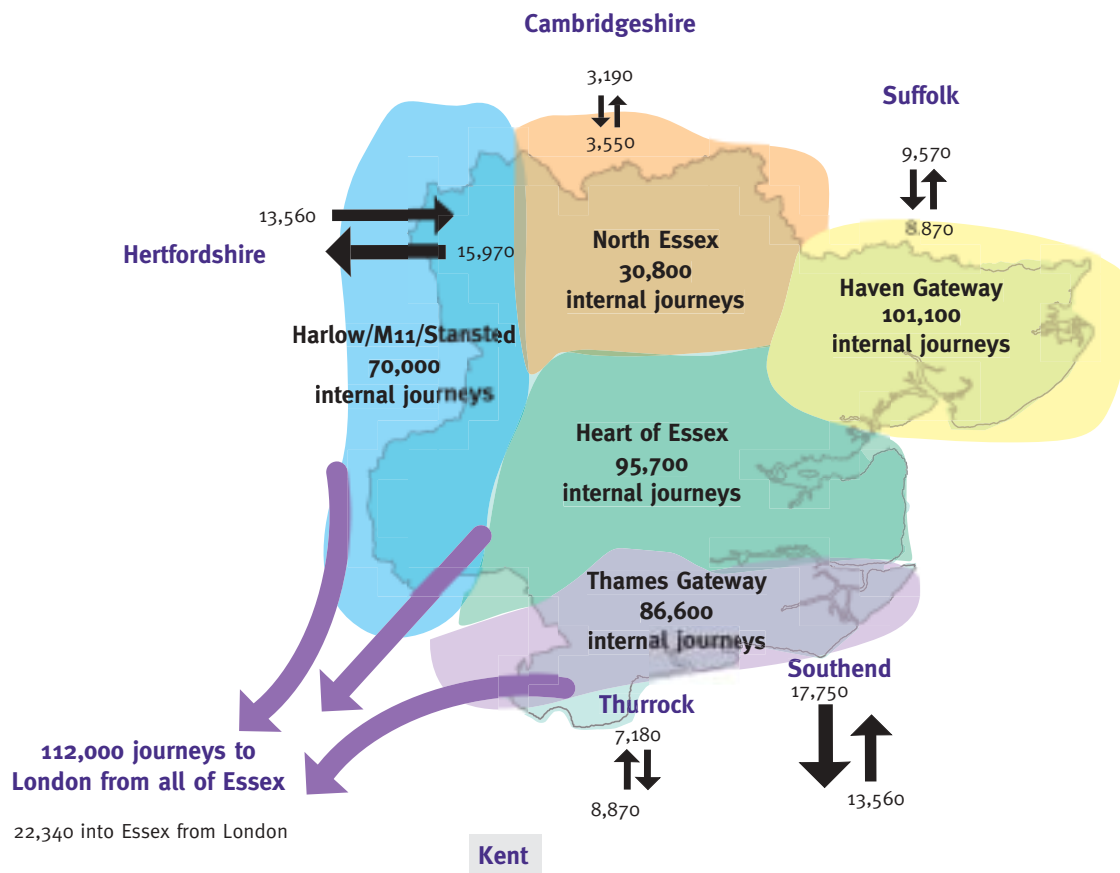


Figure 3.10: Movement between Essex and Surrounding Authorities

- 3.35 The County Council has used data from the National Travel Survey (2003) to obtain a clear understanding of people’s travel patterns, including their journeys to school and work. In Essex it can be seen that a substantial proportion of journeys to work are made by car drivers and passengers (69%). The percentage of train journeys to work is, however, also quite high at 11%, illustrating the longer-distance commuting that is a by-product of the County’s proximity to London and the draw of the jobs market there. The use of public transport bus services for commuting in Essex is only 2% though, and the proportion of work journeys made by bicycle is equally low at 3%, but Essex has seen an increase in bus passenger journeys of over half a million trips between 2004 and 2005, a 10% growth since 2000, and a rise in cycling of 44% over 3 years, achievements that are the foundations of continuing improvements towards 2010 targets. Although walking to work journeys are quite low at 6%, 20% of all journeys are by foot, only marginally lower than national levels. Improving pedestrian facilities will make it easier for people to access facilities on foot.
- 3.36 Figure 3.11 shows the modal split for the County in 2003 (taken from the National Travel Survey, Boost for Essex).

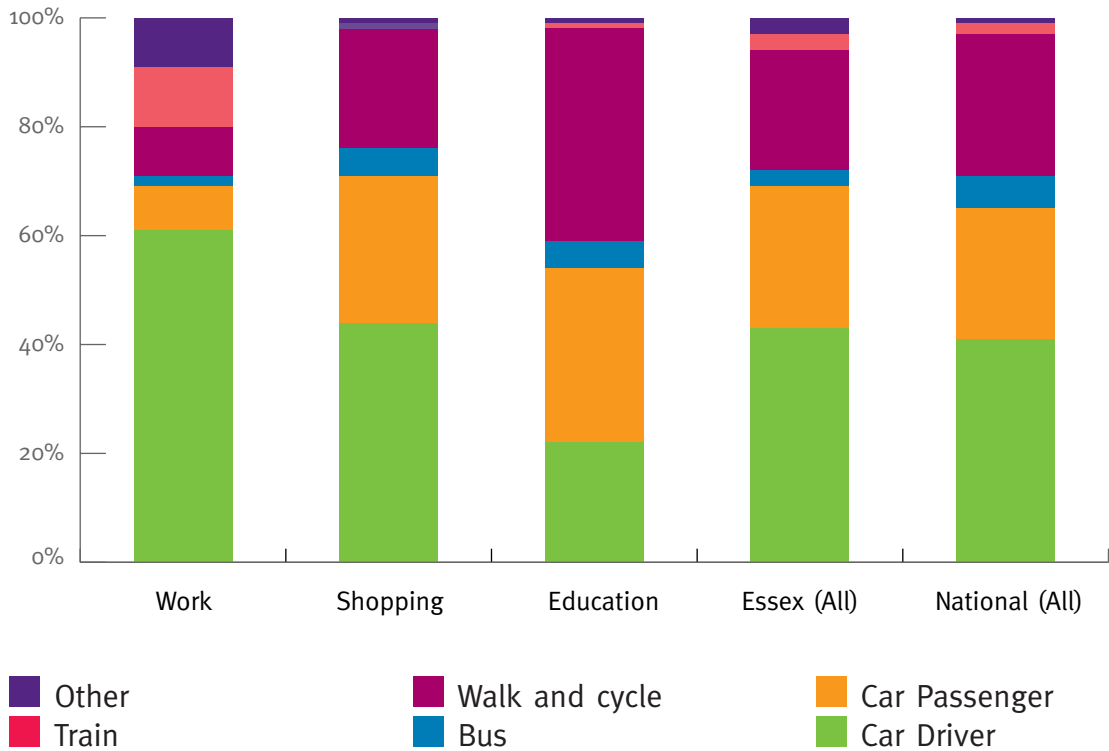


Figure 3.11: National Travel Survey 2003 – Modal Split

- 3.37 Essex continues to benefit from lower than average car use for journeys to school by both primary and secondary school children. In Essex the proportion of primary children walking to school (55%) is considerably higher than the national average, with the proportion of children taken by car lower at just 36%. The proportion of secondary pupils walking to school is 47% (higher than the national average) while 26% of pupils go via private car (lower than the national average). In Essex the percentage of secondary pupils cycling to school (5%) is higher than the national average (2%).
- 3.38 Essex County Council has worked in partnership with Southend-on-Sea and Thurrock Councils to obtain the National Travel Survey (NTS) data, in order to give a complete picture of travel patterns across the area. The following graph shows trips to school for primary and secondary pupils and indicates national changes from 1991/93 to 2002, with comparative 2002 figures for Essex.

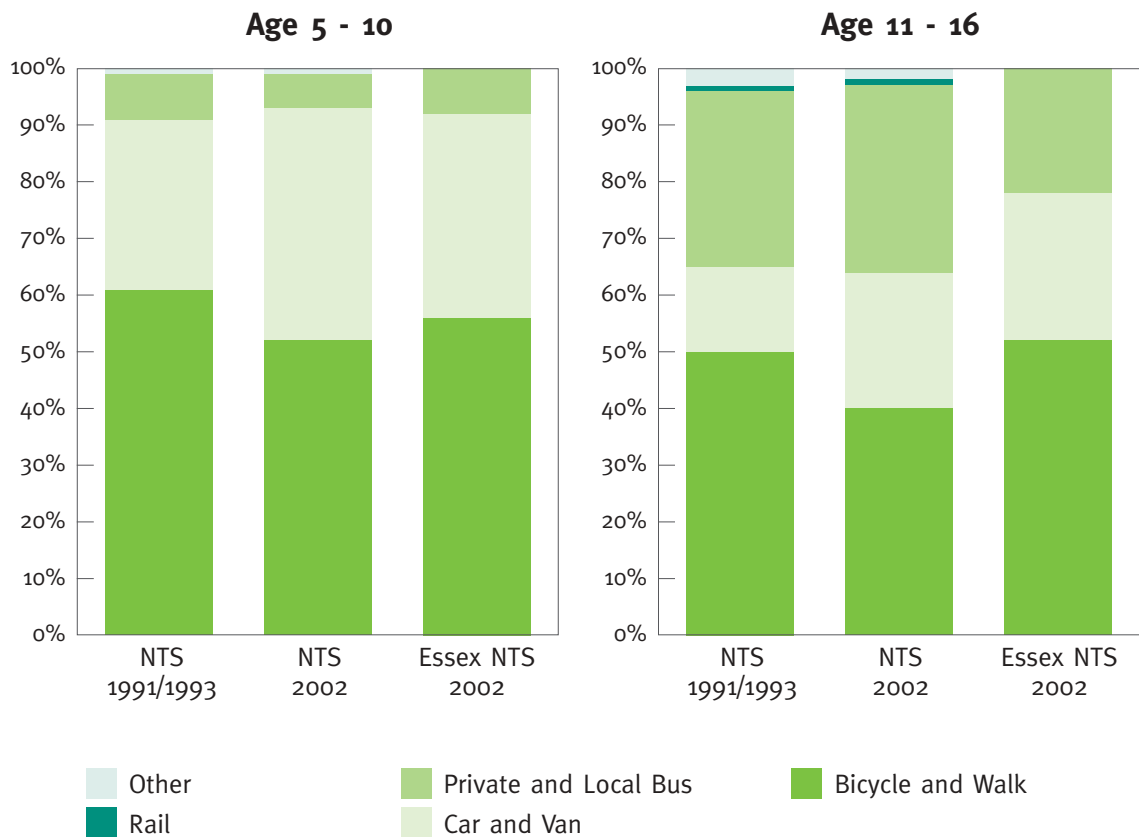


Figure 3.12: National Travel Survey 2003 – Journeys to School

Environment

- 3.39 The landscape of Essex is a significant natural asset, both for Essex and the surrounding areas. The east of the County borders the North Sea, with over 300 miles of sensitive coastline, much of which is home to many important species of flora and fauna. Essex also contains 31,500 hectares of designated Sites of Special Scientific Interest, and over 200 Conservation Areas. In addition, Essex has extensive areas of farmland that cover over half of the County, 59% of which are the best quality grades.
- 3.40 The Draft East of England Plan (DEEP) has identified many areas of Essex as having valuable environmental assets. The Thames Gateway and Haven Gateway areas are identified as being home to sensitive coastal estuaries, floodplains, grasslands and marshes and other habitats important for their biodiversity. These areas are at risk from coastal flooding, unsustainable water abstraction, and the port developments. The M11/Stansted corridor has been identified as being important for high quality built environments and inland landscapes such as the ‘rolling countryside’ and the numerous listed buildings of Uttlesford District. This corridor is at risk from unsustainable airport expansion, excessive water



extraction, fluvial flooding, high road traffic levels and the resulting poor level of air quality especially around Epping Forest.

- 3.41 The links between transport and the environment are well-documented, and include noise and vibrations from vehicles, and the severance impact and land requirements of large infrastructure on local communities. In addition, transport can have positive impacts on the environment. For example, transport can assist in areas of regeneration with initiatives such as the ‘Greengrid’ in Thames Gateway that can improve the Quality of Life for the residents of and visitors to Essex. However, the most significant and important effect that transport will have on the environment is the impact that vehicles and aircraft have on air quality, biodiversity and health. In terms of air quality, transport is responsible for around 50% of all nitrous oxide (NO_x) emissions, 90% of carbon monoxide (CO) emissions and 21% of carbon dioxide (CO₂) emissions (in Essex). CO₂ also has important implications for human health and climate change.
- 3.42 Recent monitoring in Essex confirms that traffic levels are the main cause of air pollution in the County and, as a direct result over 220 air quality sites are monitored. The results are summarised and regularly reported to each District. Of these sites, approximately 60 have been identified as being at, or close to the national threshold levels of NO_x and PM₁₀s required for intervention. This has important implications for this LTP because a number of these locations are close to major centres where traffic levels will need to be managed to ensure air quality levels remain below the national threshold. Essex currently however has just one Air Quality Management Area (AQMA) in Colchester where an Action Plan is being developed to tackle the problem.
- 3.43 The link between air pollution and climate change is important as the possible consequences of climate change include sea level rises, changes in precipitation patterns, long term temperature increases, and more extreme weather conditions. These issues are significant to Essex, as the low relief of some areas such as the Thames Gateway and Haven Gateway make them highly vulnerable to flooding.

Access to Services

- 3.44 The diversity of Essex is illustrated by the County’s range of environments from the highly urban centres to the rural hinterland each containing a vast array of people. Consequently levels of accessibility vary significantly across the County. The Accessibility Planning Strategy provides the opportunity to identify the range of issues and develop the appropriate solutions to resolve particular needs. With the expected growth, there is a unique opportunity to target accessibility issues in areas that are proposed for high levels of growth and regeneration.
- 3.45 A four-stage assessment process has been used to identify the accessibility issues across the County. The assessment process comprised the identification of existing information, strategic mapping audit assessments, “Accession” Mapping

Tool analysis and partnership working with the Local Accessibility Planning Partnerships (LAPPs). This process has led to the development of local area strategies to improve accessibility to certain services in specific locations (see Chapter 5 for further information and for a full version see the Accessibility Strategy). A summary of the analysis of access for healthcare, education and employment purposes across Essex is outlined below.

Access to Healthcare

3.46 Statistical analysis using the “Accession” tool demonstrated that access to healthcare (e.g. hospitals and GP surgeries) is at an acceptable level (e.g. within 30 minutes by public transport) within the RICs of Essex (see Figure 3.13). However, from further quantitative and qualitative analysis, pockets of poor access were identified for the elderly and those within areas with a high health deprivation index. These were mainly found in the Dengie Peninsula and the rural areas of the Epping and Tendring Districts (see chapter 5 for more information) and will assist how service needs can be met locally within such communities. Through the Local Accessibility Planning Partnership seminars a range of non-transport accessibility issues was also identified, including cost, time of appointment and travel information availability.

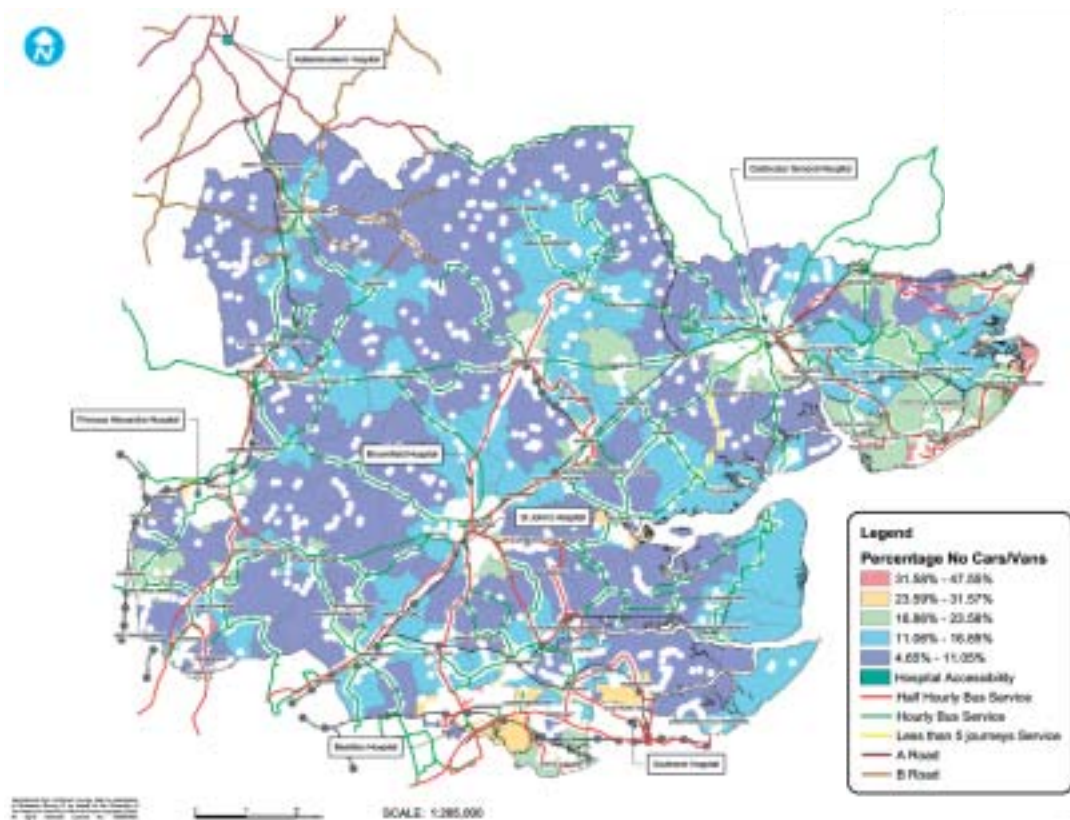


Figure 3.13: Access to Hospitals



Access to Education

- 3.47 Access to primary, secondary and Further Education sites has also been analysed. Children within compulsory education attending their catchment school and living over a set distance are entitled to free transport. Currently within Essex 301 schools are participating in School Travel Plans with 100% of schools to be signed up by 2008, ahead of the 2011 National target. Consequently the Accessibility Partnership focused on identifying the accessibility issues of post-16 year olds to Further Education.
- 3.48 Passenger transport is available within 30 minutes of a college or sixth form for urban areas (Accession). However, a low level of accessibility for populations of 16-19 year olds occurred within the rural areas of North Essex, and due to the socio-demographic structure some urban areas of the County also experienced a low number of students entering further education, particularly within the Basildon and Thames Gateway area. Alongside this are a number of non-transport cited accessibility problems, including the availability of desired courses and travel information. The level of accessibility to Further Education facilities is shown in Figure 3.14.

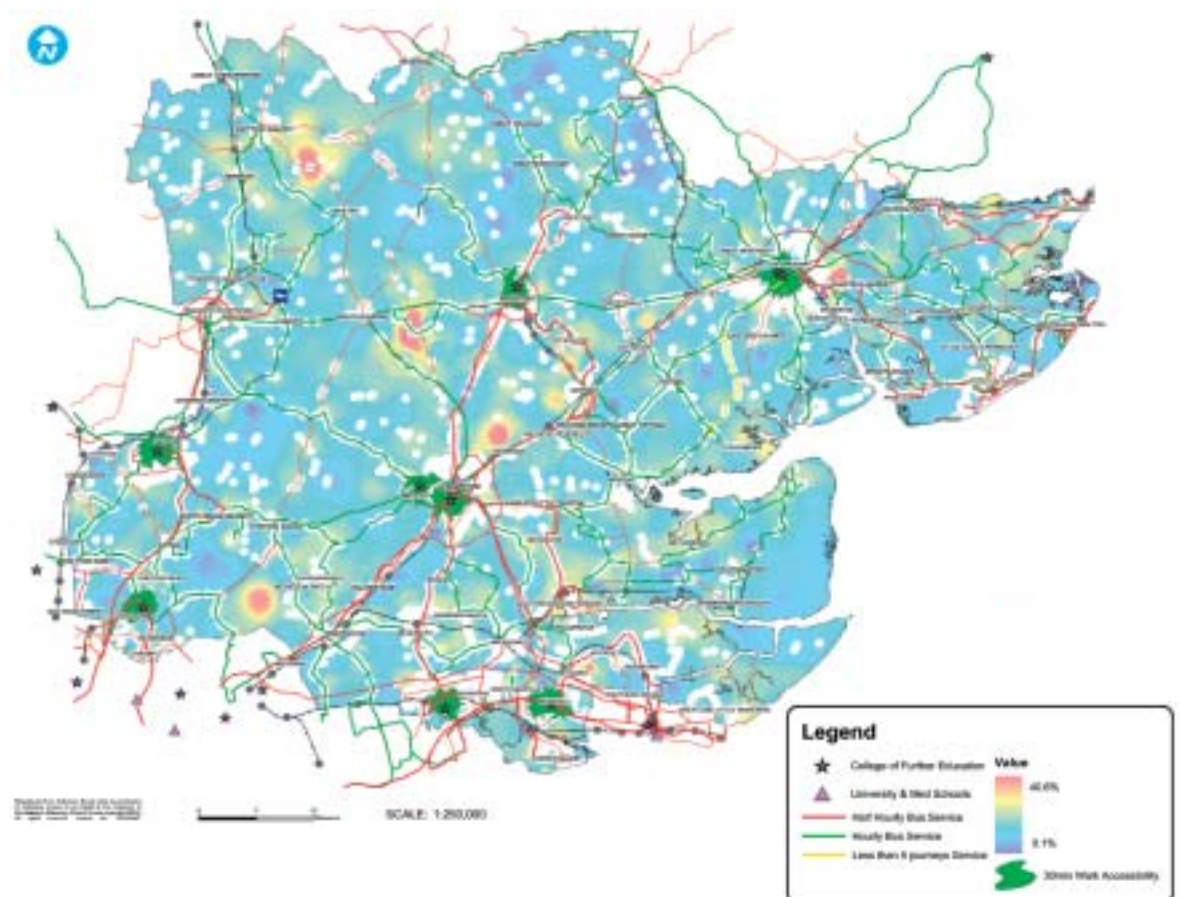


Figure 3.14: Access to Further Education Facilities

- 3.49 Considering the amount of growth, development and regeneration proposed for the County it is essential that current and future educational and employment opportunities are fully accessible to safeguard the economy of Essex and enhance people's life chances.

Access to Employment

- 3.50 Essex has a higher than average level of employment (in comparison with the national average) for those both in full and part-time work. Socio-demographic data, "Accession" data and partnership knowledge have been used to identify the levels of access to employment opportunities (see Figure 3.15). From quantitative and qualitative data analysis unacceptable pockets of access to employment opportunities by public transport were identified. These were within the rural areas of Tendring and the urban areas of Basildon and Harlow, which are the areas currently experiencing high unemployment rates and have low car ownership. It has been established that a number of non-transport issues were also causing accessibility problems, including the cost of travel (especially for those in long-term unemployment), a skills mismatch between the individual and type of nearby job and lack of travel information (see Chapter 5 for more information).

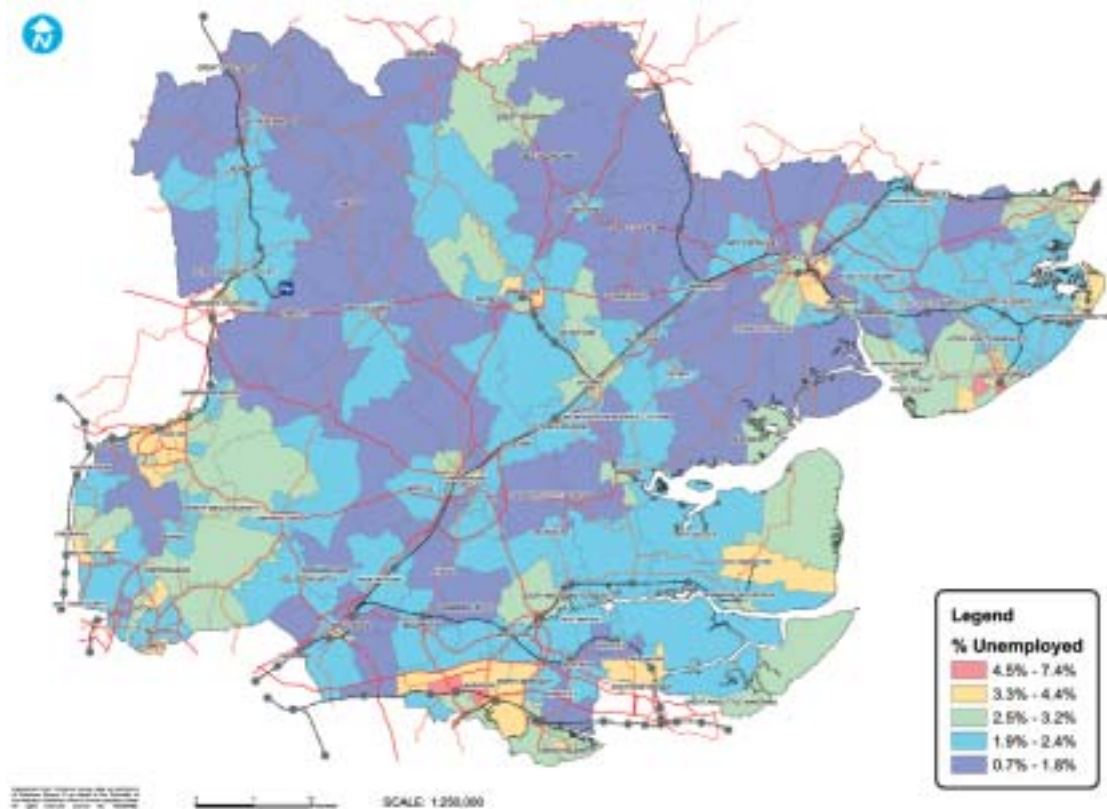


Figure 3.15: Unemployment Across Essex



- 3.51 The strategic and local challenges connected with accessing services are closely linked with land use planning and the location of development and the key services around the County. The issues identified above are significant to the County, and addressing them is vital to providing a high Quality of Life for the residents of Essex.

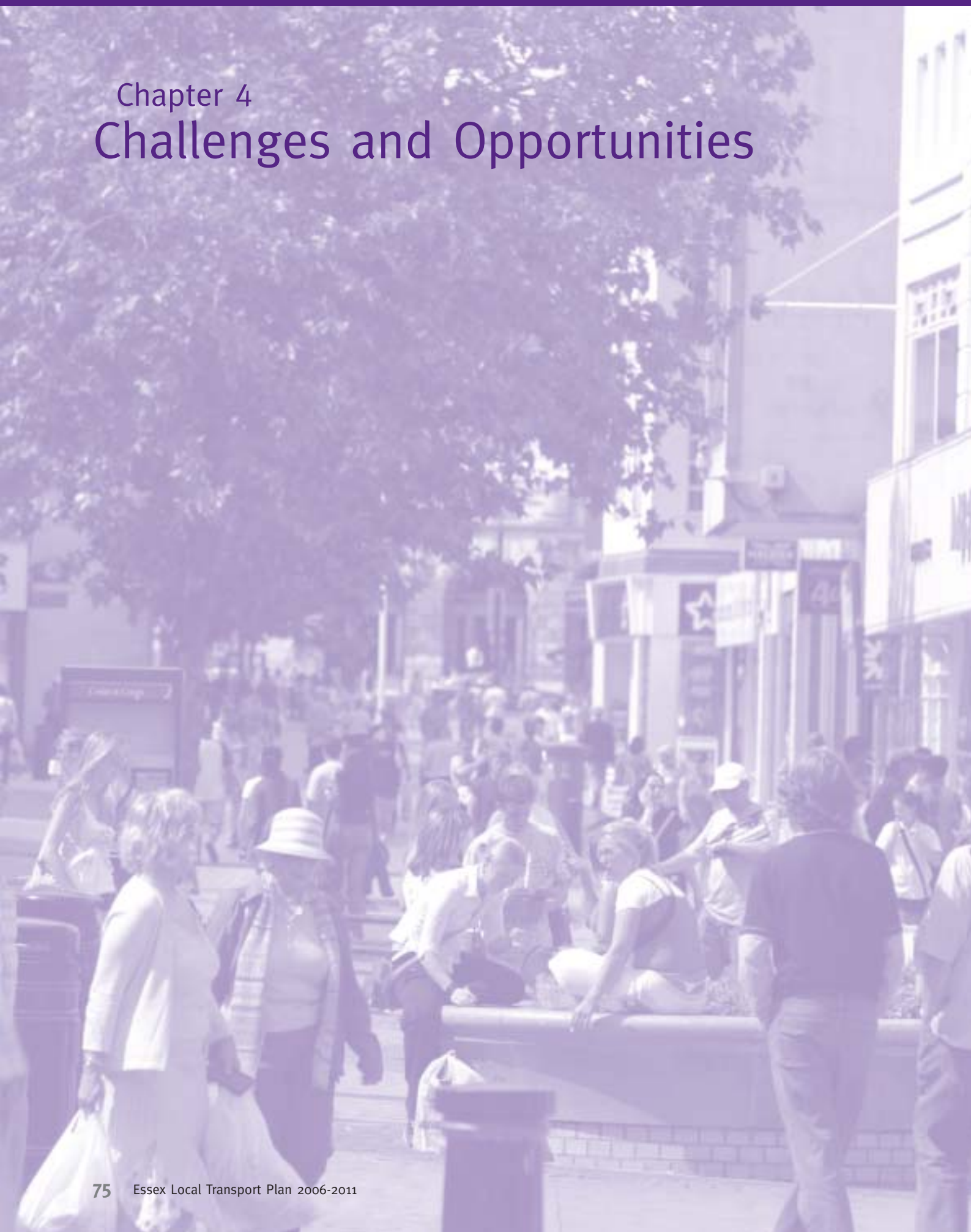
Summary

- 3.52 As demonstrated previously, Essex is a large and complex County and this LTP recognises the wide range of environmental, socio-economic and demographic factors that influence travel, to plan for transport systems which address both current trends and respond to the wider accessibility and sustainability agendas.
- 3.53 The key characteristics of the County that need to be addressed through this LTP are:
- The implications for transport of the centralisation of certain services such as health and Further Education, the evidence for which can be found in Figures 3.13 and 3.14 of this LTP.
 - The ageing population and the requirements for transport both in general terms and to access key services such as health.
 - The very diverse areas of Essex such as the Thames Gateway, Haven Gateway, Heart of Essex, Harlow/M11/Stansted corridor and rural north Essex, which are addressed fully in Chapter 6 of this LTP: Area Transport Delivery Strategies.
 - The commuting levels to London and the focus on assisting movements to rail stations, figures for which can be found in Chapter 4 of the LTP, under the sub-section of Economy and Growth.
 - Extensive use of the key road, rail and aviation corridors through Essex to connect other parts of the UK to London and Europe. Road and rail networks can be seen in Figures 3.7 and 3.9 of this LTP, whilst airport growth is addressed specifically in Chapter 5.
 - The varying levels of self-containment displayed both in large towns and the 5 areas and the relationship to the larger employers in Essex. This is explored in more detail in Table 3.1 and Figures 3.8 and 3.10, under the sub-section of The Essex Transport Network.
 - Modal split to schools, incorporating supportive data from the National Travel Survey 2003, which can be found in Figure 3.12 of the LTP.
 - The rich environmental diversity within the County, with an emphasis on air quality.
- 3.54 These characteristics bring with them a number of growing pressures and challenges for Essex which are explored in Chapter 4.



Wider Context

Chapter 4 Challenges and Opportunities



Challenges and Opportunities

Introduction

- 4.1 Essex County Council's second LTP is a robust, evidence-based strategy established on thorough and ongoing analysis of local transport challenges and opportunities that affect the County. Through the consultation processes on this LTP and on individual schemes it has been possible to identify the main problems experienced by local communities. In addition the County Council has been able to ascertain the key opportunities available, to solve these problems in delivering a better quality of life for the people of Essex.
- 4.2 At a strategic level, traffic volumes continue to grow by approximately 2% per annum, with the major urban centres being the focus of expansion, with many new housing and economic developments. Additionally, the major trip attractors such as ports and airports are generating more journeys within and through the County. The resulting congestion on the major roads and in our towns and villages makes journey times unreliable, reduces air quality, damages the environment and detracts from the overall Quality of Life. The challenges and opportunities facing Essex are detailed below in relation to the Shared Priorities and the County Council's other aims and objectives.
- 4.3 The strategic challenges outlined in this chapter have been identified through a number of different sources, including established datasets such as the 2001 Census, Annual Traffic Flow Monitoring reports and the National Travel Survey, as well as through information stemming from detailed consultation with stakeholders, cross-border working with other local authorities in the East of England Region, and Office of the Deputy Prime Minister (ODPM) growth proposals.
- 4.4 The current transport challenges within Essex have been identified using qualitative and quantitative approaches. The qualitative approaches has included workshops, meeting local partnerships and consultation with the public, stakeholders, the LTP Steering Group, transport operators and council officers. The quantitative methods are based on the results of a large number of significant studies, models and analysis carried out by Essex County Council. This qualitative and quantitative evidence provides a firm basis for the proposed interventions contained within the delivery programme.



Challenges	Opportunities
<ul style="list-style-type: none"> • Poor accessibility to services in some rural and urban areas; • Meeting travel needs of an ageing population; • Growing travel demand that is likely to be further exacerbated by the level of development proposed in the Draft East of England Plan; • Increased dependence on motorised transport modes, especially the private car; • Historic decisions regarding location of development and facilities necessitating more and longer trips to be made; • Impact of increased levels of freight on the road and rail networks; • Growing levels of congestion on both the strategic and local road and rail networks; • Location and centralisation of key services causing increased journey times and travel costs; • A trend of increased motorcycling casualties in recent years; and • Ongoing cost of road maintenance. 	<ul style="list-style-type: none"> • Building on the successes of the first LTP; • Linking economic growth with improved sustainable access to residential and employment sites; • Delivery of new mixed-use developments with sustainable transport access built in from the outset; • The potential to reduce the need to travel through land use policies to create more sustainable communities, growth in local employment and improved quality of life; • Funding opportunities arising from major development proposals including expansion of ports and airports; • Quality Bus Partnerships showing continuing passenger growth; • Maximising stakeholder involvement through strong partnerships as illustrated by the Thames Gateway South Essex Transportation Board, the Haven Gateway Partnership and the Local Accessibility Planning Partnerships; • New technology, transport interventions and analytical tools (e.g. the Accession model); • The introduction of intelligent transport systems for better road network management and enforcement (including the possibility of more radical demand management measures), and maximising the effectiveness of the Essex Traffic Control Centre; • Increasing flexible working practices and use of information and communications technology; • Making the most of strong communities in towns and villages; and • Maximising synergy of transportation aspirations with the developing Essex Local Area Agreement. • The development of the Rights of Way Improvement Plan (RoWIP). • Travel Planning with individuals and key organisations.

Table 4.1: Summary of Key Challenges and Opportunities in Essex

Accessibility

The Extent of the Challenge

- 4.5 Accessibility to a range of key services – education, employment, health and food retail is essential. Those without access to the car suffer from poor access to essential services which are vital to improving their Quality of Life. There is considerable scope to improve accessibility to a range of key services through improvements to public and community transport, walking and cycling.

Who it affects

- 4.6 Groups of people such as the old, the young and unemployed are most affected by poor accessibility. It is a serious problem for those without access to the car.

Where it affects

- 4.7 Accessibility varies across the County. It is particularly bad in rural areas where local services have disappeared and public transport services withdrawn. Furthermore in urban areas where the size of the population is difficult to support the necessary social infrastructure or provide a regular transport service access is also an issue.

Changing World and Environment

- 4.8 Through consultation, centralisation of key services has been identified as a key problem in Essex. For economic reasons, decisions have been taken by organisations which have centralised functions. This is particularly noticeable in the centralisation of health services around a few major hospitals, and when a major employer makes commercial decisions to relocate. For those without access to the car or public transport access to these services becomes a challenge.

Accessibility and Land Use Planning

- 4.9 The location of development can have a big impact on future accessibility. There has been a trend for major residential development and certain types of employment to move out to the suburbs. As services are dispersed it becomes harder to access these services on foot, by cycle and difficult to service by public transport. However, good land use planning can increase accessibility to services for existing communities by providing new local facilities e.g. schools, health centres, or provide an increased public transport service. Land use planning can also ensure that new developments are located on sites with good access for those without a car, for example near public transport nodes.
- 4.10 There has been a trend for residential dwellings to migrate from urban centres outwards towards suburban areas, alongside a shift to a service-based economy and a tendency for employers to relocate out of the main urban areas (particularly in the Basildon, Harlow and Tendring Districts). The location of these



important services plays a critical part in accessibility. Enabling and ensuring good public transport access is vital in promoting social inclusion, especially where rural service provision is declining (i.e. the closure of local post offices). The loss of local services can have dramatic impacts on accessibility in rural areas, with alternatives being effectively inaccessible without a car.

Opportunities to Improve Accessibility across Essex

- 4.11 Accessibility Planning (see Chapter 5) provides the framework for the County Council to assess more systematically whether people can get to places of work, healthcare facilities, education, food shops and other destinations that are important to them. It enables the County Council to develop and deliver solutions to accessibility problems that better meet the needs and priorities of local areas. Partnership working and dialogue through the Accessibility Planning Steering Group, the Local Accessibility Planning Partnerships and the East of England Regional Accessibility Planning Forum, are taking forward these issues (see Chapter 1 for more detailed information).
- 4.12 The Local Strategic Partnerships formed at a district level are central to the policies and strategies contained within the second LTP and critical to the delivery of the Accessibility Planning Strategy. The Local Strategic Partnerships involve senior representatives of organisations that provide important services to the public such as healthcare, community safety, transport and education. In addition, they have played an important role in identifying key areas in which accessibility is poor and will continue to participate as key contributors to the development of the Accessibility Strategy and action plans.
- 4.13 The County Council has developed a joined-up approach through the involvement of those organisations that influence the delivery of key services and secured their support and commitment to the accessibility planning principles.
- 4.14 Over the last LTP period, Essex County Council has delivered a wide range of schemes to improve accessibility to key services across the County. These include:
- Quality Bus Partnerships (QBPs) – to increase the frequency, reliability and attractiveness of bus services along key corridors;
 - Improved cycle and walking networks – to increase connectivity and encourage healthy and sustainable travel;
 - Establishment of Workplace and School Travel Plans to encourage modal shift and engender a cultural change; and
 - Developing VillageLink – to provide a demand responsive bus service in rural areas.

4.15 The County Council will build on the success of these schemes, by using accessibility planning tools and partnerships to deliver priority improvements. Some of the opportunities that will help the County Council to meet the targets for accessibility include:

- Improving passenger transport services and facilities through initiatives such as South Essex Rapid Transit System (SERT) (see Chapter 5) – to enable suitable access to key existing and future development locations in the Thames Gateway area;
- Developing the “KickStart” bus scheme – to provide strong links between the residential areas of Canvey Island and Chelmsford RIC;
- Developing the “Optimum 2” project at Colchester General Hospital - to provide improved travel information and better co-ordinated public transport services;
- Providing more and better travel information through the Essex Traffic Control Centre, including Real Time Passenger Information;
- Expanding the School Travel Plans initiative – to promote non-car travel to all schools within Essex;
- Developing new and improved transport interchanges – to reduce congestion and increase safety;
- Developing more extensive and safer cycle routes and installing more cycle parking – to make sustainable travel easier and more attractive;
- Improving access in rural areas through the Public Rights of Way Improvement Plan;
- Placing greater emphasis on the importance of the VillageLink project;
- Developing Quality Taxi Partnerships to provide safe and reliable private hire services; and
- Ensuring future development (both housing and economic) is concentrated in places where it can make the best use of a wide range of transport-related infrastructure and services, to reduce dependency on the car.

4.16 The large amount of growth identified for Essex over the next twenty years will provide the County Council with the opportunity to integrate the demands of accessibility planning into all transport, housing and business development proposals through the appropriate development control procedures. The County Council is already working in partnership with developers to maximise the levels of accessibility for all people through the use of the Essex Design Guide. For example, the County Council is working with English Partnerships on the Gardiners Lane South proposal in Basildon.



Congestion

Extent of the Challenge: Increased Congestion

- 4.17 Congestion has a serious impact on the economy by generating unreliable journey times and increasing vehicle emissions. It is estimated that traffic congestion costs between 15-18p per vehicle mile travelled in the UK and costs UK businesses about £19 billion a year. According to the RAC Foundation (May 2005) this will double to £30 billion by 2015 unless urgent action is taken.
- 4.18 The inter-urban highway network in Essex is under severe pressure, and is likely to be exacerbated by future traffic growth projections and planned residential and commercial expansions. The Essex Highway Network Capacity Analysis identifies available capacity on the County's network both now and in the future.
- 4.19 The analysis area comprises the Essex County Council and Southend-on-Sea Unitary Authority areas. It examined the possible impact of committed developments and highway network changes outside the study area where these could have a significant impact on traffic conditions inside the study area. Trip levels on the inter-urban road network will be largely unaffected by the County Council's continuing success in local travel planning due to the increase in trips arising from significant expansion in the Region's ports and airports.
- 4.20 During the inter-peak periods a number of inter-urban links were found to have capacity problems during the 2004 Base Year and the situation was exacerbated in the 2011 and 2021 Forecast Years due to the projected housing and employment allocations. A general overview is that with the 2021 Essex County Council and the Draft East of England Plan (DEEP) allocations, all the inter-urban links identified in the Base Year 'Do-Nothing' scenario as having Congestion Reference Flow (CRF) values of 0.95 and beyond will continue to have significant capacity problems by 2021 (see Figures 4.1 and 4.2).
- 4.21 Significant capacity problems were also found on some of the inter-urban links during the peak periods with the CRF values at or beyond 1.0 for the Base and Forecast Years. In addition a significant number of urban junctions were identified as having capacity problems from the qualitative assessment carried out by Essex County Council and Southend-On-Sea Borough Council Officers.
- 4.22 Buses are particularly sensitive to an adverse road environment. Congestion affects the reliability of journey times and creates delays to services that make public transport more expensive. The County Council's consultations have shown that operators are increasingly in need of more vehicles and drivers to cover the increase in journey times.

Congestion Present Day

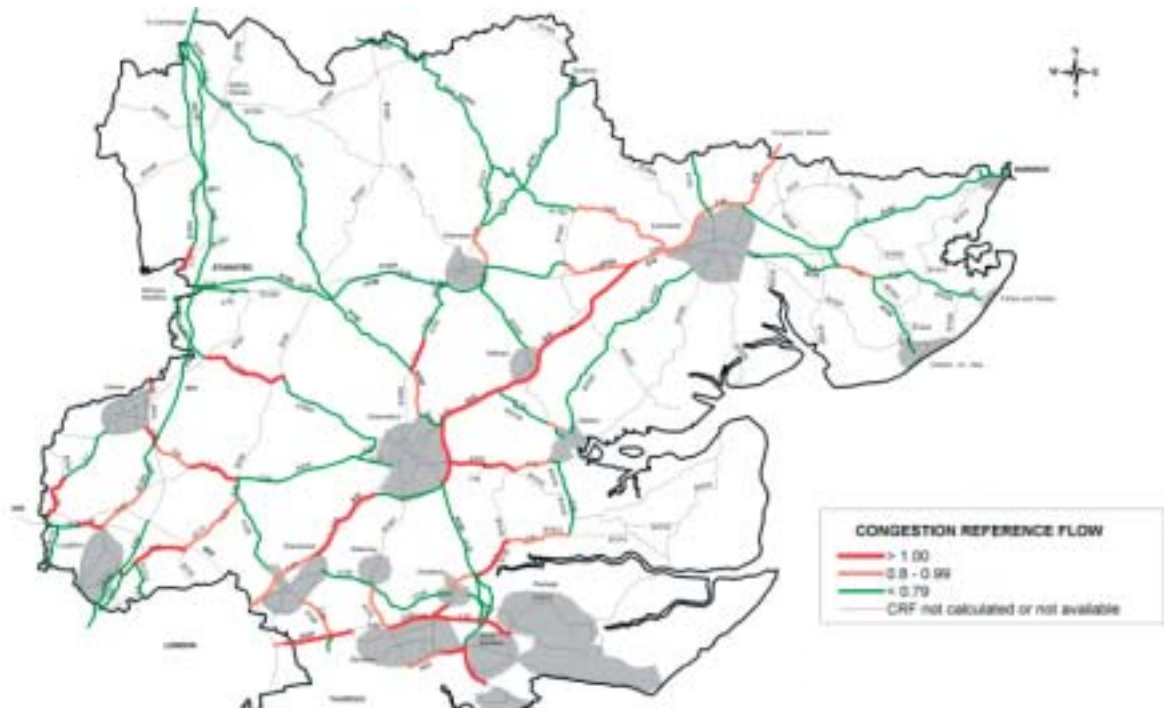


Figure 4.1: Network Congestion Now

Congestion – 2021 Do Nothing Scenario

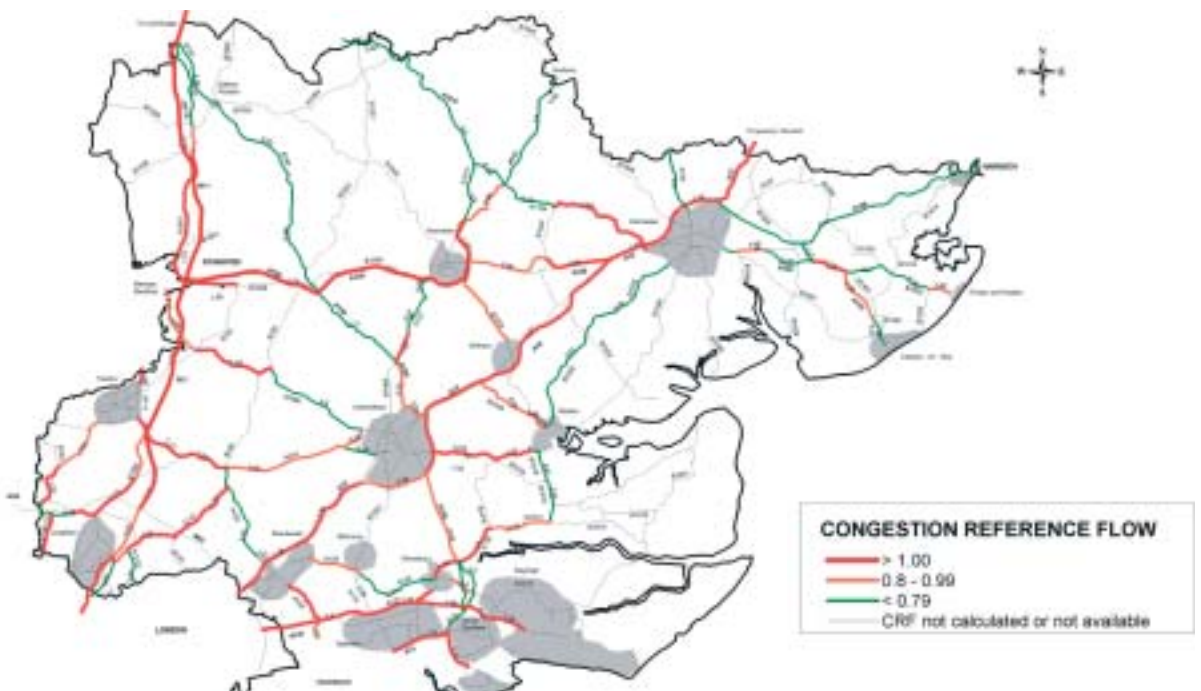


Figure 4.2: Network Congestion in the Future



- 4.23 Research undertaken by the Freight Transport Association shows that congestion creates serious problems when planning and scheduling freight deliveries, which affects the ability of operators to provide a consistent quality of service to customers and suppliers. This unreliability affects all road users, not just distributors, and is especially a problem for highly time-sensitive movements. Over 75% of haulage operators in Essex experience delays on more than 10% of their journeys as a result of network unreliability. This can ultimately lead to operators suffering from a 5% increase in their transport costs.
- 4.24 The problems associated with freight movement in Essex are diverse. For example, difficulties accessing destinations off motorways and trunk roads create a congested local highway network. Essex County Council is currently undertaking a freight study and initial results suggest that the main problems for operators can be summarised as follows:
- Congestion on the County's road and rail networks, especially when accessing the major international gateways of Stansted Airport, the Port of Tilbury and Harwich International Port;
 - Delivering goods to businesses in market towns that have very limited off-road servicing facilities;
 - Limited scope to transfer the movement of goods to rail;
 - Limited lorry parking and facilities;
 - Significant road-based movement of domestic and international goods, of which 34% delivered throughout the UK originates in Essex;
 - Local access to businesses and industrial areas is often through congested town centres and/or residential areas; and
 - The prosperity of Essex creates a high demand for goods to be transported throughout the County.
- 4.25 Managing congestion in Essex is a major challenge, particularly along the radial routes into the County's RICs and on the main transport corridors between these significant urban centres. In addition, 'school run' traffic exacerbates morning peak hour congestion as school starting times are the same countywide, resulting in heavier congestion during peak times.
- 4.26 Congestion is expected to deteriorate in the future due to significantly higher levels of housing and economic development. Figures 4.1 and 4.2 show how congestion affects the roads in the County now and in the future with the additional housing proposed in the Draft East of England Plan (DEEP).

Causes of Congestion

- 4.27 There are a number of underlying factors causing increasing congestion across the County, including:
- Growing use of cars relative to other forms of transport;
 - Land use and development changes;
 - Road and rail infrastructure constraints;
 - Housing and economic development; and
 - Unattractive public transport alternatives.

Opportunities to Manage Congestion

- 4.28 While congestion is an ever-increasing issue for Essex, it is one that the County Council and the DfT can anticipate and with appropriate funding attempt to manage. Therefore a number of schemes and measures are planned for the major urban areas in the County (i.e. the four RICs) with initial focus on Chelmsford and Colchester. For example, a Park and Ride strategy has been developed to implement a number of sites in these two urban areas, the first of which, in Chelmsford, was opened in March 2006. In addition, the Essex Traffic Control Centre was opened in July 2004 and represents a new era in actively managing traffic for the County and providing journey information to transport users. This technological solution has proved effective in managing traffic, and its scope and capabilities are being expanded.
- 4.29 The Traffic Management Act 2004 places a duty on local authorities to maintain an expedient flow of traffic. Essex County Council has installed a system which enables journey times to be monitored between and within urban areas. In addition the system provides essential information to control the network and to maximise the network's performance. Under this Act, the County Council wishes to be a pilot authority for the introduction of street works permits in order to better control events on the network. The County Council will also undertake the enforcement of moving traffic offences at the earliest opportunity.
- 4.30 Investments in high-technology network controls and incident management mechanisms reinforce Essex County Council's commitment towards urban demand management. The County Council recognises that building additional road capacity is only a short-term solution towards relieving congestion, and should only be an option where the economy of the Region will benefit and is shown to be the only way forward in relieving congestion.
- 4.31 With these improvements in place an opportunity is presented for Essex County Council to be at the forefront of network management operations, armed with a database of historical and real-time information that will enable improvements to be made proactively, rather than reactively.



- 4.32 There are opportunities to make bus travel more attractive by increasing the reliability and frequency of services and the general standards of passenger comfort and amenity through the successful implementation of over 35 Quality Bus Partnerships across the County. The demand for this is further reinforced through the consultation process, where 72% of respondents felt encouraging bus and rail use would become of the most successful ways of tackling congestion.
- 4.33 The County Council will continue to work with all developers using the award-winning Essex Design Initiative to locate new developments in the most logical and appropriate locations and to allow for the provision of a high-quality public transport network that is attractive for both residents and operators.
- 4.34 Essex County Council has recently published two walking and cycling documents. These are the Designing for Pedestrians: A Guide to Good Practice and Designing for Cyclists: A Guide to Good Practice. These outline the minimum standards required when constructing and improving walking and cycling routes. The guides have evolved over a number of years, taking into account legislation and latest guidance, establishing the right environment for walkers or cyclists. Both guides have specific guidelines for any potential user, ranging from those experiencing mobility or impairment to accomplished cyclists who need a fully accessible and convenient network. These guidelines have been used to develop high quality walking and cycling schemes.
- 4.35 It is clearly important to maintain and increase the role of cycling and walking, especially for short journeys. A small shift away from car use for both trips to school and work would see a substantial increase in cycling and walking with consequential health benefits. By targeting children, Essex County Council can seek to foster a cultural change in the travel habits of future generations.
- 4.36 Demand restraint measures complement network management and can have a significant impact on people's travel choices. These range from traffic management features such as one-way streets to fiscal measures such as parking charges and road pricing. The County Council will continue to work in partnership with each District and Borough Council to develop coherent parking regimes to ensure that car drivers are encouraged to change their travel choices.
- 4.37 In summary, the opportunities for tackling congestion fall into four main categories and these are taken forward in the transport strategy (Chapter 5):
- Provide alternatives to the car, especially solo car driving, including better facilities for pedestrians, cyclists and public transport users;
 - Locate new development on public transport corridors;
 - Influence travel behaviour;
 - Manage demand; and
 - Selective road widening and new infrastructure where appropriate.

Air Quality

Extent of the Challenge: Deteriorating Air Quality

Introduction

- 4.38 The Environment Act 1995 places a duty on Borough and District Councils to periodically carry out air quality assessments of seven key pollutants within their area. The process of Local Air Quality Management now involves two stages of assessment, with Detailed Assessments being carried out if a potential air quality problem is identified. If an area is identified as having the potential to exceed the objectives, an Air Quality Management Area (AQMA) is declared and further assessment carried out. An Action Plan is then produced with the aim of improving air quality within the area of concern.
- 4.39 Essex County Council is actively involved in the Essex Air Quality Consortium that assists in the delivery of the air quality objectives at a local level and has worked together to produce the air quality assessments. This partnership comprises the District and Borough Councils, Essex County Council, Environment Agency, BAA plc and the University of Essex.
- 4.40 The County's air quality assessments have shown road transport to be the main source of air pollution in Essex, with main pollutants of concern being Nitrogen Dioxide (NO₂) and particulates (PM₁₀). The most significant transport related air quality problems are associated with roads that regularly experience congestion and those which have high traffic flows. Additionally, the 'canyon' characteristics of some streets in the urban areas can result in air quality problems where traffic flows are relatively low. The current AQMAs and pollution hotspots in Essex are listed in Table 4.2 (Air Quality Hotspots).
- 4.41 Concentrations of air pollution in the County are measured using two methods;
- Nitrogen dioxide diffusion tube monitoring sites in all of the Districts / Boroughs.
 - Automatic continuous monitoring of a range of pollutants in Basildon, Braintree, Brentwood, Chelmsford, Colchester, Harlow, Tendring and Uttlesford.
- 4.42 The results of the air quality assessments in Essex are highlighted in the Transport Delivery Areas (please see Chapter 6 for further details).



District / Borough	AQMA / Air Quality Hotspots	Pollutants	Current Status
Basildon	A132 / A1321	NO ₂ / PM10	Additional monitoring being done. AQMA unlikely at this stage.
Braintree	None at present		
Brentwood	A12 / M25 Junction	NO ₂	AQMA declared January 2005
	M25 (Nags Head Lane)	NO ₂	AQMA declared January 2005
	A12 (Greenshaw)	NO ₂	AQMA declared January 2005
	A12 (Warecot Road)	NO ₂	AQMA declared January 2005
	A12 (Hey Bridge)	NO ₂	AQMA declared January 2005
	A12 (Ingatestone)	NO ₂	AQMA declared January 2005
	A128 / A1023 (Wilson's Corner Junction)	NO ₂	AQMA declared January 2005
Castle Point	None at present		
Chelmsford	Army and Navy Roundabout	NO ₂	AQMA declared December 2005
Colchester	Mersea Road	NO ₂	AQMA declared May 2001
	Brook Street	NO ₂	AQMA declared January 2006
	Cowdray Avenue	NO ₂	High concentrations but no need for AQMA at present.
	Marks Tey A12 / A120 Junction	NO ₂	High concentrations but no need for AQMA at present.
Epping Forest	A121, Epping High Street	NO ₂	High concentrations but no need for AQMA at present.
Harlow	A414, other busy roads in District	NO ₂	High concentrations but no need for AQMA at present.
Maldon	None at present		
Rochford	Eastwood Road / High Street Junction, Rayleigh	NO ₂	Additional monitoring being done. AQMA unlikely at this stage.
Tendring	A120	NO ₂	Likely impact with development of Bathside Bay and resulting increase in freight traffic.
Uttlesford	Busy routes in Saffron Walden	NO ₂	High concentrations but no need for AQMA at present.

Table 4.2: Current AQMAs and Air Quality Hotspots in Essex

4.43

Congestion creates high levels of air pollution as queuing traffic, especially in more restricted or confined spaces, generates higher concentrations of vehicle emissions and therefore poor air quality. Air Quality Management Areas are declared (located in close proximity to settlements) where pollutant levels exceed government thresholds. At present there is only one AQMA (Mersea Road, Colchester) with an Air Quality Action Plan. The Colchester Air Quality Action Plan has been developed in partnership with Colchester Borough Council and officers from environment and transportation departments at the County Council, and has been well integrated into the development of the second LTP. A further eight AQMAs have been formally identified, and are located in the Brentwood, Chelmsford and Colchester Districts, as depicted in Figure 4.3. Opportunities to improve air quality at these locations have been identified in the LTP programme.

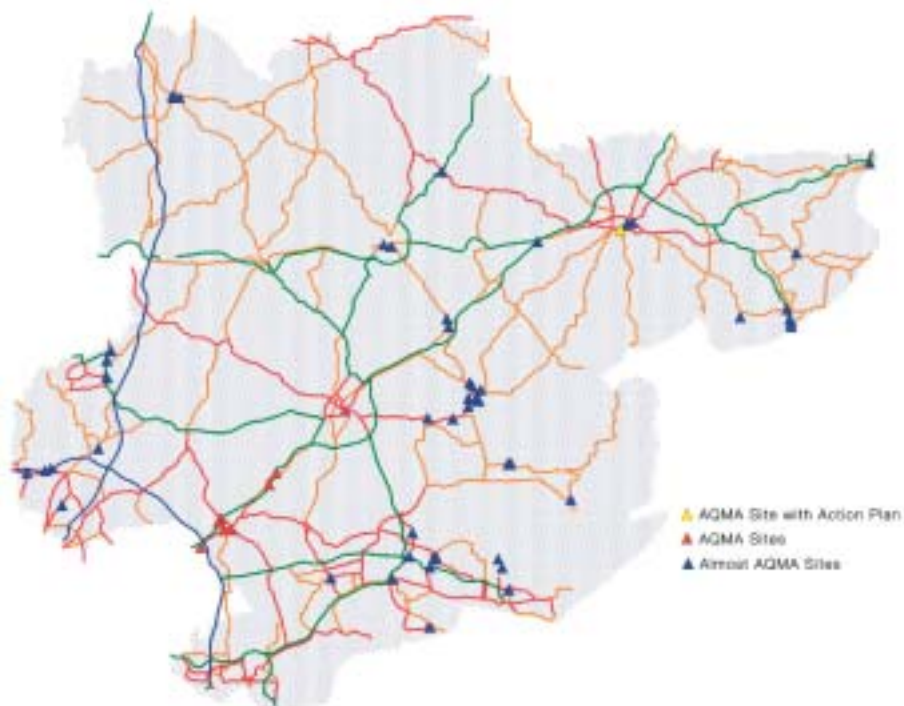


Figure 4.3: AQMAs (Air Quality Management Areas) within Essex



Opportunities to Improve Air Quality

- 4.44 Tackling congestion through the second LTP will go a long way towards tackling air quality and climate change. The opportunities presented for improving air quality are incorporated in the AQMA (Air Quality Management Area) action plans that have been, and will continue to be developed by the District and Borough Councils in partnership with Essex County Council and other relevant agencies. The action plans attempt to resolve air quality problems in the designated areas. This may be achieved by a number of measures, including the appropriate routing of freight traffic, minor traffic management interventions such as reducing speed limits, and encouraging modal shift away from the private car and onto public transport or other sustainable modes. Through the use of air quality monitors linked to the Essex Traffic Control Centre, Variable Message Signs and other methods, it is also possible to divert traffic away from areas at times when air quality is particularly poor. Additionally, there is considerable scope to work with bus operators to improve the average age of the bus fleet and seek a modern bus fleet that meets the highest emissions standards.

Safer Roads

Extent of the Challenge: Risk of Accidents

- 4.45 There are three key elements that may contribute to the occurrence of an accident: the road user, the vehicle and the road condition. Through high quality roads and streetscape the County Council can influence the road environment and the way that road users use it. In addition, the types of vehicles driven can be influenced through education and supported through an effective working relationship with the Essex Police Traffic department.
- 4.46 As Figure 4.4 illustrates, the County Council has been working towards achieving the Government's targets of reducing the numbers of casualties resulting from road accidents by 2010 when compared to the 1994/98 baseline. Through a wide range of activities to address road user behaviour and a programme of works to identify and treat accident locations on the County's roads during the course of the first LTP, Essex County Council is now well ahead of targets for slight injuries and KSI (Killed and Seriously Injured) casualties and is also on track for the child KSI target. Looking at the long term trend, Essex County Council has made good progress towards the 2010 targets and, if the good progress already made can be maintained, or even improved upon, Essex roads will be markedly safer. Reducing the number of more serious casualties (KSIs) is also a key Local Public Service Agreement (PSA) target and the key focus for the new Road Safety Strategy.

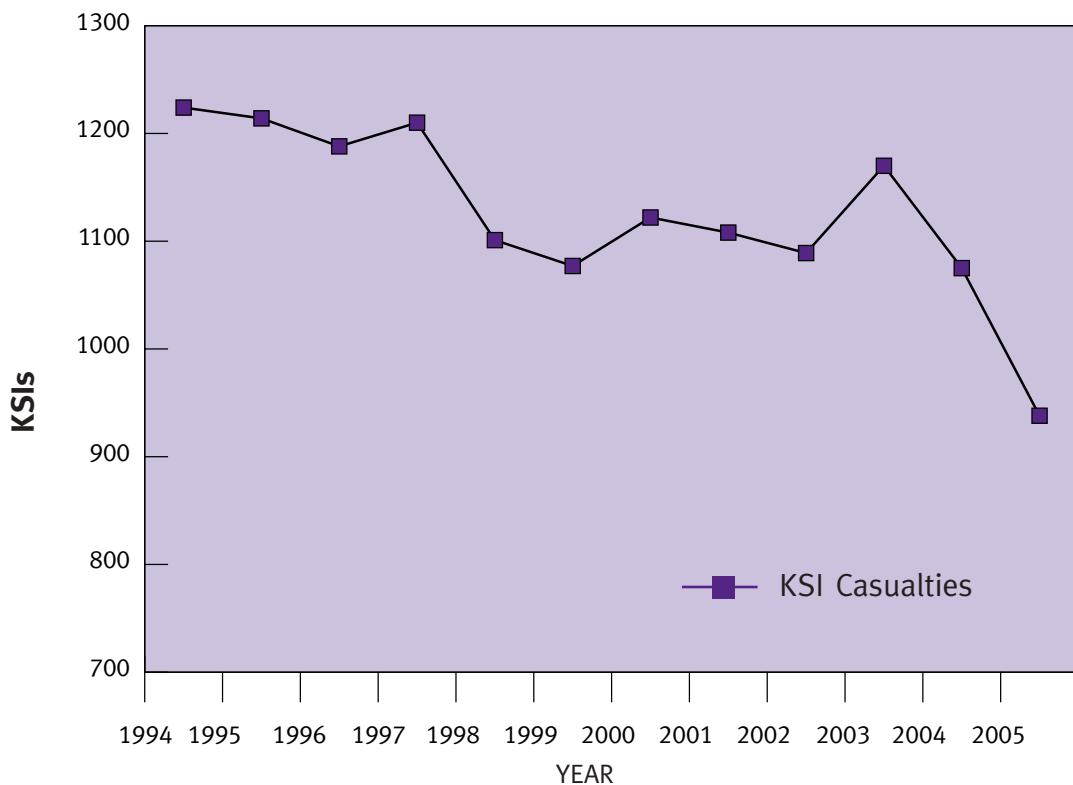


Figure 4.4: Essex Accident Rate

- 4.47 A review of KSI accidents has identified the groups most at risk – motorcyclists and young car users – and the behaviours most likely to contribute to KSIs – inappropriate and high speeds, decreased use of seat-belts, and drinking and driving. By identifying these at-risk groups, efforts to tackle accidents can be concentrated in the areas that will have the greatest effect and maximise value for money.
- 4.48 Results from Essex County Council’s stakeholder consultations showed that 71% of respondents felt the biggest safety risks involved drivers under the influence of alcohol and also identified the need for a closer partnership with Essex Police, as most of the identified accident problems have an enforcement dimension. Many other partners, such as the Essex Motorcyclists Forum, also have an important role to play.

Opportunities to Create Safer Roads

- 4.49 Essex County Council has had a comprehensive accident reduction engineering programme for many years, which has been primarily focused on reducing the numbers of accidents. Many of the existing sites have been successfully treated and it is becoming increasingly difficult to find sites which can be treated with low cost solutions. The surface treatment programme continues to provide significant accident reductions and value for money and so will continue to be funded. The extra funding being provided by the County Council for the special



maintenance programme will contribute to a reduction in accidents of all severities and provide added value to the road safety funding. However, other resources are increasingly focused on identifying sections of road or junctions where a higher proportion of KSI accidents are occurring. This may require higher cost solutions to ensure longer term accident reduction benefits.

- 4.50 The KSI review has identified a number of cultural and behavioural issues which need to be addressed to reduce KSI casualties. A range of initiatives has been planned to target these through education, training and publicity with a wide range of partners. Key groups have been set up to help guide the activities and to provide a direct involvement and engagement with each user group. These include; The Motor Cycle Forum, the Young Driver Forum and the Child Safety Audit group.
- 4.51 Child safety will continue to be a high priority and work has been undertaken to identify the most at risk communities where child accidents are highest. These areas form priority locations for linking in with regeneration projects, 20 mph zones and home zones. These projects will be supported by community involvement in road safety education initiatives.
- 4.52 Following an excellent response from schools in Essex so far to produce their School Travel Plans, the remaining schools will be targeted in line with central Government's target for 2010. This will not only provide impetus to encourage sustainable journeys to school, particularly in congested peak periods, but will also support targets for road safety. Engineering measures to support children's safety will be implemented where there is a need identified through the travel plan process.
- 4.53 The Road Safety Strategy has been developed to detail the activities that Essex County Council and its partners will be undertaking in the next five years. It aims to continue to provide a safe environment for all road users and to target specific accident problems.

Maintenance

Extent of the Challenge: A Deteriorating Asset

- 4.54 Essex has 7,560 km of carriageways, 6,500 km of Public Rights of Way, and 1,400 structures (including culverts, subways and retaining walls) to maintain.
- 4.55 As a result of a historically low investment, the carriageway and Public Rights of Way networks have largely deteriorated faster than they can be repaired, with the effect that over time the network asset has generally declined in quality. This has created a backlog of maintenance works which needs addressing urgently to increase safety and accessibility, whilst reducing congestion. Better maintained carriageways and pathways also benefit cyclists, pedestrians and bus users, all of which will lead to improved Quality of Life for the people of Essex.
- 4.56 In addition to this general countywide problem, maintenance must also address a number of other factors. These include:
- Increasing levels of traffic, including an increase in HGVs, which create additional wear of the road infrastructure, resulting in faster than expected deterioration;
 - Increasing numbers of abandoned vehicles, creating additional pressure on resources to remove them promptly from the network to avoid environmental damage and safety issues; and
 - More frequent extremes of weather over recent years. For example, icy conditions during winter months, high summer temperatures and ingress of water during abnormally wet weather, all result in accelerated deterioration. This is compounded by the unique geological conditions of “Essex Clay” across the County. Icy weather also increases the need for Winter Maintenance, a statutory requirement of Highways and Transportation, which involves gritting and snow ploughing the network to keep traffic flowing safely.
- 4.57 Adverse weather conditions have also contributed to the decline in quality of the County’s structures; for example, high rainfall has caused an increase in ‘scouring’ of bridge foundations at river bridges, undermining the integrity of the structures and necessitating repair work to prevent further damage.
- 4.58 There are over 1,400 structures including bridges, culverts and brick arches in Essex. Many of these are very old, typically constructed during the 18th, 19th and early 20th centuries. Over 200 of these structures have been assessed to be below full loading standard. Many other structures do not comply with modern safety standards such as geometric layout and parapets. In addition, these substandard structures may not have associated footway provision, resulting in poor accessibility and reduced safety for pedestrians.



Opportunities to Efficiently Maintain the Assets

- 4.59 As a result of the problems outlined above, Essex County Council is imposing weight restrictions and monitoring its structures to safeguard the public. However, opportunities exist to bring structures up to modern loading capacities and to add in safety features such as improved geometric design and parapet construction when reconstructing and refurbishing those structures identified as requiring work.
- 4.60 Essex County Council has recently introduced a new approach to the maintenance of the highways of Essex. To address the backlog of maintenance works associated with the sustained lack of funding, the County Council is embarking upon an ambitious and innovative New Maintenance Initiative. The New Maintenance Initiative is based on annual road condition surveys, which give an indication of the current state of the network. Roads are now classified as green (satisfactory condition), amber (about to fail) or red (critical). Roads classified as red are targeted for urgent maintenance repair work, with amber roads targeted to prevent future failures.
- 4.61 To address the lack of investment in the past, the County Council has provided a major injection of funding of an extra £45 million over a three year period (2005 to 2008). The aim of this new strategy is to transform the entire street scene of footways, roads, signs and lines, with a fence-line to fence-line approach, to provide a high-quality network for all users. In addition, this will positively impact on targets to increase the attractiveness of public transport and encourage more sustainable travel patterns.
- 4.62 When refurbishing or reconstructing structures there is the opportunity to use public art within the design of the work, thereby improving the Quality of Life of users and also masking larger concrete foundations and parapets. Other opportunities exist when refurbishing older structures to bring back original features such as brick arches, giving added heritage value in areas where local history is a key concern. In addition, reconstruction projects give the opportunity to build in greater accessibility, such as footway and cycleway provision where appropriate.
- 4.63 A refurbishment programme has been established for maintenance of traffic control and information systems to improve their reliability. A new programme of annual inspection has been developed for the Public Rights of Way Network (PRoW). 20% of the PRoW network will be inspected and targeted for maintenance each year as part of a drive to make Public Rights of Way more accessible, thus improving performance on the County Council's target Best Value Performance Indicator 178.

Quality of Life

Quality of public spaces and streetscapes

- 4.64 Essex, like the majority of Authorities, is affected by problems such as litter, graffiti, vandalism, poorly maintained footpaths, cluttered or damaged street furniture, some poor quality buildings facing the streets and the impacts from traffic. Some of these are particular problems for the new towns of Harlow and Basildon that were planned and built in the 1950s.

Landscape and biodiversity

- 4.65 Major transport infrastructure such as new roads can, unless carefully planned, have significant impacts on the surrounding environment. Impacts include visual intrusion, the release of emissions into the air, the use of extensive areas of land leading to severance of communities and impacts on the biodiversity of the developed areas. These impacts need to be balanced against the benefits for communities, of which traffic reduction is one example.
- 4.66 Substandard public transport information and poor facilities for walking and cycling are often associated with poor design and maintenance of many public spaces. These work against the aim of promoting sustainable travel choices and improving accessibility for those without access to a car and must be tackled in order to remove their negative impacts.

Community safety, personal security and crime

- 4.67 Crime and fear of crime feature as important issues in all the community strategies and are the focus of the local Crime and Disorder Reduction Partnerships and local community safety strategies. Real and perceived personal safety concerns can be a problem, especially on rarely trafficked roads and footpaths and at isolated public transport interchanges. Anti-social behaviour is also a considerable problem in several town centres, especially during the hours of darkness.
- 4.68 Shortcomings in the design and maintenance of public spaces, public transport infrastructure and walking and cycling facilities affect the public's perception of personal security. Safety is a key aspect of 'liveability', particularly in disadvantaged communities. The County Council aims to reshape both the physical and cultural environments of some of these areas to make them safer and more accessible, thus encouraging and enabling people to walk and cycle more frequently.



Healthy communities


- 4.69 Physical activity levels are low in the UK. Government research shows that only 37% of men and 24% of women meet their current suggested guidelines. Sickness and absenteeism is estimated to cost Britain over £11 billion per annum. An important way to realise the vision for healthy communities is to tackle the levels of inactivity and associated obesity. Adult obesity in Essex has increased from 13% to over 20% over the last 10 years (a rise consistent with the national picture). High dependence on motorised vehicle use, such as private cars, exacerbates this problem. In addition, walking and cycling should become integral in people's daily lives playing a crucial role in increasing physical activity and consequently improving people's health.
- 4.70 Essex County Council will continue to improve the level of health throughout the County by implementing more School Travel Plans, to ensure that all educational establishments are covered by 2011.

Sustainable and prosperous communities

- 4.71 With many small settlements in a largely rural County, Essex has many people who live long distances from work and essential services such as shops, education and healthcare. Even in places that have relatively dense mixed-use developments, such as the Thames Gateway, access to services can be a problem for many disadvantaged groups. These include unemployed or mobility impaired people who do not have access to a private car and/or cannot use public transport services. Over 55% of the respondents to the second LTP consultation stated that appropriate planning of new development is vital to make them highly sustainable. As a result, the County Council will maximise sustainability through partnership working with all developers to ensure that each development complies with the Essex Design Guide.

Noise

- 4.72 An estimated 30% of the UK population suffer from noise levels that health experts consider to be unacceptable. In urban areas this figure is far higher and the EU have introduced policies aimed at limiting exposure to noise.
- 4.73 The EU Directive on the Assessment and Management of Environmental Noise will come into force during the second LTP period. A process similar to that of Air Quality Management, will require local authorities to develop Noise Management Strategies and Action Plans to reduce exposure to noise from transport sources, control the deterioration of the noise climate in the RICs and protect existing quiet areas of the County.

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- 4.74 Noise pollution and vibrations vary considerably, with those living in proximity to heavily trafficked transport routes (i.e. rail lines, roads, and flight-paths) exposed to significant negative impacts on both their natural and built environments.
- 4.75 The County Council will aim to reduce traffic related noise in several ways. For example noise pollution can be greatly reduced through targeted maintenance renewal of carriageways with low-noise surfacing. At the same time, better management of the road network through the Traffic Management Plan will deliver noise reduction benefits by ensuring the right vehicles use the right roads. In addition, the implementation of the Sustainable Distribution Strategy through a mix of information, signage and restrictions means that it will be possible to deter HGVs from using unsuitable routes.

Climate Change

- 4.76 Average central England temperatures have risen by approximately 1.3°C over the last 100 years. By the last decades of this century, global and UK average temperatures are forecast to continue to increase. Emissions of greenhouse gases are generally accepted as the cause of this increase. While increased energy efficiency and a decline in manufacturing have decreased emissions from all other sources, road transport emissions have increased by approximately 10% since 1990. This is despite technological advances that have increased fuel efficiency, reflecting the increased volume of road transport.
- 4.77 This LTP will respond to the challenge and responsibilities of climate change through both prevention and mitigation measures. For example, the long-term strategy promotes a reduced reliance on greenhouse gas emitting fuels. The County Council's commitment is illustrated by the extensive use of hybrid vehicles within its fleet as well as providing incentives for sustainable transport through the use of discounts and promotions.
- 4.78 In the future climate change could potentially cause problems in terms of highway and footway maintenance. Rising temperatures could further accelerate the deterioration of the County's assets, resulting in poorer quality surfaces for all users of highways and footways. The increased risk of flooding, particularly in low-lying areas, is a further threat to maintenance activities. These are being considered through the Transport Asset Management Plan (TAMP).



Enriching Community Environments through Transport

- 4.79 One of the aims of this LTP is to develop a transport network that can contribute to an improved Quality of Life for the people of Essex. To successfully achieve this objective the County Council's aims are outlined below:
- Improve the quality of public streetscapes;
 - Reduce the impacts on landscapes and biodiversity;
 - Enhance community safety;
 - Support healthier lifestyles;
 - Reduce the level of noise; and
 - Make substantial contributions to reductions in greenhouse gas emissions,
- 4.80 Further details of how the County Council is acting to improve the Quality of Life for Essex residents can be found in Chapter 5.

Economy and Growth

Extent of the Challenge: Development Pressures

Housing and Population Growth

- 4.81 Of the four major National Growth Areas designated by the Government, two directly impact on Essex: namely the Thames Gateway and the M11 corridor (London-Stansted-Cambridge-Peterborough). These areas are pivotal in delivering a significant amount of the South East's housing and economic growth, as established by central Government. In addition to these identified growth areas, several other major sub-regional areas within Essex also face pressures to accommodate additional dwellings and to regenerate their inner urban areas including the Haven Gateway. To this end the emerging DEEP has stipulated that over 131,000 houses be built in and around Essex (inc. East Hertfordshire) by 2021. It has been estimated that these additional dwellings would generate over half a million extra trips per day on the County's network.
- 4.82 Land use and development changes have and will continue to have a significant impact on travel behaviour, use of the car and increasing congestion. Past growth has put further pressure on the transport system with increased road traffic and rail usage. There have been some improvements in public transport but much remains to be done. Investment in the transport network has not kept pace with the scale of development. Making good this deficit lays the foundation for achieving future growth but new infrastructure must go hand in hand with it.

- 4.83 Additional pressures from developments will exacerbate these existing problems already being experienced across the County, such as growing car use and ownership, the result of which will lead to increased congestion and less reliable journey times.

Airport Growth

- 4.84 The Future of Air Transport White Paper (December 2003) produced by the Government stated that a second runway at Stansted should be provided to supply further airport capacity for the South East. Stansted Airport already serves nearly 22 million passengers per year and has planning permission to grow to 25 million. An application to Uttlesford District Council (the determining planning authority) is expected by mid 2006 for expansion to at least 35 million passengers per annum (mppa). Serious concerns remain that there will be a repeat of the previous three phases of growth at Stansted which have each been based on forecasts and planning assumptions that later transpired to be so different in reality that the transport impacts were seriously misunderstood and not properly planned for. Given the uncertainties surrounding the nature of air traffic growth the County Council will require BAA plc to carry out a range of sensitivity tests within the transport assessments required, to support planning applications for airport expansion. Sensitivity tests will help identify the alternative or additional surface access improvements that will be required if the nature of the airport expansion proves to be markedly different from BAA's central forecasts. The County Council will use the opportunity presented by the planning application stage to secure transport infrastructure and service improvements to mitigate the impact on existing network users, and to continue the reduction in the mode-share of car-borne trips to the airport.
- 4.85 An application for a second runway is expected by 2007. This additional runway could increase capacity to over 80 million passengers per annum. There are clear local and national economic benefits to be gained from a measured and controlled expansion. New jobs would be created and it would raise the status and profile of Essex nationally and internationally. On the other hand, there are significant Quality of Life and environmental impacts relating to the proposed growth. It would require the take-up of vast tracts of land, create noise, and worsen air quality (from both aircraft emissions and more vehicle traffic accessing the airport).
- 4.86 If the planned expansion were to go ahead, increased pressure would be placed on the County's road and rail network through the greater demand to access the airport. It would also increase pressure on surrounding neighbouring authorities' road and rail networks, particularly Hertfordshire. Increased air traffic will also create further environmental damage in the form of air and noise pollution; decreasing the Quality of Life for many residents surrounding the airport. Such impacts could arise within the lifespan of this second Local Transport Plan.



- 4.87 The location of Stansted Airport is such that expansion will affect transport related issues in Essex and nearby areas of Hertfordshire. Essex County Council will continue to work in close partnership with Hertfordshire County Council and the District Councils of Uttlesford and East Hertfordshire to examine the transport implications of the airport expansion. The working partnership between the four local authorities provides for the joint appointment and funding of specialised support consultants. Specialised transportation planning consultants have been appointed to consider the suite of transport models that are being developed by BAA plc to support their airport expansion proposals. BAA plc will support their planning applications with forecasts from a set of transport models which include future air traffic forecasts, regional demand modelling, surface access mode share models, regional highway routing models, rail models and a detailed road traffic model of the highway network closer to the airport.
- 4.88 In the Government's Airports White Paper (December 2003) 'Future Development of Air Transport in the United Kingdom: South East Study' (SERAS), London Southend Airport is classified as a second tier airport with a possible future capacity of up to 3 million passengers per annum. London Southend Airport has been established for over 90 years as a commercial and passenger airport. It currently specialises in the maintenance of aircraft and on 7th May 2005 the airport's first scheduled flight in over a decade took place. This was instigated by development proposals submitted to Rochford District Council in 2004.

Port Growth

- 4.89 The development of a 1,400 metre deep water quay at Bathside Bay will make Harwich International Port a significant UK container port. A further world class container port is proposed at London Gateway on the site of the former Shell Haven Oil Refinery in Thurrock in Thames Gateway South Essex.
- 4.90 The proposed £300 million Bathside Bay development includes the reclamation of 65 hectares of inter-tidal mudflats, the construction of a new 1,400 metre container terminal and stacking area, a new rail terminal and the creation of a small boat harbour to mitigate the displacement of existing moorings. It is also expected to bring economic benefits to the area by enhancing the port's capacity to handle the very large vessels that have an increasing share of the deep sea container trade, therefore increasing its attractiveness as a deep sea port facility. The development will further enhance the self-containment of the Haven Gateway sub-region by creating jobs that will be filled from the local employment market.
- 4.91 The development at London Gateway will create a second large deep sea container port in Greater Essex. It will include a 2,300 metre container quay with a capacity of 3.5 million Twenty Foot Equivalent Unit (TEU) a year and two roll-on roll-off berths. Adjacent to the site a 10 million square foot business park is also proposed, generating an estimated 17,000 new jobs and considerably aiding the regeneration of the area.

- 4.92 The negative impacts on the environment that might occur also apply to these developments with increased traffic being created by new employee and freight movements resulting in increased noise and vehicle emissions. Clearly this development must be accompanied by substantial investment in local transport infrastructure.

Commuting both within and outside the County

- 4.93 Essex is a large County located directly adjacent to London and has traditionally seen long commuting distances due to the movements of workers attracted into the capital by the higher wages on offer. The volume of these movements has increased over the last ten years and will rise further in the future if the growing population from the significant level of planned new housing is not accommodated within sustainable communities, offering local services and local jobs to reduce the need to travel.
- 4.94 Research has shown that commuting to and from work appears to be based more on the time needed to complete the journey rather than the length of the journey itself. The average time taken to travel to work has remained static, at about an hour, but the distance travelled has risen with the increasing accessibility of both private vehicles and public transport modes. The desire to commute further in a given time and the benefits of the ability to do so, through increased accessibility must be carefully balanced against the negative impacts of such activity, such as increased emissions, increased congestion and reduced Quality of Life.
- 4.95 The reasons for such travel must however be taken into account. People are now more reluctant to relocate with each new job opportunity due to less job security, the cost of moving and the current high prices in the housing market. The geography of the job market within and outside Essex means that the people who desire to live in rural areas such as the North of Essex must travel further to work than they would were they to live in urban areas. Nearly half (49%) of all the working population in North Essex currently travel out of the area to get to their workplace, accepting longer journeys as a trade off against living in the place they want to.
- 4.96 The likely continued rise in this trend will create additional pressures on the road and rail networks in Essex, some of which are already congested. Over 112,000 people commute daily into London from Essex, placing great strain on radial routes such as the A12, A127, A13 and M11, as well as the orbital M25, the c2c rail lines and the 'One' rail network. At present the c2c and 'One' West Anglia route are both operating at over capacity and the 'One' Great Eastern route will shortly reach 80% capacity. This leaves very little room for growth on these public transport routes before they reach the point that performance starts to become unstable and deteriorate. There is a risk that some commuters may decide to switch to unsustainable car travel on already congested roads if the quality of service on the railway lines declines as passenger numbers rise to critical levels. Extra capacity is urgently required on all lines into London to



eliminate this risk, improve performance and also allow for future growth in freight distribution on rail, but this is something that is outside the scope of the LTP. Without a good quality service, attracting commuters from unsustainable travel habits will prove difficult, even with the demand management proposed within the TIF bid submitted by Essex County Council for the South Essex Rapid Transit system.

Opportunities to Accommodate Growth Sustainably

- 4.97 Development pressures can also offer a major opportunity for change. The sheer scale of new building expected over the next five years will enable Essex County Council to ensure that developer contributions provide sufficient capital and revenue funding for transport in advance of occupation. There are also opportunities to work with the East of England Development Agency and other agencies to optimise transport provision in the regeneration areas of Thames Gateway and the M11/Stansted corridor.
- 4.98 The increase in employment provision planned for the County provides opportunities for areas which are currently in decline and in need of regeneration. Development of the ports and airports can bring job creation and additional trade from national and international suppliers and customers, ultimately raising the profile of Essex as a leading business area. These developments will enable Essex County Council to obtain substantial additional funding for transport and other infrastructure improvements from developers.
- 4.99 The planned new housing growth presents many opportunities for improvement. For example, it will give the County Council an opportunity to implement and deliver sustainable development, bring about regeneration benefits and ensure that there is appropriate accessibility to key services via sustainable modes of transport. A design guide for sustainable development has been developed jointly between the County Council and the Commission for Architecture and the Built Environment (CABE), in order to create better quality urban environments that are both safer and more attractive to residents without access to a car. It is, however, clearly evident that additional Government investment in transport in Essex will also be required to deliver these improvements (see Chapter 2).
- 4.100 Through the Regional Spatial Strategy, contained within the DEEP, and working with business, community and transport interests, the County Council can shape the pattern of development and influence the location, scale, density, design and mix of land uses. This can help achieve the objectives of this LTP by reducing the need to travel and reducing the length of journeys, making it safer and easier for people to access jobs, shopping, leisure facilities and services sustainably by public transport, walking and cycling.



- 4.101 There is an opportunity to promote more sustainable forms of travel such as walking, cycling, public transport use and car sharing, as contained in the DfT's Smarter Choices tool kit¹⁰. Additional investment as a result of S106 will assist in the construction of new infrastructure that supports these aims, to the benefit of the entire Region.
- 4.102 Other opportunities that can be brought about through increased housing allocations are mixed use developments, redevelopment of inner urban areas and the ability to create higher density urban intensification developments that are close to public transport interchanges, bringing about all the benefits that decreased car use can provide.
- 4.103 Such is the scale of the expected development that serious consideration must be given to its impact on the transport network. Desirable though growth is, the question remains as to whether Essex can absorb the pressures it brings without a corresponding increase in the level of transport investment. Making good the infrastructure deficit of the last twenty years will be a major challenge.

¹⁰ Making Smarter Choices Work, DfT, 2004.

Our Transport Strategy

Chapter 5 Essex Transport Strategy