Sevenoaks Transport Study
Evidence base report

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Introduction

About Sevenoaks

Sevenoaks is a predominately rural District. It has 4 main towns - Sevenoaks, Swanley, Edenbridge and Westerham - a number of large villages and numerous smaller villages and hamlets. The majority of the District (93%) lies within the Green Belt while a significant amount of the countryside is designated as AONB and Special Landscape Areas. Many of the settlements have Conservation Areas and there are approximately 1400 Listed Buildings.

The transport in Sevenoaks is fairly restricted due to the rural nature of the district especially in the southern and northern parts. This has been demonstrated by the fact that only 8% of people interviewed for our Core Strategy Preferred Options Report said that public transport was good. However, the urban centres of Sevenoaks and Swanley have good train links to London and reasonably good bus services.

Overall purpose of the project

The District Council is in the early stages of preparing a Transport Strategy. The Transport Study will form the evidence base of the emerging Strategy and will help to identify key issues to be taken forward into this Strategy.

The District Council is also in the process of replacing the District Wide Local Plan with a Local Development Framework (LDF). The transport study will inform the evidence base for both emerging and future DPD's.

Through consultations carried out as part of the LDF process, the District Council has collected a lot of anecdotal evidence about issues in the District, but little empirical data. Therefore, the study will be expected to perform two functions:

- The study will provide the council with a data base on which the Strategy and planning policies can be based; and
- Identify key action points that the council can take forward into the Transport Strategy.

In addition, the findings of the Study and action points may be used in the preparation of Sevenoaks District Council Staff Travel Plan.

Policy Background

The key action points that will come out of this study will be based on government guidance ranging from the national to local level, summarised as follows:

Government Guidance

PPG 13

The key aims of PPG13 (Transport) are to:

1. Promote sustainable transport choices for both people and for moving freight
2. Promote accessibility to jobs, shopping, leisure facilities and services by public transport, walking and cycling
3. Reduce the need to travel, especially by car

PPG 13 - http://www.communities.gov.uk/index.asp?id=1144015

South East Plan and Regional Transport Strategy

The strategy will conform to the key transport policy documents within the regions, the South East Plan and the Regional Transport Strategy as they relate to Sevenoaks District.

The South East Plan outlines that we need to achieve a more sustainable pattern of transport and that future investment in the transport system must seek to improve levels of accessibility overall by achieving a rebalance of the transport system.

The Regional Transport Strategy vision is 'A High quality transport system to act as a catalyst for continued economic growth and provide for an improved quality of life for all in a sustainable and socially inclusive manner: a regional transport system which, by 2021, matches the standards of the best in North West Europe.'

South East Plan -
http://www.southeast-ra.gov.uk/southeastplan/plan/view_plan.html#core_doc

Regional Transport Strategy –
http://www.southeast-ra.gov.uk/publications/strategies/transport.html

Kent County Council Local Transport Plan (2006-2011)

The strategy will also adhere to the long term vision for Kent:

'To provide good, safe accessibility to jobs and services for all sections of the community in Kent, and to improve the environment and health of the community by reducing congestion and pollution, widening the choice of transport available and by developing public transport, walking and cycling.'

Kent County Council's Local Transport Plan –
http://www.kent.gov.uk/static/local-transport-plan/index.html

Sevenoaks District Community Plan

The Sevenoaks Community Plan identifies a target to improve the range of transport options in the District:

'Residents and our partner organisations alike have expressed concerns about the lack of transport options in the District. The need for more reliable and more frequent transport services is a real issue, particularly given the rural nature of the District where poor transport makes it difficult for vulnerable groups such as the young and elderly and people without cars to access services.'

It is essential that the key action points reflect the aims of the Sevenoaks District Community Plan.

Sevenoaks Community Plan –
http://www.sevenoaks.gov.uk/community_living/sevenoaks_district_community_plan/default.asp

Sevenoaks District Local Plan (2000)

The Local Plan explains that the main aim is to encourage people to use public transport and other sustainable forms of transport. The studies main findings must support the main aim of the Plan:

'To promote an integrated transport network which encourages the use of public transport and other environmentally suitable modes of transport and reduces the need to travel by private car.'

Sevenoaks District Local Plan –
http://www.sevenoaks.gov.uk/environment/planning/plans_policies/current_local_plans_policies/default.asp

The District Council is working to replace the Local Plan with an LDF. The Local Development Scheme (LDS) sets out a timetable for the replacement of the Local Plan, along with documents to be prepared. This is available at http://www.sevenoaks.gov.uk/lds.

LDF Core Strategy

The Core Strategy Preferred Options Report, Strategic Objective 7 is:

'To ensure a safe and sustainable transport network which meets the needs of the whole community and which promotes sustainable transport choices and healthy options for travel.'

Core Strategy Preferred Options Report –
http://www.sevenoaks.gov.uk/environment/planning/plans_policies/current_ldf_consultations/2367.asp

In general the key action points of the study must focus on sustainable forms of transport, in line with both PPG 13, the South East Plan, Regional Transport Strategy, Kent County Council's Local Transport Plan, Sevenoaks District Council's Community Plan, Local Plan and LDF Core Strategy.

The Brief

The objectives of the study are to:

- Provide a comprehensive and robust evidence base for policies in the forthcoming Transport Strategy;
- Provide a comprehensive and robust evidence base for planning policies in the revised draft of the new Sevenoaks Local Development Framework (LDF) and any supporting Supplementary Planning Documents (which the Council may wish to publish subsequently);
- Inform corporate strategies/initiatives including an approach for section 106 agreements.

The action points devised will form a basis for the Transport Strategy and will address key transport factors. These points should be prioritized and a number of options for tackling these points will be suggested such as:

- Investigating viable alternatives to the car, such as encouraging more journeys by bus, train, cycling and walking, that will improve travel choice;
- Identify barriers to the take up of alternative forms of transport and recommend actions to address this issue;
- Reducing traffic congestion by improving traffic management to reduce congested areas, improving air quality and assessing the viability of other options such as car sharing and identifying possible solutions such as new roads.
- Identifying schemes which target casualty reduction and reducing inappropriate speeds to improve road safety. This will look at improving safety on rural lanes and also making pedestrians and cyclist's feel more safe when using the road.
- Reducing travel demand by reducing and controlling the number of car journeys made into town centres and locating new development close to good transport links and local facilities to reduce car journeys. It will also identify key parking issues and identify possible solutions to alleviate problems such as commuter parking in the district.
- Improving travel awareness by encouraging travel plans and partnership working with stakeholders and transport providers. This will include looking at innovative approaches to public transport in rural areas.

Methodology

The Transport Study will also involve key stakeholders in the District such as the Highways Agency, Kent Highway Services, Kent County Council Public Rights of Way, South Eastern Trains, Southern and Arriva.

The District Council is currently in the process of setting up a Transport Forum, and the contact details of its members will be forwarded to the appointed consultant. It is a requirement that this forum be consulted during preparation of the study.

The Final Output

The project should take the form of a detailed report of the findings and should address the requirements of the brief and meet any other requirements set out above.

The report and any database or spreadsheet should be compatible with Microsoft applications.

10 copies of the report and Executive Summary should be provided along with a disc of the study in Adobe Acrobat or Microsoft Word format that can be published on the internet.

Project Management

A number of meetings will be required between the consultant and the Council including:

1. An inception briefing to discuss and clarify the method to be used in the study.

2. A number of progress meetings at which the general progress of the study and any emerging issues concerning the study shall be raised.

3. A meeting to present and discuss the draft findings (which shall be presented as a draft report by the consultants a minimum of 4 weeks before the end of the study period).

4. The consultants will also be required to make a presentation, at a time and venue to be agreed, at which the final findings of the study shall be presented to a wider audience within the Council and partner organizations.

Consultants will be expected to set out a timetable for the preparation of the study and key action points in their tender documents.

Timescales

The intended timescales and key dates are as follows:

- Deadline of receipt of formal tenders – 20th December.
- Interviews of short listed consultants – 11th and 12th January.
- Appointment by – 19th January.

Appendix B
Meeting Notes

appendix **B**

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Minutes of Meeting

Job Title	Sevenoaks Transport Study
Job Number	H070130
Venue	Sevenoaks DC Offices
Date	30 January 2007
Present	***Chair***: Cllr Gary Williamson (GW), Councillor for Halstead, Knockholt & Badgers Mount wards ***Sevenoaks DC***: Maggie Williams (MW); Richard Wilson (RW); Matthew Hogben (MH) Transport Planning ***Kent CC***: David Joyner (DJ), Sustainable Transport; Steven Noad (SN), PT; Anne Marie Hannam (AMH) and Bryan Fitzgerald (BF), West Kent Highway Services; Nicky Biddall (NB) and Colin Finch (CF), Countryside Access Improvement/ Public Rights of Way ***Tandridge DC***: John Phillips (JP), Planning Policy ***Action with Communities in Rural Kent***: Trevor Skelton (TS) ***Arriva Southern Countries***: Malcolm Spalding (MS) and Peter Elliot (PE) ***South Eastern Trains***: Mike Gibson (MG), Public Affairs ***Rail Travellers Associations***: Peter Benford (PB) and Dr Roger Johnston (RG), Sevenoaks District; Geoff Meekums (GM), Edenbridge ***British Horse Society***: Alan Tuckwell (AT) ***JMP Consulting***: Lynn Basford (LEB), Project Director; Derek Palmer (DJP), Project Manager; Thomas Derstroff (TD), Transport Planning
Apologies	Richard Parry, Kent CC; Cllr Roger Walshe; Sevenoaks Volunteer Bureaux
Distribution	JMP internal

Item	Action
1 Introduction GW welcomed the stakeholder group and outlined the study background	
2 Study purpose JMP (LEB & DJP) introduced the study methodology, purpose and the actions points developed by Sevenoaks DC. RJ requested *Air Quality* and *Quality of Life* related issues to be added as action points. It was agreed that the presented list was a draft list which would be extended through the input of the stakeholder meeting and the course of the data research for the transport strategy. Further, more specific points raised were the lack of a vision statement, the importance of parking restrictions and disability access and transport related issues. With regard to a vision statement, it is anticipated that this would be developed as part of the Transport Strategy. In addition the need for motivation to reduce car use and changing transport pricing were mentioned. DJ highlighted the importance of the following Kent CC documents for the study: *Kent Vision*, *Kent Local Transport Plan* and *Towards 2010*. It was suggested that other LAs and London Boroughs be involved.	

3 Stakeholder statements

South Eastern Railway (MG)

- Capacity growth is key issue in the area (+ 20% over past years and rising); a rail travel demand paper is available and will be supplied by RJ **RJ**
- Continuing London economic growth is likely to affect passenger demand in the future and major developments e.g. Dunton green, would add to demand
- Requirement for 12-car service and higher frequency to relief congestion and cater for demand; also to take further pressure off motorway network (M20, M25); Thameslink 2000 will only have minor relief impact on congestion in Sevenoaks area; as will CTRL
- Further bottlenecks are London termini and the 8 level crossings between Maidstone and London which require speed restrictions. Infrastructure improvements will enable a new Dec 2009 timetable to shorten travel time and attract more passengers from Sevenoaks line.
- Higher passenger demand is also necessary to make line profitable as subsidies decrease towards end of contract (currents subsidies are 140-150m pa)
- Sevenoaks is perceived an attractive P&R station, through high off-street parking pressure and no dedicated P&R facility available.
- Partnership working with Kent CC and Districts is highlighted as requirement for future development. Network Rail was requested as a partner in the stakeholder group to discuss future infrastructure development.
- Southern Trains was highlighted as another rail operator in the Sevenoaks district to be consulted.

Arriva (MS)

- Arriva operates 5 routes in the area, 3 of which are economically viable.
- Frequency and punctuality emerged as key issues from a passenger survey: Frequencies of 12min would be preferable; Punctuality in urban areas can only be assured through bus priority measures (Riverhead to Sevenoaks would benefit from bus lane)
- Section 106 contributions are highlighted as measure to kick-start a PT service, but need to be in place with first occupancy, not upon half or full occupancy as often agreed to.
- Financial implications of free 60+ fares and free child fare trials impacting on peak period occupancy are highlighted
- The introduction of low-floor bus design throughout the fleet are further improvements scheduled (Route 215 currently not low-floor)
- Partnership working and synchronisation of bus and rail operator timetables is also highlighted as a potential for improvement
- PlusBus should be introduced as a fare add-on to the rail ticket to allow for unlimited bus travel. Tonbridge and Tunbridge Wells already offer this ticket; Sevenoaks will require an improved route network to justify this ticket.
- 90% reliability is achieved but punctuality is lower, especially later in day

Kent CC

Highways (AMH & BF)

- AMH is responsible for the Thamesside area and has input into their transport strategy , BF is responsible for the Sevenoaks area; there is a good data base on transport issues: “Contact Centre”; surveys are undertaken by Jacobs Consultancy

Public Rights of Way (CF & NB)

- Sevenoaks is considered very accessible and attractive with tourists and walking groups for a wide network of public rights of way, in particular in the town centre.

PT (SN)

- A sparse population outside the main centres requires high subsidies on PT;

B

Dial-A-Ride is considered a viable alternative, as trialled in Swanley; should be considered for Sevenoaks
- Real-time travel information would be useful, but requires a high capital investment; 14 sets of infrastructure were already financed through LTP funding, but the radio signals necessary could not be introduced due to lack of funding
- On a simpler level, useful signs, or real-time bus information at the station could improve the situation

Sustainable Travel (DJ)
- Free age 16-17 trial in Canterbury and Tunbridge Wells have proved successful in attracting patronage
- Quality Bus Partnerships are useful instrument to encourage investment from all parties, but have not been introduced in Sevenoaks yet; "Punctuality Improvement Partnerships" trials should be tried; High number of travel plan in place already (targets of 40% school TPs have been met in Kent – 50% of secondary & 25% primary schools in SDC, Sevenoaks DC TP in development); 50 schools signed up to Walking Buses; Car Sharing (200 members, 15 employers) and Car Clubs (pilots) have been initiated; cycling is of high priority in Kent due to the Tour de France arrival in summer 2007. ; Park&Ride is considered for a number of rail stations

Sevenoaks DC
Highways (RW)
- There are 900 registered users of the DRT service (using 9 minibuses); taxis are also highlight as a key contributor to the PT service.

Air Quality (RW)
- 10 AQMA introduced already, with 4 to be added this summer; 4 falls within a motorway section, the remaining 6 are problematic with regard to congestion on KCC roads

Following the stakeholder statements, the group were split into two to discuss individual issues related to transport in the Sevenoaks District:

4 Group Discussion A (Derek Palmer)

David Joyner (DJ); Anne Marie Hannam (AMH); Colin Finch (CF); Trevor Skelton (TS); Peter Elliot (PE); Mike Gibson (MG); Alan Tuckwell (AT); Peter Benford (PB)

Issues identified
Rail
- Overcrowding on Sevenoaks-London rail services/ Rail capacity does not meet demand
- Lack of appropriate road link Sevenoaks-London
- High costs of PT
- Poor links to Gatwick

Bus
- Lack of bus services due to rural nature/ Poor bus services to rural areas/ Poor bus links to station
- Lack of a car is a problem especially for the elderly
- Poor east-west links by PT

Cycling
- Lack of cycle tracks along roads/ No cycling routes in Sevenoaks

Road infrastructure/ car use
- Poor access off motorway network to Sevenoaks
- Increase car use = congestion and reduced air quality
- Gridlock & parking for residents & commuters
- Car use for J2W is low due to rail use to London

B

- Too much commuter parking in Sevenoaks; sticks vs carrots; currently only car-restrictive measures in place, but improvements to PT are necessary/ high dependence of private car – no incentive to discourage use of private car/ lack of 'punitive' measures' to discourage car use; 'stick' needed as well as 'carrot'

Land use

- Lack of high density population centres to enable viable bus services
- Access to services for rural residents, particularly young people
- Rural accessibility to main town

Other

- Shortage of labour; no willingness for shift work or work facing the public; marginal costs of evening and weekend bus services is bound to rise over next 20 years
- Understanding → Awareness → Action
- Pollution & global warming pressures
- New developments in line with sustainable transport principles & funding
- Cost of PT exceeds that of car use in real terms

Opportunities identified

- Home working to decrease demand for travel
- Free PT/ bus travel
- PT funding
- Need to link P&R to station
- AONB – constraints on development opportunities
- High density development to enable PT
- New ticketing procedures
- Housing pressure and 2 major developments in Dunton Green & Fort Halstead are opportunities
- Higher development and density may reduce subsidies
- Alternative PT provision
- New RTI unlikely to increase PT use

Priorities defined

- Non-car barriers; reducing travel demand through development location; travel awareness (all 6 votes)
- Traffic congestion (2)
- Rural access (1)
- Alternatives to car use; road safety (0)

Synergies identified: travel awareness & non-car barriers; alternatives to car use & traffic congestion; alternatives to car-use & road safety

Conflicts identified: alternatives to car use & rural access

Actions suggested

- Wider matters should be considered
- Political will needed
- Rural economy is important
- Demand management
- Parking restrictions to raise money, not transport policy (& road safety), e.g. RPG2
- Recreational demands
- Access for all
- Ageing population will result in increased PT demand
- Carrots & sticks must synergise
- Cycling data from SUSTRANS should be used

B

5 Group Discussion B (Lynn Basford)

Steven Noad (SN); Bryan Fitzgerald (BF); Nicky Biddall (NB); John Phillips (JP); Malcolm Spalding (MS); Dr Roger Johnston (RG); Geoff Meekums (GM)

Issues identified

PT general

- Sustainable rural transport
- Need to meet needs of users for non-car based travel
- Intermodal interchange at Sevenoaks

Rail

- Improve service on Redhill-Tonbridge railway line (benefits for Kent & Surrey residents); also to improve services to and from Gatwick airport
- Edenbridge service is now overcrowded due to rapidly increased demand and a lack of rolling stock (TOC Southern Railways "plays the near to the end of Franchise card")/ Much improved service but Southern Railways does not respond to local needs/ Good(ish) train service to Edenbridge
- Poor rail services to/ from Maidstone (County town & Crown Court)

Bus

- Riverhead congestion leading to un-reliable bus services
- General low levels of PT/ high population needed for profitable operation of local buses
- Poor Edenbridge area local services/ Poor buses in Edenbridge
- Express bus services Guildford Maidstone (Sevenoaks, Oxted, Redhill, Dorking) to relieve M25 congestion

Cycling

- Lack of cycle tracks

Walking/ accessibility

- Pedestrian movements without conflict with vehicles (urban areas: Sevenoaks, Swanley, Edenbridge)
- Mobility impaired access (urban areas: Sevenoaks, Swanley, Edenbridge)

Road infrastructure/ car use

- M25/ A210 road link – 20 year horizon
- Lack of M25 junction
- Lack of rail car park spaces
- On-street parking Sevenoaks town centre & Knockholt station
- Road congestion & on-street parking around stations
- Riverhead corridor traffic congestion
- M25 junction congestion

Land use

- Dunton Green Cold Store (500 units) have adverse impact on local transport & congestion
- Better interconnectivity between PT & leisure facilities

Other

- Lack of integrated information/ promotion of PT services to access leisure facilities/ improvement & promotion of information on walks/ rides
- Perception of traffic speeds/ road safety/ injury crashes (in Sevenoaks, Swanley and district-wide inc village)
- Riverhead corridor air quality

Opportunities/ Pressures

Development/ Economics

- Dunton Cold Store (500 residential/ mixed dwellings)
- The Fort (1,500 dwellings)
- Swanley town centre (transport links, parking)
- Edenbridge secondary school development
- 'Piecemeal' development Edenbridge (old industrial)
- Green Belt? – South East Plan housing allocation

B

- Sevenoaks not necessarily defined as a growth area itself, but sandwiched between growth areas

Technology

- Working from home (Broadband coverage)
- Need a change in work patterns

Social

- 60+ drivers – need to provide transport
- Health care access (hospitals, health care centres of excellence)
- East-west aspects
- Property market is limiting factor – rail is primary enabler on TMS
- Longetivity of life
- There are service variations between Sevenoaks and other villages in to the district

Priorities defined

- Alternatives to car use (6 votes)
- Reducing travel demand through development location; travel awareness (both 4)
- Environmental aspects (2)
- Non-car barrier; traffic congestion, road safety, rural accessibility, disability issues (all 1)
- Quality of life (0)

6 Summaries

The outcomes from the individual discussions were summarised as follows:

Group A (Derek Palmer)

- A high number of comments shared with group B.
- Social aspects and health aspects
- Barrier to non-car modes, travel demand management through development location and travel awareness were the most prioritised actions

Group B (Lynn Basford)

- A high number of shared comments with group A. Non-location specific comments were given
- Cycling is a neglected mode
- London economy and the dependence on it is a key driver that should be recognised
- Public funding, demand management and parking are highlighted as an important issue
- Home working is an opportunity to reduce need to travel
- The use of a 'carrot-and-stick' policy is recommended
- Actions mostly selected are alternatives to the car, development locations and travel awareness

All stakeholder group members were provided with a data proforma to inform the study team of relevant data held. Forms should be returned to MH.

7 Next Meeting and closure of meeting

The second Stakeholder Group meeting was agreed for 26 March 2007, 10:30 – 13:00.

There were no further comments and the meeting closed.

B

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Minutes of Meeting

Job Title	Sevenoaks Transport Study
Job Number	H070130
Venue	Sevenoaks DC Offices
Date	26 March 2007
Present	***Chair***: Cllr Gary Williamson (GW) ***Sevenoaks DC***: Matthew Hogben (MH) Transport Planning ***Kent CC***: Anne Marie Hannam (AMH) Bryan Fitzgerald (BF), West Kent Highway Services; Richard Parry (RP); Colin Finch (CF), Countryside Access Improvement/ Public Rights of Way ***Tandridge DC***: John Phillips (JP), Planning Policy ***Action with Communities in Rural Kent***: Trevor Skelton (TS) ***South Eastern Trains***: Mike Gibson (MG), Public Affairs ***Rail Travellers Associations***: Dr Roger Johnston (RG), Sevenoaks District; Geoff Meekums (GM), Edenbridge ***British Horse Society***: Alan Tuckwell (AT) ***JMP Consulting***: Derek Palmer (DJP), Project Manager; Thomas Derstroff (TD), Transport Planning
Apologies	David Joyner (DJ), Nicky Biddall (NB), Richard Wilson (RW), Maggie Williams (MW), Malcolm Spalding (MS)
Distribution	As above

Item	Action
8 Introductions • GW welcomes the attendees and following the introductions, the meeting is handed to DJP to report on the initial findings of the Sevenoaks Transport Study	
9 Presentation by JMP • DJP presented the study findings which led into a PESTLE analysis exercise with the stakeholders • The initial comparison of the study team's PESTLE with that by the stakeholders revealed very similar rankings of the eight action points discussed, in particular the most important issues: Action Point 6; travel awareness, and Action Point 3: reducing congestion through traffic management. A detailed analysis will be carried out and feed into the production of the final report. • The differences in a higher ranking given to the environment by the delegates and a lower ranking for safety was explained by local knowledge and the subjectiveness of safety, which cannot be demonstrated by the availability of statistics	JMP

B

10 Discussion

PT funding

- The importance of involvement of SUSTRANS due to extensive available funds and need for improvement was highlighted; measures for other modes are expected to be funded largely from other public sources — JMP
- The opportunity of S106 funding was discussed and it was agreed that a plan needs to be in place about which streams S106 contributions should be channelled into — SDC
- There is a need to discuss with existing, potentially large employers, the possibilities of co-funding sustainable transport schemes and point out the financial benefits to employers — SDC
- Large estates and accessibility to and from the town centres is a key theme to be covered by an increasing number of Area Travel Plans
- Commuting to Sevenoaks needs to be assessed separately in three groups:
    - P&R commuters using Sevenoaks as a train station to London during peak hours with good but crowded train services, but no bus connections
    - Commuters/ pupils (school travel contracts are very attractive to bus operators) with destination within Sevenoaks during peak hours
    - Shopping during off-peak hours
- Quality Bus Partnerships (Kent CC/ bus operators) were identified as of great potential — SDC
- Cycle parking at Sevenoaks rail station is growing and needs coordination with rail operators (JP); parking has increased with the abolishment of cycle transport on peak hour trains (MG) — SDC

Barriers to Smarter Choices

- Political resistance to Smarter Choices which are often considered anti-car (AMH)
- Funding was identified a key issue as Council Tax increases are politically difficult
- An information gap on Public Transport was identified in order to increase demand - more partnership working was needed, technical requirements to be solved, self-promotion of bus operators needs improvement (RJ) — SDC
- Mode integration was raised as an opportunity for improvement; morning and evening bus services need improvement, linking into the rail timetable; more flexible work patterns require more flexible timetables (RJ)
- DRT was raised as an opportunity

Stakeholder consultation

- Stakeholders suggested:
    - PT operators & users
    - Adjoining Councils
    - Parish Councils
    - Kent CC Highway, PROW, transport
    - Schools
    - SDC and Kent CC planners
- Research into best practise on LDF development from other Councils was suggested — SDC
- Current DRT and voluntary services run by Kent CC should be better marketed and expanded (RP); however the difficulty of making a initially publicly subsidised service commercially viable over time was pointed out (RJ)

B

Strategy vision

- 80% housing on windfall sites require estimate of housing development, especially for known larger sites
- West Kent Cold Store development needs to be addressed as part of the Strategy development process to ensure public transport is built in - planning timetabling is a long term process
- Existing development need addressing (residential, education, health access)
- Run times of rail franchises need to be taken into consideration

11 AOB/ next meeting

- Further dates to be notified were
    - Next Transport Forum on 4 July
    - SDC Annual Transport Conference on 23 October
- There was no other business and the meeting closed.

Summary of stakeholders' views

B.1 The importance of social and health aspects of travel behaviour was highlighted. Cycling was perceived to be a neglected mode in the Sevenoaks District area. The strong London economy and the dependence of the district upon was thought to be a key driver that should be recognised in the study. Public funding, demand management and parking were also highlighted as important issues. Home working was considered to be an opportunity to reduce the need to travel.

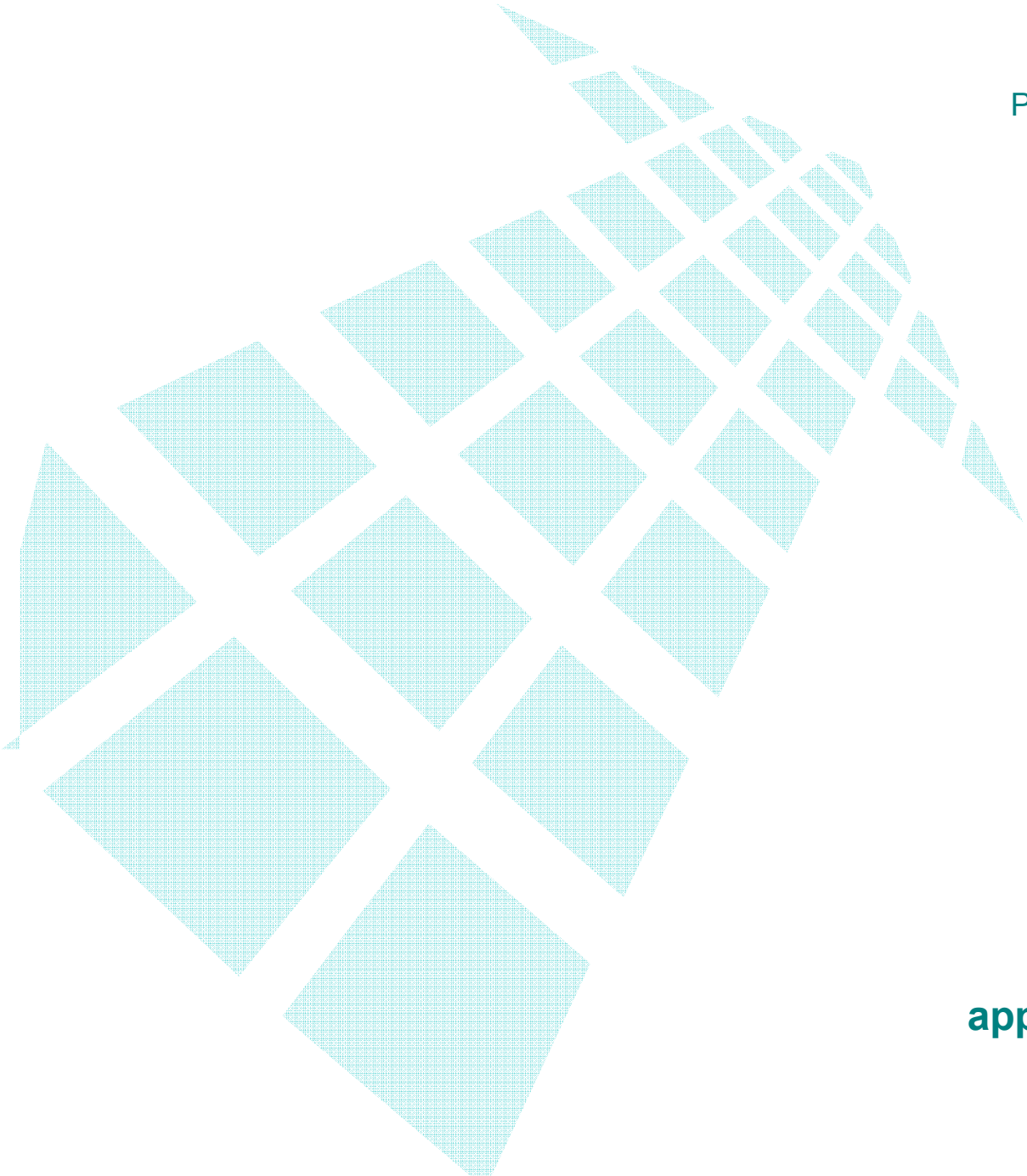
B.2 Of the SDC suggested actions those considered to be most popular were:

- Investigating viable alternatives to the car, such as encouraging more journeys by bus, train, cycling and walking, that will improve travel choice;
- Identifying barriers to the take up of alternative forms of transport and recommend actions to address this issue;
- Reducing travel demand by reducing and controlling the number of car journeys made into town centres and locating new development close to good transport links and local facilities to reduce car journeys; and
- Improving travel awareness by encouraging travel plans and partnership working with internal and external stakeholders and transport providers.

B.3 The use of a *'carrot-and-stick'* policy was recommended by delegates. Carrot-and-stick is an idiom describing the combination of rewarding desired behaviour and punishing unwanted behaviour. In the sustainable transport context, the sticks are selected from parking restrictions, higher fuel prices, vehicle taxation, car parking charges, road pricing, congestion charging and (more recently) area wide car free zones etc. The carrots are selected from much improved public transport services (in price, frequency, directness, cleanliness, safety, security and reliability), a range of incentives to encourage cycling (bicycles loans and grants, high quality segregated routes, showers and lockers and convenient parking) and car share incentives (computer matching, the 'best' car parking places, financial rewards) etc. The forthcoming Sevenoaks Transport Strategy needs to combine an appropriate mix of such interventions.

B.4 The importance of the following Kent CC documents for the study was highlighted: *Kent Vision, Kent Local Transport Plan and Towards 2010*. It was also suggested that other neighbouring local authorities and London Boroughs be involved.

Appendix C
PESTLE analysis



appendix C

PESTLE analysis

C.1 The strategy environment – the context within which the Sevenoaks Transport Strategy is formulated, assessed and realised – includes all external factors that may have an impact on the strategy development. A PESTLE analysis is designed to help establish the possible influences and impacts comprehensively and systematically upon the strategy during the development phase. This initial PESTLE analysis should help identify potential risks faced by the forthcoming STS.

C.2 This PESTLE impact aims to identify any potential issues and possible needs for further evidence/ data across six main areas of interests:

- **Political** (e.g. to assess the political and public acceptability);
- **Economic/ financial** (e.g. to assess the impact on the local economy and including the identification of possible funding streams and S106 agreements);
- **Social** (e.g. to ascertain the impact on social exclusion);
- **Technological** (e.g. to consider the impact of any expected technical developments);
- **Legal/ regulatory** (e.g. to ensure that interventions are legal); and
- **Environmental/ ecological** (e.g. to assess the likely environmental impact).

(In addition, some PESTLE analyses consider three other issues: management, quality, safety – it is not proposed that this appraisal covers these issues but this may be required when the STS is near finalisation.)

C.3 This appraisal framework takes into consideration the scale of the impact and distinguishes between evidence of short term impacts (up to 5 years i.e. the completion of implementation of the second Kent Local Transport Plan) and impacts that last into the long term (up to 2026 – the period covered by the Local Development Framework). The framework is based on a scoring scale of between -5 and +5 to reflect evidence of the scale of impacts and longevity of that impact. The level of scores reported are based on technical experience and professional judgement but are clearly open to interrogation and so should only be used as a guide. A blank cell means that the impact is expected to be neutral. Separate analyses were undertaken by the study team and the stakeholders which led to different score for some elements. Scores from both are reported here in order to highlight differences in opinion over the scale of the impacts and their timescale. The comments from the study team and the stakeholders have been merged.

C.4 Examples of interventions that would support the action points are also identified. These are meant to be illustrative and are not necessarily comprehensive. Nevertheless they are all actions that SDC itself, or in conjunction with its partners, could implement.

Action Point 1: Investigating viable alternatives to the car, such as encouraging more journeys by bus, train, cycling and walking, that will improve travel choice

C.5 Examples of **possible alternatives to the car:**

- wider and continuous footways;
- remove guard railing;
- better maintained footways;
- pedestrian crossings;
- CCTV in pedestrian areas;
- dropped kerbs and tactile paving;
- improved rights of way;
- improve routes on desire lines to generators;
- segregated cycle lanes;
- advanced stop lines for cyclists at junctions;
- secure cycle parking;
- office showers for cyclists;
- more regular and reliable bus services;
- providing bus lanes/ bus priority;
- real-time bus information at bus stops;
- secure bus stops and buses (e.g. CCTV);
- integrated bus (or bus & rail) ticketing;
- concessionary fares; subsidised buses;
- more regular and reliable rail services;
- better rail interchanges (stations), park & ride/ kiss & ride facilities; etc.

C.6 Key **stakeholders include**:

- Public transport operators;
- Transport users;
- Highways Agency; and
- Neighbouring Local Authorities.

C.7 Sevenoaks District Council (SDC) already has good working relations with these but will need to maintain them over time.

T C1 PESTLE – investigating alternatives to the car

Impact type	Study team scores				Stakeholder team scores				Comments
	Short term impact		Long term impact		Short term impact		Long term impact		
	Negative	Positive	Negative	Positive	Negative	Positive	Negative	Positive	
Political		+1		+2		+1		+2	Likely to be politically & publicly acceptable, depending on the package of measures adopted, especially any car restraint. Providing alternatives to the car will become more politically acceptable due to the pressures of the climate change agenda.
Economic				+1	-2				Improved access by all modes would promote the economy e.g. access to jobs, education, leisure. Possible adverse impact on retailing if poorly implemented. Both capital and revenue expenditure could be very high e.g. bus lanes and concessionary fares. The costs could be prohibitive in Sevenoaks District hence the negative score.
Social		+1		+2		+2		+2	Beneficial by widening opportunities for those currently socially excluded especially non-car owning families in rural areas.
Technological				+2		+4		+3	Technology is rapidly developing to improve PT information but problems of congestion will not be addressed. There is much scope for introducing improved PT information using new technology in Sevenoaks District but this is unlikely to be achieved in under 5 years.
Legal					-2				Multiple contracts may have conflicting impacts, e.g. the renewal of rail franchises.
Environmental		+1		+5		+2		+4	Reducing car dependency and promoting use of other modes will benefit air quality, reduce noise, reduce emissions and contribute to reducing climate change risks.
SCORES		**+3**		**+12**	**-4**	**+9**		**+11**	

C.8 The stakeholders are more optimistic over the likely impact of actions that could be undertaken within the short term (five years).

Action Point 2: Identify barriers to the take up of alternative forms of transport and recommend actions to address this issue

C.9 Examples of **possible barriers**:

- narrow and discontinuous footways;
- guard railing; poorly maintained footways;
- wrongly located pedestrian crossings;
- intimidating underpasses;
- lack of CCTV in pedestrian areas;
- poorly maintained improved rights of way;
- unsafe cycle lanes;
- lack of advanced stop lines for cyclists at junctions;
- lack of secure cycle parking;
- lack of regular and reliable bus services;
- lack of bus lanes/bus priority;
- poor information at bus stops; insecure bus stops and buses;
- lack of integrated bus (or bus & rail) ticketing;
- lack of regular and reliable rail services;
- poor rail interchanges (stations); etc.

C.10 Key **stakeholders include**:

- Department for Transport
- SDC
- Town and Parish Councils.
- Network Rail;
- Train and bus operators (Southeastern Railway, ARRIVA)
- SUSTRANS
- National Cycling Campaign
- Ramblers Association
- Living Streets

C.11 The Council will need to maintain working relations with a wide range of relatively small organisations which could prove to be a strain on limited resources.

T C2 PESTLE – identifying barriers to alternative modes

Impact type	Study team scores				Stakeholder team scores				Comments
	Short term impact		Long term impact		Short term impact		Long term impact		
	Negative	Positive	Negative	Positive	Negative	Positive	Negative	Positive	
Political		+1		+3	-3			+4	Barriers to alternative forms of transport are common and removal is generally supported. However if the removal of barriers conflicts with car use, e.g. via the introduction of bus lanes, then political difficulties could arise.
Economic		+1		+1		+2		+3	Improved access by all modes would promote the economy e.g. access to jobs, education, leisure.
Social		+1		+5		+2		+3	Improved access by all modes would promote social integration e.g. access to jobs, education, leisure, health.
Technological					-2			+1	There are no barriers to technological developments being applied in Sevenoaks District. Possible problems could arise with real-time passenger transport information due to the capacity constraints on the railways.
Legal									Possible risk of increased accidents e.g. if guard railing removed leading to litigation, but research has shown that removal of guard railing can improve safety I town centres and residential streets..
Environmental		+1		+5		+4		+5	Removing barriers to alternative forms of transport will benefit air quality, reduce noise, reduce emissions, and contribute to reducing climate change risks.
SCORES		**+4**		**+14**	**-5**	**+8**		**+16**	

C.12 The scores of both groups are very similar but the stakeholders are more optimistic over the possible impacts in the short term.

Action Point 3: Reducing traffic congestion by improving traffic management to reduce congested areas, improving air quality and assessing the viability of other options such as car sharing and identifying possible solutions such as new roads

C.13 Examples of **possible traffic management measures**:

- introducing infrastructure for non-car modes (e.g. safe cycle lanes, secure cycle parking, bus lanes/ bus priority);
- integrated traffic control systems (e.g. UTMC);
- VMS signs; legible static signs; widening highways;
- by-passes of villages;
- promote sustainable travel (e.g. car sharing by travel plans);
- introduction of homezones and low-emission zones, shared surfaces; etc.

C.14 Key **stakeholders include**:

- Kent County Council;
- SDC;
- Town and Parish Councils;
- National Rail; and
- Train operators.

C.15 In the main these organisations are public sector with whom the District Council already has good links for providing infrastructure, but for maximum effect the private sector operators must support with enhanced transport services.

T C3 PESTLE – reducing traffic congestion through traffic management

Impact type	Study team scores				Stakeholder team scores				Comments
	Short term impact		Long term impact		Short term impact		Long term impact		
	Negative	Positive	Negative	Positive	Negative	Positive	Negative	Positive	
Political	-1		-2			+4		+2	Could be politically & publicly unacceptable, depending on the package of measures adopted. Car parking is an issue at railway stations within Sevenoaks District.
Economic		+1		+3	-4		-2		Reducing congestion would benefit economy if it could be maintained over time. UTMC is expensive as are some infrastructure investments but not static signs. But relief roads could damage local economies.
Social		+1		+3		+4		+2	Congestion delays buses and discourages their use. Reduced congestion enables easier access for socially excluded on buses. Car sharing needs car parks for operations to be effective.
Technological		+1		+1		+4		+2	Less-polluting vehicles and new fuels (e.g. bio-fuels) in future may mean emissions are not a problem (but congestion will remain so). Traffic control and route guidance systems are becoming more sophisticated.
Legal			-1			+4		+4	No legal requirements to use less-polluting vehicles. Fewer accidents might arise leading to lower insurance claims.
Environmental		+2		+5		+1		+4	Highly beneficial in terms of improving air quality, reducing noise and emissions that generate climate change. The adverse impact of HGVs could be reduced.
SCORES		**+5**	**-1**	**+12**	**-4**	**+17**	**-2**	**+14**	

C.16 The stakeholder group are much more optimistic about what could be achieved in the short term but also recognise the potential adverse impact of by-passes on the local economy.

Action Point 4: Identifying schemes which target casualty reduction and reducing inappropriate speeds to improve road safety. This will look at improving safety on rural lanes and also making pedestrians and cyclists feel safer when using the road

C.17 Examples of **possible safety schemes**:

- traffic calming in residential areas;
- lower speed limits on rural roads;
- speed enforcement on main highways and rural roads (e.g. fixed or mobile safety cameras);
- red-light cameras; wider enforcement of road traffic law;
- road safety education for school/ college students;
- driver retraining (e.g. for banned drivers);
- introducing infrastructure for non-car modes (e.g. wider footways, cycle lanes, bus lanes); etc.

C.18 Key **stakeholders include**:

- Kent County Council (Kent Highways, Rights of Way Improvement Plan);
- Town and Parish Councils; and
- SDC.

C.19 These interventions are very much an issue for local organisations.

T C4 PESTLE – improving safety

Impact type	Study team scores				Stakeholder team scores				Comments
	Short term impact		Long term impact		Short term impact		Long term impact		
	Negative	Positive	Negative	Positive	Negative	Positive	Negative	Positive	
Political		+1		+2		+3		+3	Political and public support for road safety improvements is strong but some measures, e.g. traffic calming and safety cameras can generate opposition.
Economic		+1		+3					Accidents are a significant burden on healthcare facilities and an economic cost to business. Enforcement by police officers is expensive while automatic enforcement e.g. via cameras can generate income.
Social		+2		+4		+1		+3	Accidents are prevalent amongst those in poorer communities and on rural roads so social benefits from reducing accidents would be significant.
Technological		+3		+5					New technology, e.g. adaptive cruise control, lane-departure prevention, omni-directional collision systems, will have a positive benefit in the longer term while more safety cameras could have an immediate impact.
Legal	-5		-2			+1		+1	Legal issues exist over liability relating to accidents involving vehicles with intelligent speed adaptation systems that could delay their implementation. Highway adjustments might be subject to legal challenge. No legal barriers exist to current methods e.g. speed cameras, but for other emerging technologies, e.g. cruise control, they do.
Environmental				+1		+1		+1	Benefits exist e.g. air quality and noise improvements, but are minor. Some schemes can detract from the appearance of historic villages.
SCORES	**-5**	**+7**	**-2**	**+15**		**+6**		**+8**	

C.20 The study team believes that road safety interventions could have a significant impact over the longer tem, i.e. the 20 year period of the LDF.

Action point 5: Reducing travel demand by reducing and controlling the number of car journeys made into town centres and locating new development close to good transport links and local facilities to reduce car journeys. It will also identify key parking issues and identify possible solutions to alleviate problems such as commuter parking in the district.

C.21 Examples of **travel demand reducing measures**:

- locating new developments at locations where access by non-car modes is easy (e.g. rail stations and bus stops);
- higher density housing; less generous parking standards;
- workplace parking charges; higher on-street parking charges;
- providing a wider range of local services (e.g. banks, hairdressers, food shops);
- limit car parking availability in towns by rationing space or pricing;
- introducing demand management measures (e.g. road-user or congestion charging);
- bus gates to enable bus (but not car) access;
- ring-roads/ bypasses; HOV lanes;
- bus & lorry lanes; new car parks; traffic cells in towns; etc.

C.22 Key **stakeholders include**:

- Kent County Council (Rights of Way Improvement Plan); and
- Parish Councils.

C.23 SDC could easily liaise with these organisations.

T C5 PESTLE – reducing travel demand

Impact type	Study team scores				Stakeholder team scores				Comments
	Short term impact		Long term impact		Short term impact		Long term impact		
	Negative	Positive	Negative	Positive	Negative	Positive	Negative	Positive	
Political	-2		-1			+1		+4	In the short term opposition to car use in towns would be significant until excellent access by other modes is provided. High density housing might also be criticised as would increased parking charges or more restrictive parking. Nevertheless the issue is growing in importance politically, and will continue to do so.
Economic	-3		-1			+2		+4	Car restraint could impact on retailing unless excellent access by other modes is provided. But some demand management measures would generate income for public bodies e.g. higher parking charges, road-use charging. S106 agreements would generate funds for SDC. Some measures would be expensive e.g. HOV lanes.
Social		+1		+2		+1		+3	If access for alternatives to cars is improved this would benefit those from poorer communities. Impact on rural economy could be a problem if access to town centres limited.
Technological		+2		+3					New technology, e.g. automatic number plate recognition and CCTV, monitoring could enforce car restraint measures. New parking technology e.g. payment via mobile phones could make parking management easier. Home working using broadband technology would reduce travel demand.
Legal	-1								Some technologies are not yet approved for use by DfT.
Environmental		+1		+4		+1		+3	Benefits to air quality and noise would accrue due to reduced car use, as well as reducing emissions that cause climate change, so long as congestion was not merely displaced.
SCORES	**-5**	**+4**	**-2**	**+9**		**+5**		**+14**	

C.24 The study group identified some potential difficulties with these interventions that could reduce their impact, while the stakeholders did not.

Action Point 6: Improving travel awareness by encouraging travel plans and partnership working with internal and external stakeholders and transport providers. This will include looking at innovative approaches to public transport in rural areas

C.25 Examples of **travel awareness measures**:

- company and school travel plans to encourage behavioural change where infrastructure and services for alternatives to car-use exist;
- promote flexible working hours;
- walking buses and cycling trains;
- personalised trip planners;
- travel buddies for those with learning difficulties;
- integrated ticketing measures (e.g. bus/bus, bus/ rail, rail/parking);
- car-sharing; car clubs;
- joint planning by public transport operators; etc.

C.26 Key **stakeholders include**:

- Central Government;
- Local Authorities;
- Parish Council Planning groups;
- Chamber of Commerce;
- Schools;
- Businesses;
- Bus operators; and
- Walking and cycling groups.

C.27 A large number of partners could need to be involved if the wide range of smarter choices were to be introduced.

T C6 PESTLE – improving travel awareness

Impact type	Study team scores				Stakeholder team scores				Comments
	Short term impact		Long term impact		Short term impact		Long term impact		
	Negative	Positive	Negative	Positive	Negative	Positive	Negative	Positive	
Political		+2		+4	-1			+2	Support exists for such measures by the public, and most businesses. Road pricing would be controversial.
Economic		+1		+1		+2		+5	By maintaining access to activities, but by non-car modes, no adverse impacts should be observed. Revenue costs of some actions can be high e.g. car clubs, however. Tele-working using broadband could support local economic development. But if development pressure eases the ability of SDC to maintain requirements for developer contributions under S106 could diminish.
Social		+1		+3		+3		+4	Benefits those without access to private cars. Flexible working hours might benefit a range of people.
Technological		+1		+3		+1		+4	New technology enables car sharing to be more effective. Integrated ticketing is becoming common via smart cards. Mobile phones can be used to inform of real-time passenger transport information. New technology could reduce the overall demand for travel.
Legal	-1		-1		-1			+3	Travel Plans, even for new developments, are difficult to enforce. Litigation risks might arise from those injured walking/cycling top school/work. Changes in the 1985 Transport Act could benefit the use of taxis, hire vehicles and community transport.
Environmental		+1		+2		+3		+5	Benefits by reducing car dependency and use.
SCORES	**-1**	**+6**	**-1**	**+13**	**-2**	**+9**		**+23**	

C.28 Stakeholders are very optimistic concerning the likely impact of such measures over the longer term.

Action Point 7: Improving access for all including rural accessibility and access to healthcare, particularly in those areas suffering from relatively high levels of deprivation

C.29 Examples of **accessibility measures**:

- dropped kerbs and tactile paving;
- wider and continuous footways;
- more pedestrian crossings;
- regular rural buses;
- special hospital buses/ voluntary transport; travel buddies for those with learning difficulties;
- providing mobile services e.g. healthcare, libraries, shops; etc.

C.30 Key **stakeholders include**:

- Kent County Council;
- Community Transport provision;
- Bus operators; and
- Health Trust.

C.31 The District Council already partners with these bodies.

T C7 PESTLE – improving access for all

Impact type	Study team scores				Stakeholder team scores				Comments
	Short term impact		Long term impact		Short term impact		Long term impact		
	Negative	Positive	Negative	Positive	Negative	Positive	Negative	Positive	
Political		+1		+2				+1	Political support exists but support for subsiding rural buses may not be high.
Economic	-1		-3			+1		+2	Might marginally benefit economy but issue would be funding.
Social		+2		+4		+1		+2	Beneficial to rural residents, elderly and socially excluded as a means of integrating them into society. Longer life expectancy means that access to healthcare will grow in importance.
Technological				+1		+1		+2	Mobile healthcare can benefit from new technology. Real-time passenger transport information would benefit rural bus stops.
Legal									
Environmental				+1				+1	Possible minor benefits if mobile services provided.
SCORES	**-1**	**+3**	**-3**	**+8**		**+3**		**+8**	

C.32 Both the study team and the stakeholders estimated the same impact although the latter also identified some adverse impacts.

Action Point 8: Improving the environment, air quality and the quality of life

C.33 Examples of **environmental measures**:

- more stringent planning regulations concerning location;
- expand Air Quality Management Areas;
- low-emission zones;
- encourage the provision of more services (employment, education, healthcare, leisure) locally; etc.

C.34 Key **stakeholders include**:

- Government;
- SDC (Local Transport Policy, Environment);
- Regulation authorities;
- Local forums

C.35 Potentially these issues could involve inputs from a very wide range of bodies.

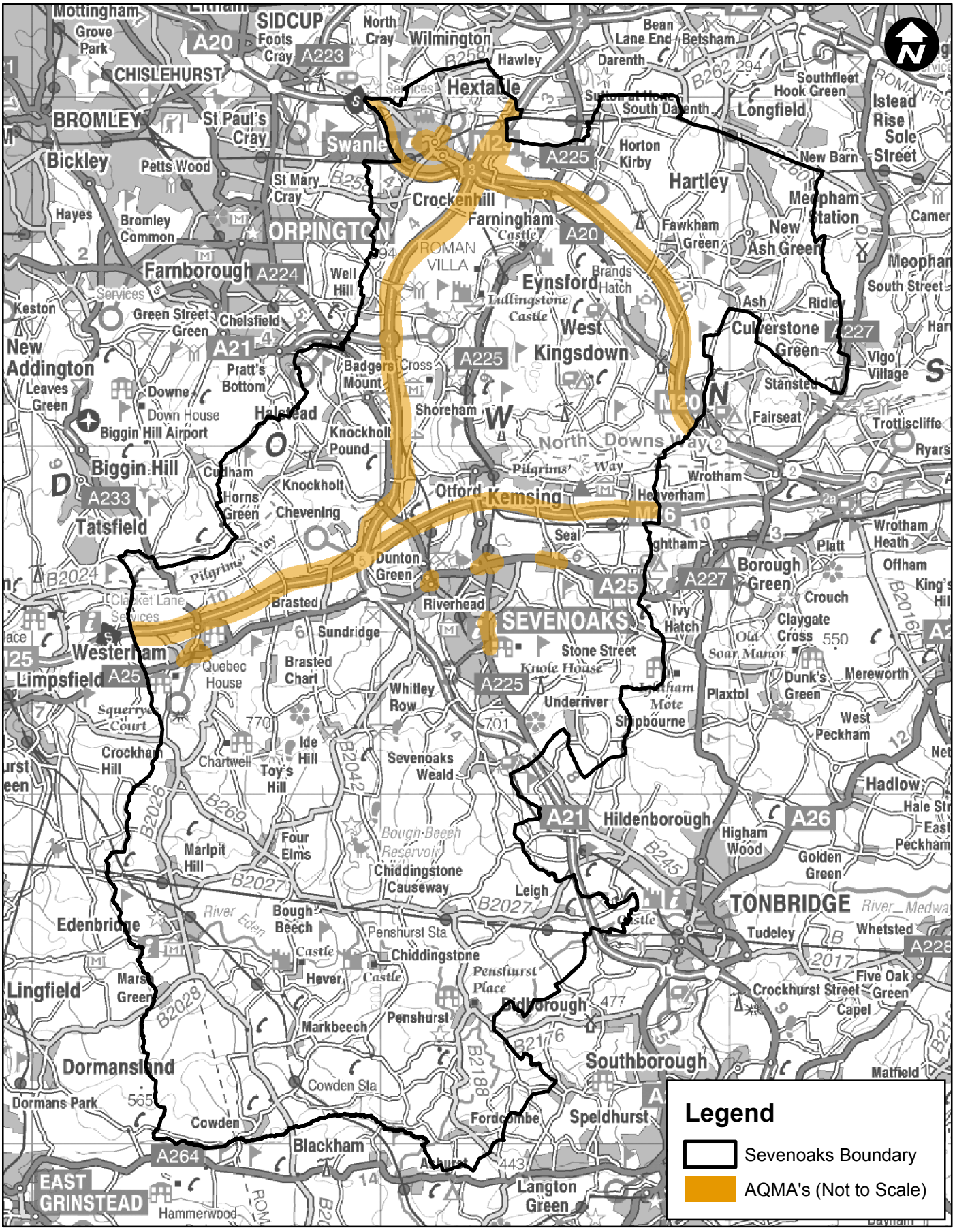
T C8 PESTLE – improving the environment, air quality and the quality of life

Impact type	Study team scores				Stakeholder team scores				Comments
	Short term impact		Long term impact		Short term impact		Long term impact		
	Negative	Positive	Negative	Positive	Negative	Positive	Negative	Positive	
Political			-1			+1		+3	Possibly beneficial depending on measures adopted. LEZ unlikely to be popular at present and possible objections to planning that concentrates development. But there is cross-party support in SDC to support the environment due to growing public awareness and concern.
Economic					-2			+1	Creation of more pleasant environment might benefit economy. Cost of some measures would be high. Home-working could benefit local economies.
Social		+1		+5		+2		+4	Benefits all groups in society. New technology, e.g. the Internet, allows home-working and improves access to services.
Technological	-1		-3			+2		+5	New fuels may obviate need for AQMAs or LEZ in time.
Legal						+3		+3	EU legislation is driving the agenda and SDC must be aware of this.
Environmental		+1		+5					Strong benefits. Environmental improvements will benefit the quality of life.
SCORES	**-1**	**+2**	**-4**	**+10**	**-2**	**+8**		**+16**	

C.36 The stakeholder group are much more optimistic about what could be achieved in the short term and long term and rank the value of this action point much higher. However the benefits of environmental improvements on the environment itself have not been recognised.

Appendix D
Air Quality Mapping

appendix D



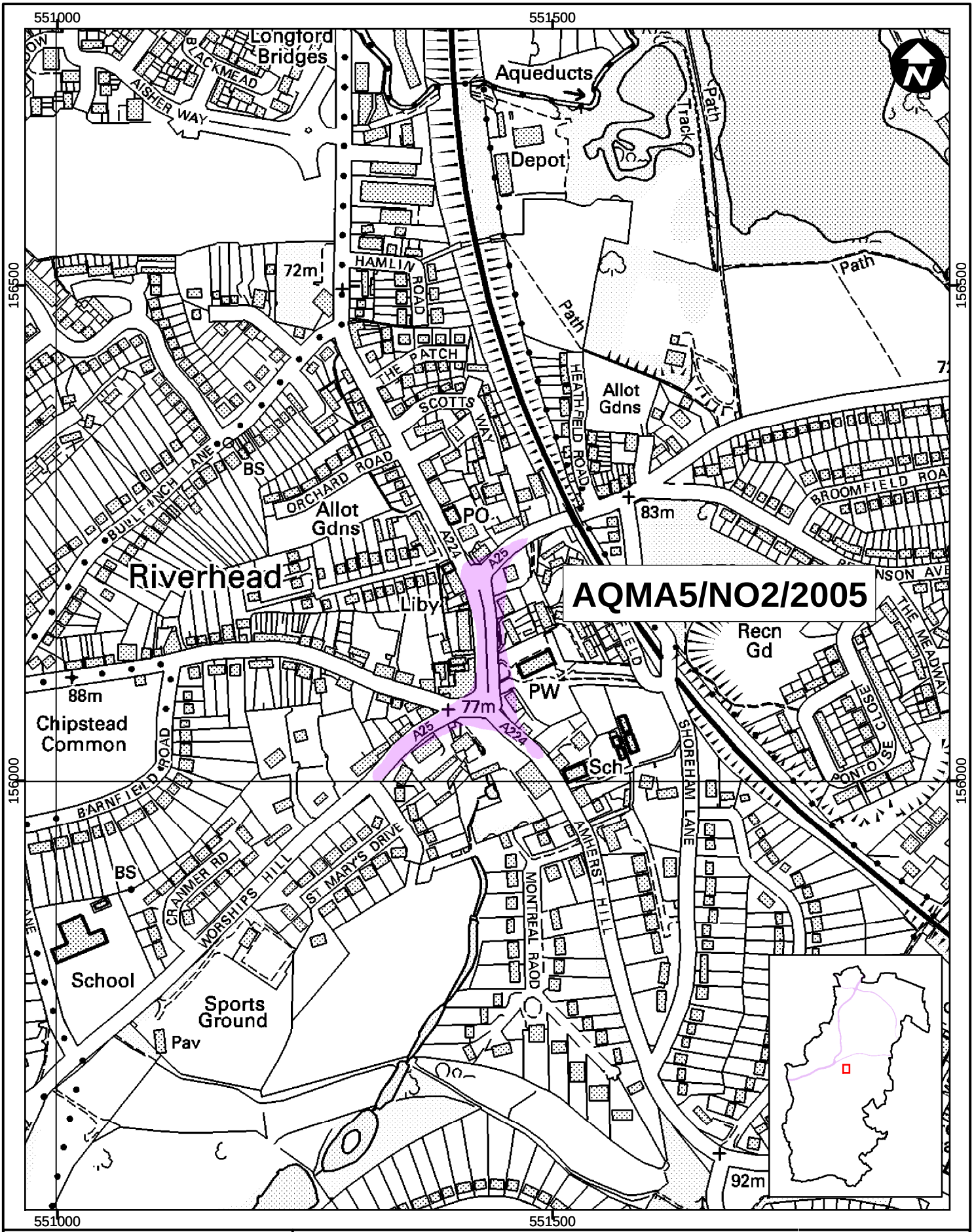
Sevenoaks DISTRICT COUNCIL

Scale: Not to Scale

Date: May 2007

AQMA's in the District of Sevenoaks

Produced by the GIS Team, Sevenoaks District Council



Sevenoaks DISTRICT COUNCIL

The Environment Act 1995 - Local Air Quality Management

MAP 7

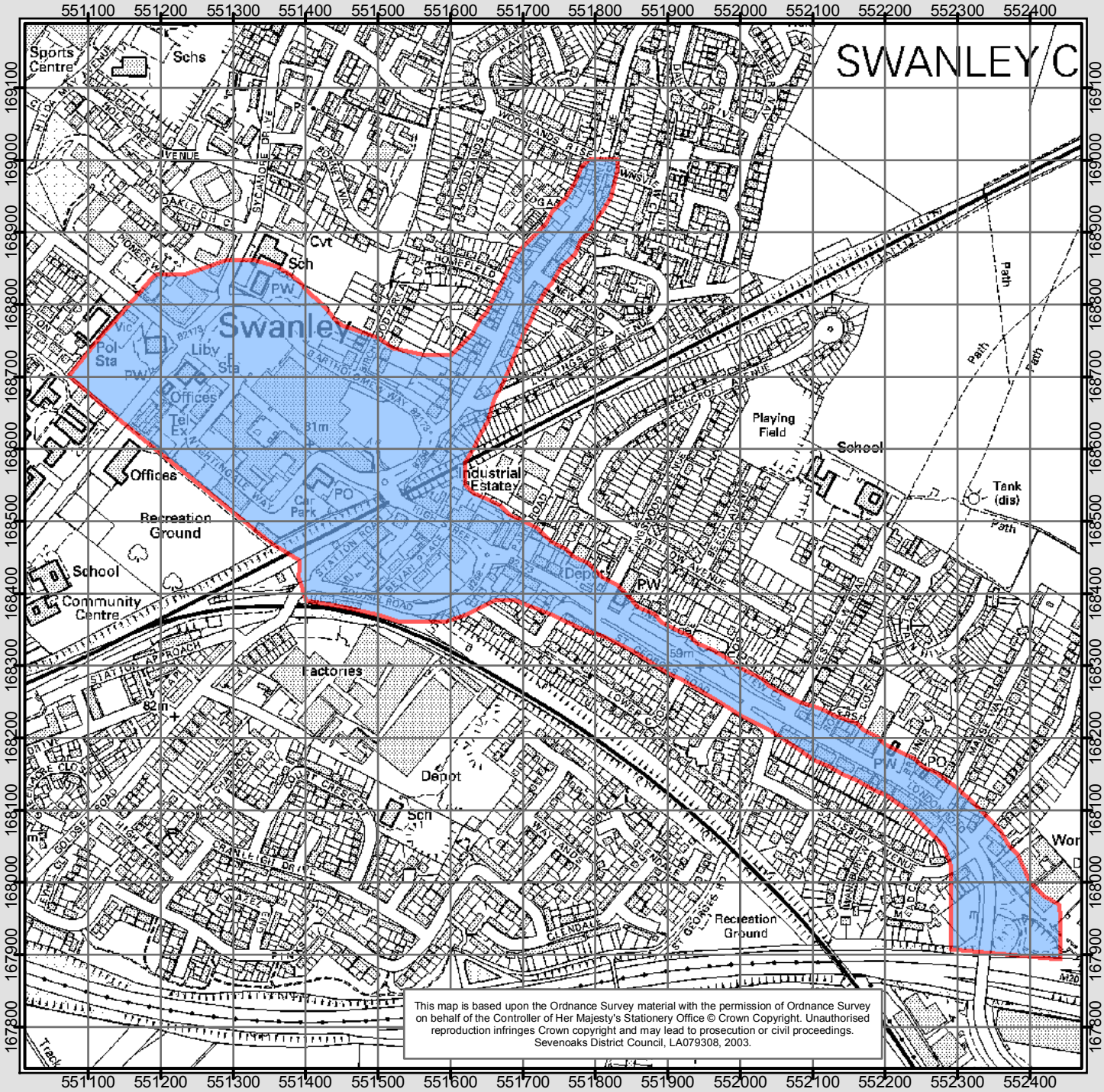
Air Quality Management Areas - Amended May 2005. Designated for Nitrogen Dioxide (Annual Mean)

Scale: 1:5,000

Date: May 2005

Data Source: Kings College London

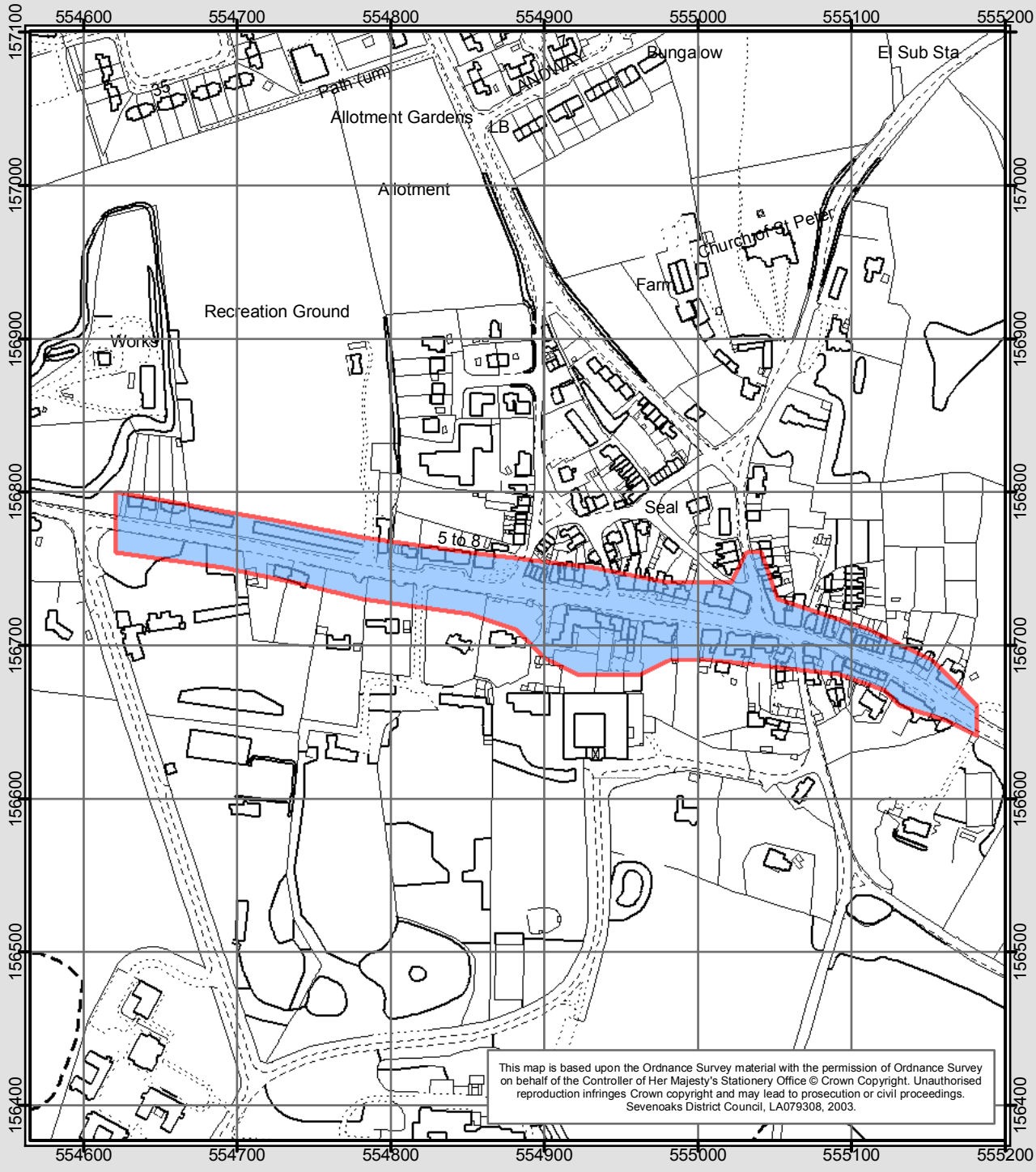
Sevenoaks District Council
Air Quality Management Area - AQMA8/NO2/2006
Swanley



Air Quality Management Area - AQMA8/NO2/2006
Swanley.
Designated for Nitrogen dioxide (annual mean) September 2006

Scale 1:8000

Sevenoaks District Council
Air Quality Management Area - AQMA9/NO2/2006
Seal



Air Quality Management Area - AQMA9/NO2/2006.
High Street, Seal. A25.
Designated for Nitrogen dioxide (annual mean) September 2006.

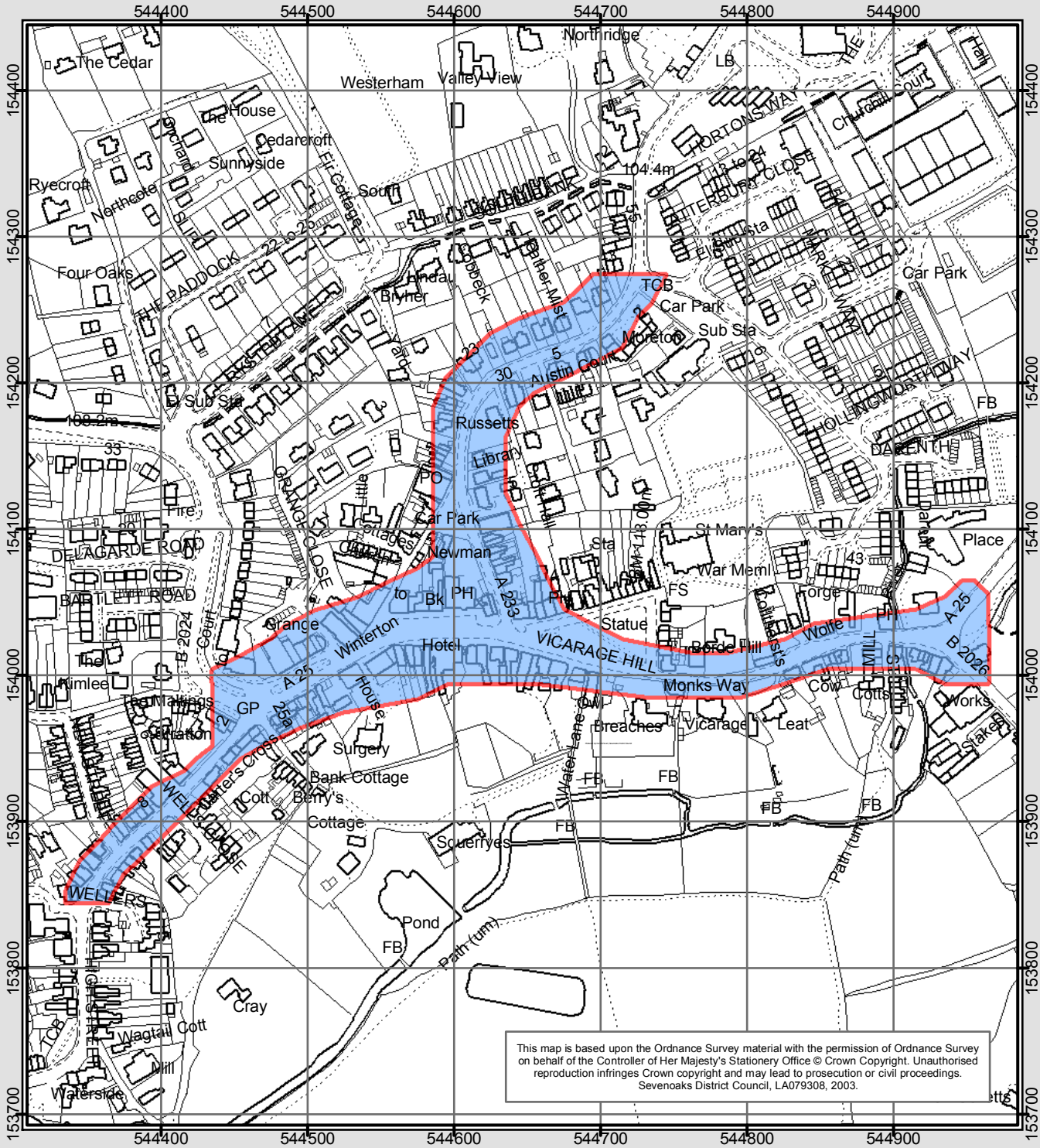
Scale 1:4000

Sevenoaks District Council
Air Quality Management Area - AQMA10/NO2/2006
Sevenoaks

Air Quality Management Area - AQMA10/NO2/2006
High Street, Sevenoaks. A225
Designated for Nitrogen dioxide (annual mean) September 2006

Scale 1:5000

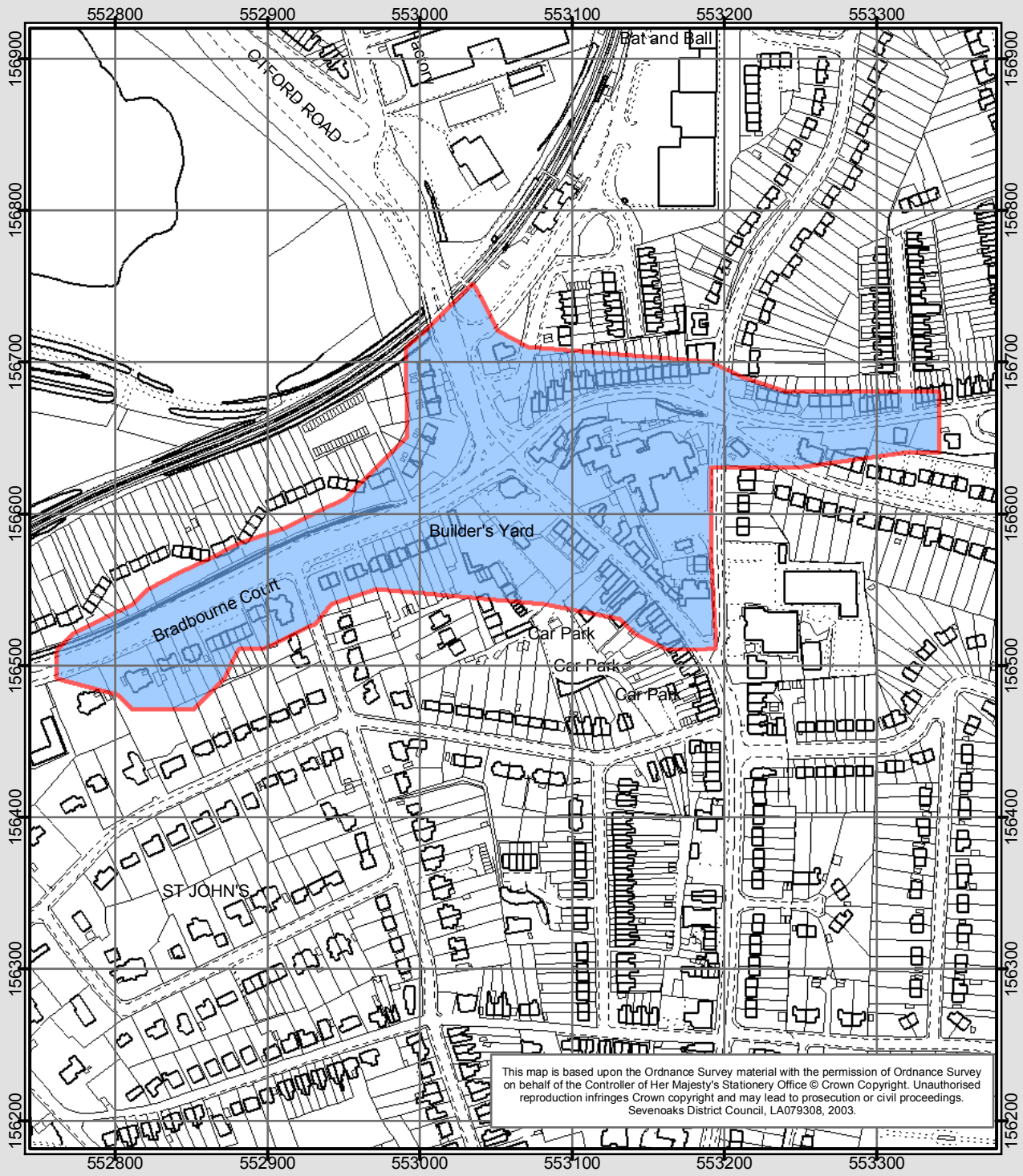
Sevenoaks District Council
Air Quality Management Area - AQMA11/NO2/2006
Westerham



Air Quality Management Area - AQMA11/NO2/2006
Westerham.
Designated for Nitrogen dioxide (annual mean) September 2006

Scale 1:4000

Sevenoaks District Council
Air Quality Management Area - AQMA12/NO2/2006
Bat & Ball



Air Quality Management Area - AQMA12/NO2/2006
Bat & Ball Sevenoaks. A225 / A25
Designated for Nitrogen dioxide (annual mean) September 2006

Scale 1:4000

Appendix E
Policy background

appendix E

EU and National Policy

European Union

Directive 2001/42/EC of the European Parliament and the Council on the assessment of the effects of certain plans and programmes on the environment (Strategic Environmental Assessment directive)

E.1 The main EU policy of relevance to this document is the EU Directive on Strategic Environmental Assessment that requires the environmental consequences of all plans, including the Sevenoaks Transport Strategy (STS), to be consistently and comprehensively assessed, prior to implementation. The aim is to minimise any potential adverse consequences of proposed interventions and to ensure that mitigation measures are undertaken as appropriate.

E.2 The purpose of the SEA-Directive is to ensure that environmental consequences of certain plans and programmes are identified and assessed during their preparation and before their adoption. The public and environmental authorities can give their opinion and all results are integrated and taken into account in the course of the planning procedure. After the adoption of the plan or programme the public is informed about the decision and the way in which it was made.

E.3 SEA is designed to contribute to more transparent planning by involving the public and by integrating environmental considerations and help to achieve the goal of sustainable development.

White Paper: European transport policy for 2010: time to decide

E.4 Published in 2001 the *European Transport Policy for 2010: Time to Decide*, sets out policy guidelines that aim, over the next 30 years, to a sustainable transport system we might hope to achieve. The measures advocated in the White Paper are the first stages of a longer-term strategy.

E.5 The EU argues for:

- adequate funding of the infrastructure to eliminate bottlenecks and to link the Community's outlying regions to its central regions. Creation of the trans-European network remains one of the preconditions for the rebalancing of transport modes. That is why it is fundamentally important that external costs, and in particular environmental costs, be internalised into the infrastructure charges that all users will have to pay;
- political determination to get the measures proposed in the White Paper adopted;
- a new approach to urban transport by local authorities which reconciles the modernisation of public services with rationalisation of private car use; this is needed to comply with the international commitments to reduce CO^2 emissions;
- satisfying the needs of users who, in return for the increasingly high cost of mobility, are entitled to expect a quality service and full respect for their rights; this will make it possible to place the user at the heart of transport organisation.

E.6 However, the common transport policy alone is not expected to provide all the answers. It must be part of an overall strategy integrating sustainable development, to include:

- economic policy and changes in the production process that influence the demand for transport;

- land-use planning policy and in particular town planning – to avoid any unnecessary increase in mobility needs caused by unbalanced urban planning;
- social and education policy, through the organisation of working patterns and school hours;
- urban transport policy at the local level and especially in large cities; and
- budgetary and fiscal policy, to link the internalisation of external, and especially environmental, costs with completion of the trans-European network.

E.7 The proposals put forward in the White Paper focus on sixty-odd measures to be taken at Community level.

National (DfT, DCLG)

Transport policy

E.8 National transport policy is set out in several documents, of which the foloowing are the most important:

- Transport White Paper, A New Deal for Transport (DfT, 1998)
- Transport White Paper, The Future of Transport (DfT, 2004)
- Smarter Choices – Changing the way we travel (DfT, 2004)
- Tomorrow's Roads – Safer for Everyone (DfT, 2000)
- Social Exclusion Unit report, Making the Connections,
- The Future of Rail White Paper (DfT 2004)
- White Paper, The Future of Air Transport (DfT, 2003)
- National Cycling Strategy (1996)
- Motorcycle Strategy
- The Ten-Year Transport Plan – Transport 2010 (DfT, 2000)
- Transport Act 2000
- Stern report – The Economics of Climate Change (The Teasury, 2006)
- The Eddington Transport Study: the Case for Action (DfT, 2006)

E.9 In the UK transport policy derives from the 1998 White Paper, *A New Deal for Transport* (DfT, 1998) which set out the approach to transport planning, including introducing five-year Local Transport Plans (LTPs). The aim is to shift travel behaviour away from private car use towards greater use of more sustainable transport: public transport, walking and cycling.

E.10 *The Ten-Year Transport Plan - Transport 2010* (DfT, 2000), allocated substantial funding to take initiatives forward. For example, it encourages innovative schemes to expand rural public transport as well as investment to provide safer roads with less impact on the environment.

E.11 A later Transport White Paper, *The Future of Transport* (DfT, 2004), set out three central themes of a strategy covering the next 30 years of transport policy and delivery in the UK:

- Sustained investment over the long term;
- Improvements in transport management; and
- Planning ahead.

E.12 The 2004 White Paper asserts the need to make "*better trade-offs across different modes of transport, and across the parallel agendas of regeneration and housing*", with better decision-making potentially being effected at the regional and local level.

E.13 Local authority actions should also be influenced by three other objectives from The Future of Transport. These aim to ensue that:

- The road network provides a more reliable and freer-flowing service for both personal travel and freight, with people able to make informed choices about how and when they travel;
- Bus services that are reliable, flexible, convenient and tailored to local needs; and
- Walking and cycling are real alternatives for local trips.

E.14 Given the government's desire to reduce car dependency and encourage other modes of travel, it is promoting *Smarter Choices – Changing the way we travel* (DfT, 2004). Measures to be encouraged include workplace and school travel plans; personalised travel planning; travel awareness campaigns; public transport information and marketing; car clubs and car sharing schemes; teleworking, teleconferencing and home shopping. Such measures can be combined with traffic restraint measures to ensure that the road space freed up by smarter choices measures is not filled up with more cars by reallocating road space for more sustainable modes of transport, traffic light phasing, parking controls, congestion measures, traffic calming, pedestrian measures, speed enforcement etc. The government believes that a much more widespread implementation of present good practice could generate:

- A reduction in peak period urban traffic of about 21% (off-peak 13%);
- A reduction of peak period non-urban traffic of about 14% (off-peak 7%); and
- A nationwide reduction in all traffic of about 11%.

E.15 The DfT set out its ambitions for improving road safety in *Tomorrow's Roads – Safer for Everyone (*DfT, 2000). A new 10-year target was set and a new road safety strategy launched. The new targets aim to help everyone to focus on achieving a further substantial improvement in road safety over the next 10 years. By 2010 the DfT wants to achieve, compared with the average for 1994-98:

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

E.16 Although the nation's overall record for child safety is relatively good, the child pedestrian record is poor compared with some European countries. The government is particularly concerned about child safety and there is therefore a special focus in the strategy on reducing the number of children who are killed or injured in road accidents.

E.17 In 2003 the Social Exclusion Unit report, *Making the Connections*, identified the problems of social exclusion caused by poor access to the main services: healthcare; education; training and employment; and fresh food shopping. Responsibility was given to the DfT to take forward the government's accessibility planning agenda to help those who are socially excluded to overcome the barriers to accessing services. Local authorities, with their partners, must now implement their accessibility strategy (part of the LTP) designed to improve access to local services and activities.

E.18 Railway policy is summarised in *The Future of Rail* White Paper, published by the DfT in 2004. This White Paper identified six key changes to build the right structure for the railway. These changes aim to drive up standards, improve overall performance and underline who is best placed to deliver:

- Government (through the DfT) has taken charge of setting the strategic direction of the railways;
- Network Rail has been given responsibility for operating the network, and crucially for its performance, timetabling and route utilisation;
- Train and track companies are expected to work more closely together e.g. via the introduction of joint control rooms;
- The role of the London Mayor is increasing, and more local decision making being introduced;
- The Office of the Rail Regulator covers safety, performance and economic regulation; and
- A better deal for freight is intended enabling the industry and its customers to invest for the long-term.

E.19 The White Paper's central assumption is that rail is a service specified by the public sector and delivered by the private sector. That means:

- The Government setting the framework and the budget;
- the Office of Rail Regulation bringing independent economic and safety regulation;
- Network Rail delivering an efficient network and taking the lead on performance; and
- Train companies delivering services for passengers.

E.20 The development of Thameslink and Crossrail in London, are seen as providing the backbone of the network in the future. But significant growth in demand is expected - perhaps 30% or more over the next 20 years. Much of that growth will need to be accommodated within the present infrastructure.

E.21 1.14 The White Paper, *The Future of Air Transport* (DfT, 2003), sets out a strategic framework for the development of airport capacity in the United Kingdom over the next 30 years, against the wider context of the air transport sector. The government's first priority is to make best use of the existing runways at the major South East airports. Beyond that, it supports the building of two new runways in the region in the period to 2030.

E.22 The National Cycling Strategy (1996) provides a framework for increasing the number of journeys made by bicycle. Originally it contained a headline target of quadrupling cycling trips between 1996 and 2012. Although this target has been dropped, in favour of more robust local targets set by local authorities, the government remains "*strongly committed to the overall goals of the strategy.*"

E.23 The key strategic objectives of the National Cycling Strategy are summarised as follows:

- Key destinations being more accessible by bicycle, including integration with public transport;
- Improved safety;
- Road space and priority given to cyclists;
- Cycle parking facilities at all major destinations;
- Reduced levels of cycle theft (through better security devices and registration schemes);
- The dissemination of best practice and promotional programmes;
- Adequate resources for cycling for local authorities, both staff and funding; and
- Monitoring of progress.

E.24 The Government's *Motorcycle Strategy* requires authorities to take account of the needs of motorcyclists, promoting safety measures and mainstreaming motorcycling, so that its needs are considered as fully as any other transport mode, in the development of transport policy.

E.25 Legislation enabling local authorities to enter into Quality Bus Partnerships and Contracts with operators was introduced by the *Transport Act 2000*. The Act also provides for the introduction of workplace parking charges and congestion charging, which, although of primary concern for urban areas, could significantly influence travel into towns from the countryside.

E.26 The Transport Act 2000 also introduced the requirement of local highway authorities to prepare Local Transport Plans (LTPs) through which local transport planning is carried out. Devised at local level in partnership with the community, LTPs set out 5-year comprehensive integrated transport strategies for their area, linked to local development and regeneration proposals. They also contain costed programmes to improve local transport, used as the basis for making capital allocations to local highway authorities. Sevenoaks District is covered by the Kent LTP, prepared by Kent County Council (KCC).

E.27 In UK transport policy terms, LTP2 is intended to take account of, and help deliver, the Government's vision for transport set out in The Future of Transport: 2030, and in the Ten-Year Plan. The shared priorities for transport agreed between central and local Government are also central.

E.28 The recent publication of the Stern report, *The Economics of Climate Change*, will shift investment priorities towards sustainable transport modes and away from providing for higher traffic levels. Stern argues that there is still time to avoid the worst impacts of climate change, if we take strong action now. The scientific evidence is now overwhelming: climate change is a serious global threat, and it demands an urgent global response. This Review has assessed a wide range of evidence on the impacts of climate change and on the economic costs, and used a number of different techniques to assess costs and risks. From all of these perspectives, the evidence gathered by the Review leads to a simple conclusion: that the benefits of strong and early action far outweigh the economic costs of not acting. Climate change will affect the basic elements of life for people around the world – access to water, food production, health, and the environment. Using the results from formal economic models, the Review estimates that if we don't act, the overall costs and risks of climate change will be equivalent to losing at least 5% of global GDP each year. If a wider range of risks and impacts is taken into account, the estimates of damage could rise to 20% of GDP or more. By contrast, the costs of action – reducing greenhouse gas emissions to avoid the worst impacts of climate change – can be limited to around 1% of global GDP each year.

E.29 Meanwhile, *The Eddington Transport Study: the Case for Action* (DfT, 2006) argues for Government to continue to deliver sustained investment, targeted in those places with significant congestion including improving access to the ports and airports. This Study demonstrates that the performance of the UK's transport networks will be a crucial enabler of sustained productivity and competitiveness: a 5 per cent reduction in travel time for all business travel on the roads could generate around £2.5 billion of cost savings – some 0.2 per cent of GDP. Good transport systems support the productivity of urban areas, supporting productive labour markets, and allowing businesses to reap the benefits of agglomeration. Transport corridors are the arteries of domestic and international trade, boosting the competitiveness of the UK economy.

E.30 Correspondingly, transport policies offer some remarkable economic returns with many schemes offering benefits several times their costs, even once environmental costs have been factored in. To sustain future productivity, transport policy must reflect the economic and structural changes that are shaping the UK's transport needs, according to Eddington. The significance of cities and large urban areas, as highly productive centres

of the service-based economy, is growing: 55 per cent of commuter journeys are to large urban areas and 89 per cent of delay caused by congestion is in urban areas.

E.31 Whilst much of the system works well, it is clear that some parts of the system are under severe strain, and looking ahead, significant transport challenges are looming. Continued economic success is forecast to lead to rising demands – if left unchecked 13 per cent of traffic will be subject to stop-start travel conditions by 2025. The study shows that the strategic economic priorities for long term transport policy should be growing and congested urban areas and their catchments; the key inter-urban corridors; and the key international gateways.

Land-use planning

E.32 A key driver of UK Government land-use policy is the Sustainable Communities Plan (2003) which sets out a long-term programme of action for delivering sustainable communities in both urban and rural areas. It aims to tackle housing supply issues in the South East and the quality of public spaces. It has formalised approaches to planning and redevelopment which hold social objectives as equally important as the physical elements of growth.

E.33 The Planning and Compulsory Purchase Act (2004) introduced a number of changes to the land-use planning system at the regional level. Regional Spatial Strategies (RSSs) will replace the Regional Planning Guidance (RPG) and the Regional Transport Strategy (RTS). For Sevenoaks District the RSS is being prepared by the Regional Planning Body, the South East of England Regional Assembly (SEERA) – see below. RSSs are more specific than RPG: strategy rather than guidance. They provide the spatial framework within which LTPs can be prepared, as well as Local Development Documents (LDDs). RSSs provide regional priorities for the environment, housing, economic development land development and re-development, as well as transport investment, over a 15 to 20 year period. LTPs must be consistent with these.

E.34 Local Development Documents (LDDs) contain a Local Development Framework (LDF). LDDs will replace local plans and the countywide Structure Plan. LDDs should be consistent with the Community Strategy for the area, and set out the spatial aspects for the delivery of the local authority's vision for the area, as defined in the Community Strategy. An LDF will comprise development plan documents, supplementary planning documents, a statement of community involvement, a local development scheme and annual monitoring reports. For the majority of planning applications, the Local Planning Authority (LPA) is the District or Borough Council, such as Sevenoaks District Council (SDC).

E.35 In general the introduction of RSSs and the development of LDFs has brought about a shift in the focus of planning principles, whereby 'spatial planning' takes place rather than land use planning. This emphasis on the spatial dimension a whole town approach that deals with both the physical environment and the full range of activities within it to provide integrated technical, social, economic and design solutions.

E.36 The spatial approach is particularly suited to the current planning and development conditions in Sevenoaks District. Sites will come forward for development providing an opportunity to resolve some of the problems created by the piecemeal approach to development planning in the past.

E.37 National Planning Policy Guidance (PPG), which is currently being replaced with Planning Policy Statements (PPSs), supports national land-use policy. Of particular relevance are PPG 3 (Housing), PPS 6 (Planning for Town Centres), PPS 7 (Sustainable Development in Rural Areas), PPS 11 (Regional Spatial Strategies), PPS 12 (Local Development Frameworks) and PPG 13 (Transport). Local Planning Authorities must follow the principles of land-use planning set out in the PPGs and PPSs which are designed to influence the broad patterns of settlement and when they respond to individual development proposals.

E.38 Local Planning Authorities respond to proposals for development by determining planning applications. They are likely to consider the accessibility of a proposed development, as well as discussing with the developer the promotion of accessibility. SDC has a significant role to play in ensuring that key services are sited in the most accessible possible areas, and mixed land use in a central location accessible by several modes of transport.

PPG 13

E.39 The key aims of PPG13 (Transport) are to:

1. Promote sustainable transport choices for both people and for moving freight
2. Promote accessibility to jobs, shopping, leisure facilities and services by public transport, walking and cycling
3. Reduce the need to travel, especially by car

E.40 This guidance sets out the circumstances where it is appropriate to change the emphasis and priorities in provision between different transport modes, in pursuit of wider Government objectives. The car will continue to have an important part to play and for some journeys, particularly in rural areas, PPG13 acknowledges that it will remain the only real option for travel.

E.41 In order to deliver the objectives of PPG13, when preparing development plans and considering planning applications, local authorities should:

- actively manage the pattern of urban growth to make the fullest use of public transport, and focus major generators of travel demand in city, town and district centres and near to major public transport interchanges;
- locate day to day facilities which need to be near their clients in local centres so that they are accessible by walking and cycling;
- accommodate housing principally within existing urban areas, planning for increased intensity of development for both housing and other uses at locations which are highly accessible by public transport, walking and cycling;
- ensure that development comprising jobs, shopping, leisure and services offers a realistic choice of access by public transport, walking, and cycling, recognising that this may be less achievable in some rural areas;
- in rural areas, locate most development for housing, jobs, shopping, leisure and services in local service centres which are designated in the development plan to act as focal points for housing, transport and other services, and encourage better transport provision in the countryside;
- ensure that strategies in the development and local transport plan complement each other and that consideration of development plan allocations and local transport investment and priorities are closely linked;
- use parking policies, alongside other planning and transport measures, to promote sustainable transport choices and reduce reliance on the car for work and other journeys;
- give priority to people over ease of traffic movement and plan to provide more road space to pedestrians, cyclists and public transport in town centres, local neighbourhoods and other areas with a mixture of land uses;
- ensure that the needs of disabled people as pedestrians, public transport users and motorists - are taken into account in the implementation of planning policies and traffic management

schemes, and in the design of individual developments; consider how best to reduce crime and the fear of crime, and seek by the design and layout of developments and areas, to secure community safety and road safety; and

- protect sites and routes which could be critical in developing infrastructure to widen transport choices for both passenger and freight movements.

Regional Policy (SEERA, SEEDA)

RPG6

E.42 In terms of regional policy, Regional Planning Guidance (RPG) 9 is the currently adopted guidance, covering the period to 2016 and providing a regional framework advocating economic success and environmental improvement through a more sustainable pattern of development. The South East England Regional Assembly (SEERA) has produced a draft South East Plan, the Regional Spatial Strategy (RSS), which will replace RPG9 when adopted by the Government.

South East Plan

E.43 The South East Plan is expected to be adopted in 2007 or 2008. It sets out the required housing provision for the area: the distribution of the 122,000 new dwellings in Kent concentrates provision in the growth areas of Ashford, Medway and Dartford. This growth has the potential to generate significant demand for travel across the County and so there needs to be commensurate improvements to the major road network, rail and bus services, and funding for maintenance and integrated transport measures. Demand management is expected in the RSS to be key to enabling the residents and businesses of Kent to function effectively in the future.

RTS

E.44 The Regional Transport Strategy (RTS) provides the regional framework to ensure that the investment by local transport authorities and other transport organisations support the wider regional objectives. In the RTS policies on transport are focussed on a set of core principles – managing and investing in the network, the rural dimension, regional hubs and spokes, communication technology, mobility management, road pricing and charging, gateways and freight. The RTS also contains policies and priorities for investment in transport, and identifies the LTP as one of the delivery mechanisms for this investment.

E.45 The RTS stresses the need for local authorities to give priority to improving accessibility by public transport, walking and cycling at transport hubs as well as encouraging higher density development and giving priority to high quality interchange facilities.

RES

E.46 Regional Development Agencies (RDAs) are “strategic drivers of regional economic development in their region”, and produce Regional Economic Strategies (RESs), identifying the economic priorities for the region and their land-use and transport implications with a 5 to 10 year Action Plan. Under the Regional Development Agencies Act 1988, each RDA has five statutory purposes, as follows:

- To further economic development and regeneration;
- To promote business efficiency, investment and competitiveness;
- To promote employment;
- To enhance development and application of skill relevant to employment; and
- To contribute to sustainable development.

E.47 The Regional Economic Strategy (RES) for South East England, published by the South East England Development Agency (SEEDA), is built on six drivers of regional prosperity, one of which is the recognition of the need to develop better infrastructure, including a more effective transport system. The draft RES identifies key actions in Kent which are required to improve the connectivity of the transport network and reflect regional economic priorities. These include improved surface access to Dover, maximising traffic on the Channel Tunnel Rail Link (CTRL), transport projects in the Thames Gateway and Ashford, and completion of the Thameslink project.

The London Plan 2004

E.48 London has a significant impact on the Sevenoaks District. Around 40% of the working population commutes into the capital for work. The county has good radial routes (both road and rail) from London, but these are often operating at (or near) capacity. Published in 2004, the London Plan (The Spatial Development Strategy) sets out the vision of the Mayor to address the issues arising from planned growth. The aim is to develop London as a sustainable world city, based on three interwoven themes:

- Strong, diverse long term economic growth;
- Social inclusivity to give all Londoners the opportunity to share in London's future success; and
- Fundamental improvements in London's environment and use of resources.

Appendix F

Community Plan
Public Consultation

appendix F

Community Plan Public Consultation

F.1 Among the priorities set out by residents of Sevenoaks District the following relate to land-use planning and transport:

- Design safe public areas;
- Make roads and footways safer for pedestrians;
- Make public transport safer;
- Provide good support that is local and accessible;
- Give better access to services for people in rural areas;
- Increase opportunities for older people;
- Work to reduce social exclusion in identified areas;
- Protect the natural beauty of the District;
- Protect the historic character of towns and villages;
- Deal with the tension between the need for affordable housing and employment land and the need to protect the landscape;
- Protect open spaces;
- Promote fuel economy measures and conserve natural resources;
- Improve air quality;
- Promote green transport; walking, buses, cycling;
- More services should be delivered locally;
- Support and maintain community hospitals;
- Provide more outreach services;
- Promote use of leisure facilities and open spaces;
- Ensure access to local services and facilities for people with disabilities;
- Reuse buildings for employment uses;
- Enable people to work where they live;
- New housing developments should provide better parking;
- Enable people with disabilities to access transport;
- Promote existing transport links;
- Deal with congestions, potholes and poor pavements;
- Provide a more flexible transport system e.g. dedicated bus services; and
- Cycling and other green transport is important.

Appendix G
Transport data bank

appendix G

T G1 Sevenoaks data bank

Code	What is the name of the data set?	Can you briefly describe the data set?	What geographical area is covered? • Specific location • Ward • Town • District • County • Region	What time period does the data cover?	What level of dis-aggregation does the data set go to: • Transport mode • Gender • Age group • Disability	How was the data gathered?: • Automatic counts • Visual survey • Interview survey • Postal survey • Diary records • Focus group discussion	In what format is the data set held: • Paper • Electronic	Who is the holder of the data set?	What are their contact details: • Organisation • Address • Tel number • Email	Quality of data: • for information only • quantitative data used as indicator only • robust quantitative data
01	Drivers records	BSOG data, mileage per day to day centres, lunch clubs, shopping trips	Sevenoaks area	Aggregate data for 7 years, but no individual data	Confidential, mileage per day, destinations/ clients, historic aggegate data would require research	Driver records	Paper	Gill Shepherd-Coates	Age Concern Sevenoaks The Cobdden Centre Cobden Road Sevenoaks TN13 3UB 01732 454108 office@ageconcern7oaks.co.uk	Quantitative data used as indicator only
02	Dartford/ Sevenoaks Minibus	Elderly people using minibus to travel to city centre	Would need to extract data manually (Sevenoaks minibus and one 12 seater)	N/A	Gender; Age	Schedules for drivers	Paper and electronic, but difficult to extract	John Arnold	Age Concern Swanley Swanley High Street Swanley BR8 8AE 01322 666118 ageconcern@ic24.net	For information only
03	Passenger Boardings		Sevenoaks District Council	Annual	Transport Mode i.e ARRIVA Bus Services	From electronic ticket machine data	Electronic	Malcolm Spalding (also supplied to KCC)	ARRIVA Southern Counties Invicta House Armstrong Road Maidstone 01622 697000 spaldingsm.sc@arriva.co.uk	Robust quantatative data

04	Schedule Data	Travel to day centres/ shopping by mobility-impaired (using 8 vehicles incl 6 minibuses with lifts)	Kent (including Sevenoaks), Surrey	7 years	No personal data kept; mileages and original-destination data available	Schedules of over 100 journeys per day (5 days a week)	Paper & Electronic	Betty Howell (CExec)	Compaid Trust 29 Herons Way Pembury Tunbridge Wells TN2 4DW 01892 824060	For information only
05	CENSUS 2001	UK-wide travel behavious information	Various levels: England, County, District, LA, Ward, Super Output Areas	2001	Transport Mode, Age, Household size	Postal survey	Electronic	Office for National Statistics (ONS)	Customer Contact Centre Room 1.015 Office for National Statistics Cardiff Road Newport NP10 8XG 0845 601 3034 http://www.statistics.gov.uk/census/default.asp	Robust quantatative data
06	Edenbridge Health Check	NK	Town & Local Distric	N/A	All aspects of town including transport	N/A	N/A	Christine Lane, Town Clerk	Edenbridge Town Council Doggetts Barn 72A High Street Edenbridge Kent TN8 5AR 01732 865368 clerk@edenbridgetc.kentparishes.gov.uk	Quantitative data used as indicator only/ for information only
07	TRADS database	Recent traffic flow data from HA network	Motorway Network	Ongoing	No disaggregation	ATC	Electronic	Highways Agency	Highways Agency http://www.trads2.co.uk/ request login through http://www.trads2.co.uk/tradsii/admin_user_request_add.php	Robust quantatative data
08	Kent County Crash Database	Contains information on all personal injury crashes that have occurred in the County over the most recent 10 year period.	The whole County.	10 years	D-report information from Kent Police, how the accident happened, time, date, weather conditions, form of transport involved etc.	From Kent Police crash reports.	Electronic	Jacobs Babtie	Jacobs Babtie Miller House 43-51 Lower Stone Street Maidstone ME15 6GB 01622 666000	Robust quantatative data

09	Traffic data	Contains information on all traffic surveys that have been carried out, count/speed/origin-destination/time delay/queue length etc.	Specific locations around the County where surveys have been carried out.	10 years	Some surveys include classified counts (type of traffic).	Automatic and manually depending on the type of survey carried out.	Electronic	Jacobs Babtie	Jacobs Babtie Miller House 43-51 Lower Stone Street Maidstone ME15 6GB 01622 666000	Robust quantatative data
10	Traffic Flow Counts	Recent traffic flow data from HA network	M20, M25, M26, A21	Ongoing	No disaggregation; some ATC recognise modes axle counts,	ATC, induction loop	Electronic	Jacobs Babtie	Jacobs Babtie School Green Shinfield Reading Berkshire RG2 9HL 0118 988 1555 hatraffic@jacobs.com	Robust quantatative data
11	Countryside Access Improvement Plan	GIS Mapping system containing suggested improvements to rights of way. Includes existing ROW network, walking bus routes, promoted routes. E.t.c	Kent	N/A	All	Interview, Focus Groups and Research	Electronic	Colin Finch	Kent County Council 2nd floor Invicta House County Hall Maidstone ME14 1XX 01622 696322 colin.finch@kent.gov.uk	Robust quantatative data
12	School Data (PLASC)	Journey to school	All schools in Kent (not private?)	Day of the survey	Transport Mode	Hands up survey	Hopefully electronic (don't have it yet)	KCC Education, via David Joyner, Sustainable Transport Manager	Kent County Council Room IH-1 Invicta House County Hall Maidstone ME14 1XX david.joyner@kent.gov.uk 01622 696852	For information only

13	Kent Travel Report (2005)	Traffic and mode split data	Various sites across Kent	Various	Vehicle flows and some mode share across town centre cordons (possibly Sevenoaks?)	Automatic counts Visual survey	Electronic	John Lucock	Kent County Council Strategy Team Invicta House County Hall Maidstone ME141XX	Robust quantatative data
14	Conman 06/07	Dataset contains relevant information so that KCC are able to assess performance of its supported services	KCC supported bus services assigned to Sevenoaks District	April 2006 to March 2007(periods Feb & March estimated from period 1 to 10 data)	Only subdivided into revenue, rural grant funds and service mileage;* Revenue support pax. – 484,795* Rural fund service pax. – 76,844* Total service mileage – 655,829 miles* Number of supported serices – 38	Manual returns are provided by operators contracted to KCC as part of conrtact t&c	Paper	Transport Integration	Kent County Council Transport Integration Gibson Drive Kings Hill West Malling ME19 4QG	Quantitative data used as indicator only
15	National Passenger Survey	Information covering satisfaction levels of customer for 31different markers	By Southern network	Annual	None	By survey	Electronic	Passenger Focus	Passenger Focus http://www.passengerfocus.org.uk/your-experiences/content.asp	Quantitative data used as indicator only
16	Transport to Hospital	Mileage of cars	Drive outside SDC area, Pembury, Sussex, London, M25	Back to beyond 2000	41,000 miles per year approximately , no more detail, 35 voluntary drivers	Records of voluntary drivers claims	Paper, Annual counts	Bridget Harris	Public Transport Manager Edenbridge Voluntary Transport Agency 40 Edenbridge Hospital Mill Hill Edenbridge TN8 5DA 01732 865353 bchl@bridgetharris.freeserve.co.uk	Quantitative data used as indicator only

17	Station Usage	Indicates passenger demand using Ticket and sales revenue. Shows estimates of the numbers of entries, exits and interchanges at every station.	Nationally data – available by each station.	Annual	None – by passenger only.	The estimates are derived from LENNON (sales data), based on the origin, destination and route code information.	Excel spreadsheet	Office of Rail Regulator	Rail Regulator http://www.rail-reg.gov.uk/server/show/nav.1379	Robust quantatative data
18	School Travel Plans	No of schools with school Travel Plans	SDC schools operating School Travel Plans	Current	Some data on transport modes	Application/ information provision	Paper	Hayley Brooks	SDC Council Offices Argyle Road Sevenoaks TN13 1HC 01732 227272	For information only
19	Streets Ahead	Primary childern walking to school	15 SDC schools covering 2,500 children	2001-2006, except 2004	Transport mode, not for secondary schools	Vusual curvey, leading to written survey collected by schools	Paper, from now in speadsheet	Hayley Brooks	SDC Council Offices Argyle Road Sevenoaks TN13 1HC 01732 227272	For information only
20	Walking Buses	No of schools with walking buses	4 SDC schools operate walking buses	Current	Data on children covered could be got	Application/ information provision	Paper	Hayley Brooks	SDC Council Offices Argyle Road Sevenoaks TN13 1HC 01732 227272	For information only
21	Parking orders	Copies of TOs	Built-up areas; maps with restrictions of on/ off-street parking; charges (Council-managed); no station data	Histrorical	Lengths of road; plans for future restrictions; car park scales/ capacity	Visual survey; manual counts of car park use (once per month); ticket sale info	Paper (Electronic in future)	Andy Bracey	Sevenoaks DC Council Offices Argyle Road Sevenoaks TN13 1HG 01732 227000	Partly quantitative data used as indicator only

22	Air Quality	Pollutant predictions, pollutant measurement	AQMAs: Sevenoaks HighStreet; A21 Bat & Ball Jctn; A25 Seal high Street; Westerham high Street; Riverhead A25/ A224; Swanley Town Centre; M25, M26, M20, A20 (Swanley Bypass); A224 Riverhead	5 years (oldest); 1 year (recent AQMAs)	Nox (Diffusion tubes); PM10; background site for range of pollutants	Diffusion tubes; manual diffusion tubes	Electronic	Malcolm Webb (SDC)/ Kings College London	Sevenoaks DC Council Offices Argyle Road Sevenoaks TN13 1HG 01732 227000	Robust quantatative data
23	Dunton Green Traffic Data	ATC, MCC, Queue lengths	A224 London Road - Dunton Green (Station Road, Tesco)	Nov/ Dec 2006	ATC: None, MCC: Transport Mode	Automatic (speed bin), manual counts	Electronic	Matthew Hogben	Sevenoaks DC Council Offices Transportation Argyle Road Sevenoaks TN13 1HG 01732 227357 matt.hogben@sevenoaks.gov.uk	Robust quantatative data
24	Farningham Traffic Data	ATC, MCC, Queue lengths	A20 London Rd Farningham	Nov/ Dec 2006	ATC: None, MCC: Transport Mode	Automatic (speed bin), manual counts	Electronic	Matthew Hogben	Sevenoaks DC Council Offices Transportation Argyle Road Sevenoaks TN13 1HG 01732 227357 matt.hogben@sevenoaks.gov.uk	Robust quantatative data
25	Network Accessibility to The 7oaks DC offices	Public transport accessibility to Sevenoaks town centre	Kent	Current (2007)	None	N/A	Mapping (Electronic) within staff travel plan	Matthew Hogben	Sevenoaks DC Council Offices Transportation Argyle Road Sevenoaks TN13 1HG 01732 227357 matt.hogben@sevenoaks.gov.uk	For information only

26	Riverhead Traffic Data	ATC, MCC, Queue lengths	A224 London Road - Dunton Green (Bullfinch, Riverhead)	Nov/ Dec 2006	ATC: None, MCC: Transport Mode	Automatic (speed bin), manual counts	Electronic	Matthew Hogben	Sevenoaks DC Council Offices Transportation Argyle Road Sevenoaks TN13 1HG 01732 227357 matt.hogben@sevenoaks.gov.uk	Robust quantatative data
27	Sevenoaks Traffic Data	ATC, MCC, Queue lengths	A224 Tubs Hill - Sevenoaks, A224 London Road - Sevenoaks	Nov/ Dec 2006	ATC: None, MCC: Transport Mode	Automatic (speed bin), manual counts	Electronic	Matthew Hogben	Sevenoaks DC Council Offices Transportation Argyle Road Sevenoaks TN13 1HG 01732 227357 matt.hogben@sevenoaks.gov.uk	Robust quantatative data
28	Elderly Shopping Bus Service	Names of registered users	This services covers the whole of the district area	Last two years	Name & address, gender, destinations	Automatic Counts	Paper & Electronic	Direct Services	Sevenoaks Direct Services Dunbrik Depot 2 Main Road Sundridge, Kent steve.allard@sevenoaks.gov.uk	Quantitative data used as indicator only
29	Brighter Futures Project	Not just transport, but to help elderly maintain active lifestyle	NA	Quarterly data since Nov 2005	Journey type: Gender: Destination (hospital/ social activity eg. shopping); Age: Mobility impairments but no wider analysis	Bookings of driver staff records	Electronic (Access database)	Mandy Wynne	Sevenoaks Volunteer Bureaux 34 Buckhurst Avenue Sevenoaks TN13 1LZ 01732 454785 info@sevenoaksvolunteers.org.uk	For information only
30	Passenger Numbers	see above	Town & Country	2001 to date	Transport mode	Automatic counts	Electronic	Peter Eldridge	Southeastern Railway 41-45 Blackfriars Road London SE1 8PG 020 7620 5200 peter.eldridge@southeasternrailway.co.uk	Robust quantatative data
31	Station footfall figures	see above	Town & Country	2001 to date	Transport mode	Automatic counts	Electronic	Peter Eldridge	Southeastern Railway 41-45 Blackfriars Road London SE1 8PG 020 7620 5200 peter.eldridge@southeasternrailway.co.uk	Robust quantatative data

32	Complaint/ Query data	All contacts to our customer services department	By postcode	Every 4 weeks	None	Automatic	Electronic	Southern Railway	Southern Railway yvonne.leslie@southernrailway.com	For information only
33	Performance	Shows the number of trains arriving on time.	All areas.	Daily, monthly, moving annual average	1. Peak time trains to and from London. 2. All trains, every day	Automatic	Electronic	Southern Railway	Southern Railway yvonne.leslie@southernrailway.com	Robust quantatative data
34	Train loadings	Indicators of how many passengers are on a train at any one time	By train	Any/annual counts	None	Some automatic throuh automatic weighing equipment; some through manual counts	Electronic	Southern Railway	Southern Railway yvonne.leslie@southernrailway.com	Robust quantatative data
35	National Cycle Network	Map of network, route map of suggested regional route	Kent	Current (2007)	None	N/A	Electronic	David Young	Sustrans Projects Co-ordinator South East Little Gregg Barn Gregg Lane Headcom TN27 9LT 01622 892368 davidandjayne.young@tesco.net	For information only
36	Pegasus	Client statistics: monthly usage; mileage; destinations (500 data sets)	NA	From 2000 (Paper) From March 2007 (Electronic)	Profile: Blue Badge: Doctor: Date of Brith: Name & address: mobility Impairment: destination	Diary based from driver	Paper (from 2000); Electronic (from March 2007)	Apuline Annetts	Swanley Volunteer Centre Library & Info Centre London Road Swanley BR8 7AE 0845 241-2180 info@swanleyvolunteer.org.uk	Quantitative data used as indicator only

37	LATS Survey	Multimodal origin-destination data based on roadside interviews, household interviews and traffic counts	London and the neighbouring districts and are available at London borough, ward, postcode district and transport zone levels	1991, ongoing decennially	Postal Address; household survey captured households; roadside and public transport surveys captured individual trips.	60,000 households in HI survey, over 800 RSI sites, large-scale Public transport surveys	Electronic	TfL	TfL Romulus http://romulus.tfl.gov.uk/webview/ request login from romulusadmin@tfl.gov.uk	Robust quantatative data
38	Annual traffic count data	Cordon count around tonns	Sevenoaks Town, possibly other urban areas	Annual	Transport mode	Automatic counts, manual pedestrian counts	Paper & Electronic	Bryan Fitzgerald	West Kent Highway Services Joynes House, New Road, Gravesend, DA11 0AT 01474 544088 bryan.fitzgerald@kent.gov.uk	Robust quantatative data
39	Personal injury data	Validated data sourced from Kent Police	District	Up to 10 years	All	Crash reports from the scene	Electronic	Bryan Fitzgerald	West Kent Highway Services Joynes House, New Road, Gravesend, DA11 0AT 01474 544088 bryan.fitzgerald@kent.gov.uk	Robust quantatative data
40	Traffic Speed data	Various sites as previously required	District	Various	Transport mode	Automatic counts	Paper & Electronic	Bryan Fitzgerald	West Kent Highway Services Joynes House New Road Gravesend DA11 0AT 01474 544088 bryan.fitzgerald@kent.gov.uk	Robust quantatative data

Appendix H
Data review and analysis

appendix H

Stakeholder consultation

H.1 Originating from the list of stakeholders present at the first stakeholder group meeting the group of consultees has been expanded to cover social exclusion issues, transport for the mobility impaired and other voluntary transport services. The list is shown in **Table H1**.

T H1 Stakeholders included into data review

Name	Organisation	Stake-holder Group	Data provided
Trevor Skelton	Action with Communities in Rural Kent	Yes	No data held
N/A	Age Concern Sevenoaks & District	No	Yes
John Arnold	Age Concern Swanley	No	Yes
Malcolm Spalding, Peter Elliot	Arriva Southern Counties	Yes	Yes
Alan Tuckwell	British Horse Society	Yes	Yes
Betty Howell	Compaid Trust Chief Executive	No	Yes
Geoff Meekums	Edenbridge Rail Travellers Association	Yes	Yes
Bridget Harris	Edenbridge Voluntary Transport Agency	No	Yes
Christine Terry	Edenbridge Volunteer Centre	No	No data held
Howard Moore	Highways Agency	Yes	Yes
Francoise Montford	Independence and Access Matters	No	No data held
James Cook	Kent CC Kent Highway Services	Yes	Not contacted
Steven Noad, David Eaton	Kent CC Passenger Transport Unit	Yes	Yes
David Joyner	Kent CC Sustainable Transport Manager	Yes	Yes
Anne Marie Hannam	Kent CC West Kent Highway Services	Yes	Yes
Byran Fitzgerald	Kent CC West Kent Highway Services	Yes	Yes
Colin Finch, Nicky Biddall	Kent CC Public Rights of Way Team	Yes	Yes
Alex Dawson	SDC Assistant Environmental Health Manager	No	Yes
Tracy Cullen	SDC Concessionary Fares	No	No data held
Richard Willson	SDC Highways	Yes	Not contacted
Andy Bracey	SDC Parking	No	Yes
Andrew Steen	SDC Senior Planner	Yes	Not contacted
Maggie Williams	SDC Team Leader	Yes	Not contacted
Steve Allard	SDC Transport Manager	Yes	Yes
Matthew Hogben	SDC Transport Planner	Yes	Yes
Sophie Lord	SDC Youth Coordinator	No	Yes
Peter Benford, Dr Roger Johnston	Sevenoaks District Rail Travellers Association	Yes	Yes
Mandy Wynne, Roger Walshe	Sevenoaks Volunteer Centre	Yes	Yes
Mike Gibson	Southeastern Public Affairs	Yes	Yes
Sam Hodder, Yvonne Leslie	Southern Railways Director of Communications	Yes	Yes
David Young	SUSTRANS	Yes	Yes
Pauline Annetts	Swanley Volunteer Centre	No	Yes
John Phillips	Tandridge DC Planning Policy	Yes	Not contacted
N/A	Voluntary Action - West Kent	No	No data held
Dennis Smith	West Kent Disabled & Sensory Impaired Group	No	No data held

H.2 Consultees provided information about data held within their domain either through a telephone interview or directly through filling in a pro forma. Outline information collected for every data set encompassed the following:

- General description;
- Geographical coverage;
- Data time period;
- Level of disaggregation;
- Data collection method;
- Data format; and
- Holder of the data and contact details.

H.3 Where appropriate, missing information have been added, answers have been categorised to provide comparability and contact information has been completed.

H.4 The data bank currently encompasses 40 data sets and it was developed in electronic format for best use by SDC. In order to maximise usability and easy upgrade of the data base, the data base was transferred in to a Microsoft Excel spreadsheets which is accessible and editable from most standard office packages, including Microsoft Office itself. Alternative formats will be provided on request.

H.5 In addition, a valuation of the data has been performed in order to allow users of the data bank to make a judgement on the reliability and applicability of quantitative data within the data set. Categorisation of the data quality has been according to the following:

- For information only;
- Quantitative data used as indicator only; and
- Robust quantitative data.

H.6 While the information allows for a projection of the data available into the future through indicating data collection cycles, it is also important to notice that the data bank provides a snapshot of currently available data. Travel patterns, being closely linked to residential and employment patterns, are subject to a rapid change and quantitative data in particular must always be used and assessed against the background of its date of origin.

H.7 **Appendix G** shows the most recent status of the data base, broken down into the categories outlined above and sorted by holder of the individual data set.

Review of existing data available

H.8 The comprehensive census data set provided by Office for National Statistics is considered very robust data and travel-to-work and car ownership figures are fundamental information to determine the future of transport in Sevenoaks District. However the Census data dates from 2001 and will become less relevant over the lifetime of the Transport Strategy. The current Kent Travel Report (2005) is expected to fill this data gap for the development of the strategy.

H.9 Public Transport providers servicing the Sevenoaks District have provided robust quantitative data to allow a detailed analysis of demand and supply. Key bus service provider ARRIVA has continuous passenger figures from electronic ticket machine records. In order to complete the picture about bus travel in the district, an assessment of customers currently on free travel, i.e. free child travel, 60+ passengers and school travel, should be undertaken. Also, as there are a number of rail travellers' interest groups monitoring performance of the rail providers, no such data on the performance of bus services exists to our knowledge.

H.10 Key rail provider Southeastern has provided information on robust passenger and station footfall figures. Combined with the information expected from Sevenoaks District Rail

Travellers Association, from which are expected to allow for an assessment of rail-based services, and the commuter travel situation to and from London in particular.

H.11 Southern Railways hold performance and loading data which can be broken down to routes and individual trains. Furthermore there is station usage data and customer complaint/ customer satisfaction data.

H.12 Sevenoaks Rail Travellers Association hold an extensive data set of season ticket holders and rail users assigned to individual station.

H.13 SUSTRANS has provided a useful network map for Kent and identified a gap in the current regional cycle network in Sevenoaks District. However no quantitative data on cycling in the district is currently available, which needs further investigation under the current agenda to promote non-motorised modes.

H.14 Walking as a mode is represented in the stakeholder group through the Kent CC PROW Team who are able to supply the Countryside Access Improvement Plan which covers walking routes throughout the district. Further information is not considered necessary.

H.15 A number of agencies have been contacted to cover the transport and accessibility issues for the socially excluded and mobility impaired. These included services provided by minibus services (Age Concern Swanley), Pegasus (Swanley Volunteer Service), hospital transport services (Edenbridge Volunteer Service), Compaid Trust services (for mobility impaired), Brighter Futures Project (Sevenoaks Volunteer Service) and shopping buses for the elderly (Sevenoaks District Services). Accessibility and social exclusion represent important issues which are expected to grow in significance over the lifetime of the Transport Strategy. Therefore it is essential to back up this largely qualitative or less robust quantitative data with a survey to estimate the demand for dial-a-ride type services for those physically, financially or geographically excluded from private or other forms of public transport.

H.16 Data about licensing fees and maximum taxi fares for Hackney carriages is available. However there is no indication of the usage of taxis and private hire vehicles (‘minicabs’) from the data supplied.

H.17 School travel is well covered by the assessed data sets, including a Kent-wide school travel survey (PLASC) and a separate walking survey (Streets Ahead) of primary school children. Assisting these quantitative data sets is information about school travel plans and walking buses which are applicable as an indicator only. However a closer assessment of the existing school travel plans is expected to generate further quantitative information on the travel behaviour of school children and experience with tackling the traffic management issues and safety issues of the school run, if only indicative and not available area-wide.

H.18 The accessibility maps produced by SDC as part of the Staff Travel Plan are not directly applicable to the Transport Strategy development process. In order to quantify accessibility and identify physical gaps in the public transport network, similar maps should be commissioned for all key town centres in the district (Sevenoaks Town, Edenbridge, Swanley, Westerham, Hartley) and other key employment and leisure attractors in the area. In this context it is advisable to include attractors in the surrounding districts and use the information gathered for cross-boundary partnership working to increase mobility and accessibility.

H.19 In a similar manner, the Town Centre Health Check available for Edenbridge, despite it’s qualitative nature, is considered very useful information to establish the baseline for the Transport Strategy, and to develop actions for the most important town centres in the district. The production of Town Centre Health Checks should be extended to other key towns as outlined in the above paragraph to allow for a consistent approach in the development of town centres.

H.20 The most comprehensive set of data is available for private motorised traffic. Although the majority stems from Kent-wide traffic data, it is generally possible to develop data specific to Sevenoaks District from these data sets. A number of very recent traffic counts exist on county level, held by Kent CC and Jacobs consultancy, which need to be revisited and compared against the information available from the Kent travel report and four sets of traffic counts commissioned by SDC in 2006. To ensure consistency of traffic data across the district and identify data gaps in important locations, the available sets should be plotted onto the road network. As outlined below, recent traffic data has not been consolidated into a district-wide model.

H.21 The Highways agency holds a number of data sets for their network. The LATS survey has been updated in 2001 and a further 5 year update is currently underway, providing in-depth multimodal origin-destination data from roadside interviews, counts and household surveys. There are also regularly updated, recent ATC counts from the main part of the network, completed by traffic count held in the TADS database.

H.22 A Crash Database for Kent dating back 10 years has been produced by Jacobs which should be compared with personal injury data held by West Kent Highway Services. Stemming from Kent Police this data source is considered very sound and should be sufficient to determine traffic safety related measures. Speed camera data is also available from various sites across the district, held by Kent CC, to complement this.

H.23 While there is sufficient data on the provision and location of existing off-street, parking there is limited data on on-street parking provision, as well as general demand and occupancy in Sevenoaks District. In addition, data on traffic orders issued is available.

H.24 Interrelated with traffic, there is a good and recent dataset available on the AQMAs in Sevenoaks District, with pollutant measurement and predictions. However these are restricted to the current AQMA but will expand with the introduction of further zones as discussed above.

H.25 Other issues linked to the development of a modern Transport Strategy include the demographics, regeneration, employment and housing market. These are covered by existing studies published by SDC prior to this study, including:

- Housing Market & Needs Assessment 2007;
- Sevenoaks Retail Study 2005; and
- Conservation Area appraisals.

H.26 In addition to the above, SDC has commissioned or is currently updating the following studies covering related aspect with a relevance to the strategy development:

- Housing Land Availability Assessment;
- Sevenoaks Employment Study (March 2006);
- Sevenoaks Retail Study; and
- Open Spaces Study.

H.27 Further demographics data to support the census should be supplied by the responsible departments within SDC.

Review of current land-use and transport models

H.28 Land use and transport models can be classified into a number of groups:

- Integrated land use and transport spatial predictive models;
- Dynamic models that model specific time periods;
- Strategic models (regional in context);
- Local area models (generally SATURN based);

- Micro simulation models (for town centres and large junctions); and
- TRANSYT models (which are junction specific).

H.29 There are a number of models in existence that apply to the County of Kent that operate at a strategic level. These include the NAOMI model and the LASER model. These are operated by the Highways Agency. These models cover a wide area with a zoning system that would not be able to test schemes at a specific level in Sevenoaks District. They would however, be able to test the potential impacts of any large infrastructure scheme that SDC would wish to promote.

H.30 The LASER model comprises of a transport and a land use model that can be separated out with the transport model being able to test assignment and mode choice. Goods vehicles LGV and OGV movements can also be tested using the freight trip matrices that are inexistence. The validation year for NAOMI is 1997 which is considered old in modelling terms. The mode choice element of the model uses London Area Transport Survey data that is updated every decade, 2001 being that latest update. This data can also be considered to be ageing.

H.31 KCC did operate a county wide model at one stage some years ago but due to prohibitive costs this model has not been maintained and smaller local area models and micro simulation models have been developed.

H.32 An example of a local area model is the Sittingbourne model. This is an assignment model – SATURN based link flow model that has been developed to test the implications of major infrastructure proposals such as the proposed Sittingbourne Southern Relief Road and residential and commercial development proposals. In addition to this model a local town centre microsimulation model – VISSIM model has been developed to test site specific proposals in the town centre. This type of model could be developed for Sevenoaks District should large proposals be brought forward that could impact on the town centres in the District.

H.33 In Maidstone – a growth area in the South East Plan, another model has been considered. As part of the Core Strategy consultation process, the Borough Council has considered this recurring theme of under-provision of social, environmental and transport infrastructure facilities and schemes and is making consideration of these essential to the process of infrastructure provision at the same time as housing provision. The planned urban extensions would incorporate a school, community facilities and the South East Maidstone Strategic Link (SEMSL) road (formerly known as the Leeds-Langley bypass), along with public transport measures for the entirety of Maidstone. This route should be identified in the RSS as a proposal. The Highways Agency has commissioned a transport model to assess the likely impacts of the level of development proposed in the Core Strategy, with specific concern for the strategic route of the M20. It should be noted that as Sevenoaks District is not in the growth area nor would anticipate such levels of development so it is unlikely that the Highways Agency would commission the development of such a model for the district.

H.34 The closest model in proximity to Sevenoaks District is one for Kent Thameside. However, it would not be feasible to use this model for detailed analysis of proposals in Sevenoaks District as it would only be included in the buffer zones and these would not contain the level of necessary detail to enable testing to take place.

H.35 The criteria for the selection of a model centres on the type of proposal that requires assessment. For example, a large town centre scheme would require a detailed micro simulation model, whereas a local scheme that involved significant levels of residential/mixed use provision would require an assignment model such as SATURN or if at regional level the use of a strategic model as EMME2.

Appendix I

Literature review of relevant research

Literature review of relevant research

I.1 The literature on transport and travel behaviour is vast. This review is therefore selective, yet it illustrates the fundamental shift in thinking about transport provision over the last two decades.

I.2 Eleven key reports have been reviewed, covering the period from 1989 up to the present day. All of these have significantly influenced transport policy or have drawn together evidence from research and case studies. Most have been published by the government or its agencies and are of particular relevance to Sevenoaks District and its environs. The documents are listed in **Table I1**. (Although there have been organisational changes affecting the Department for Transport, all documents from this department, as well as its predecessor bodies, are referred as being published by the DfT.)

T I1 Documents covered in literature review

Title	Author	Publication date
Roads to Prosperity	Department for Transport	Department for Transport, 1989
Trunk Roads and the Generation of Traffic	Standing Advisory Committee on Trunk Road Assessment (SACTRA)	Department for Transport, 1994
Solving Congestion - when we must not build roads, increase spending, lose votes, damage the economy or harm the environment, and will never find equilibrium	Phil Goodwin	Inaugural Lecture University College London, October 1997
Traffic Impact of Highway Capacity Reductions: Assessment of the Evidence	Cairns, Hass-Klau and Goodwin	Landor Publishing, March 1998
Rural transport: an overview of key issues	Commission for Integrated Transport (CfIT)	Department for Transport, 2001
The Demand for Public Transport	Transport Research Laboratory (TRL)	TRL, 2003
The bus industry - encouraging local delivery	Commission for Integrated Transport (CfIT)	Department for Transport, 2004
Smarter Choices - Changing The Way We Travel	Cairns, Sloman, Newson, Anable, Kirkbride and Goodwin	Department for Transport, 2004
Transport Investment, Transport Intensity and Economic Growth: interim report	Standing Advisory Committee on Trunk Road Assessment (SACTRA)	Department for Transport, 2006
Beyond Transport Infrastructure – lessons for the future from recent road projects	CPRE and the Countryside Agency,	Natural England, July 2006
World review of road pricing	Commission for Integrated Transport (CfIT)	Department for Transport, 2006
Planning and the Strategic Road Network	Department for Transport	Department for Transport Circular 2/2007

'Predict and provide'

I.3 From the late 1950s onwards the transport planning orthodoxy was often characterised by what has been called 'predict and provide'. The axiom was: first forecast how much traffic there will be, and then build enough road space to accommodate it. This resulted in a rapid expansion of road capacity, including the construction of the national network of motorways. It also resulted in behavioural change that has led to other adverse consequences, like the increasing length of car journeys for commuting leading to worse traffic congestion, a poorer air quality and road traffic accidents.

I.4 The 1989 programme of road building, *'Roads to Prosperity'*, based on the 1989 national road traffic forecasts, was the last time when Government transport policy tried, even partially, to devise a roads programme intended to 'meet the demand' for road transport. The flaw was that the programme would not keep pace with projected traffic growth.

I.5 If road capacity is expanded at a rate less than traffic growth the ratio of vehicles per mile of road can only increase, and therefore congestion is likely to get worse. Supply of road space will not - because it cannot - be increased to match all possible demand

everywhere. Therefore many analysts believe that demand will have to be reduced to match supply. According to Phil Goodwin (*Solving Congestion*) in practice, 'predict-and-provide' actually meant, inevitably, 'predict-and-under-provide'. A strategy with road building at its heart would not deliver improvements in travel conditions - this was called "the new realism" by a major study in 1990 funded by the Rees Jeffries Road Fund.

New road capacity and traffic generation

I.6 In 1994 the government's Standing Advisory Committee on Trunk Road Assessment (SACTRA) report, *Trunk Roads and the Generation of Traffic*, concluded that road construction in conditions of congestion normally results in an increase in the total volume of traffic – i.e. induced traffic. Hence only a short period of relief from congestion is to be expected from the construction of additional roadspace. This opened the way to recognising that the volume of traffic is – at least in part - the result of policies implemented by central and local government, including land-use planning, and is therefore subject to some degree of control. Prior to this report the effects of induced traffic were often omitted from technical appraisals on the expectation that increases in road capacity would not significantly reduce the net balance of costs and benefits.

I.7 During the 1990s 'demand management' – limiting the use of road space at certain times and places - became part of the transport policy of every political party. Transport policy in principle now is nearly everywhere developing certain common themes: the growth of traffic will have to be slowed down, and in some locations the actual traffic level will have to be reduced, or even traffic will need to be removed.

I.8 In part that implies reversing the long-term decline in public transport. This might require an overall market for public transport expanding at around 3% to 5% a year, sustained for thirty years, and in some locations the logic of policy suggests growth of 25% in two years, 100% in five - achieved by changing relative prices, or the re-allocation of road space, or both, and investing in new systems where the old ones cannot be sufficiently improved. In all cases a strong contractual commitment between public agencies and commercial operators would be needed - favourable treatment for operators, but only in exchange for better services (*'Solving Congestion'*, Goodwin 1997).

Road capacity reduction

I.9 In many places town centre road capacity is now being reduced or closed, and the space returned to more productive use. The argument is that is if additions to road capacity induce additional traffic, at least in certain circumstances, then, by reducing opportunities for car use, reductions in capacity will help reduce traffic levels. As *Traffic Impact of Highway Capacity Reductions: Assessment of the Evidence* reported in 1998, it is now generally accepted that in most locations road capacity will not be increased sufficiently to provide for unrestrained growth in car use. Re-allocation of road capacity, either to favoured classes of vehicles or to non-vehicle use, is a major policy interest. Measures such as bus priority schemes, cycle lanes, wider footpaths etc are now considered appropriate, but their feasibility is sometimes calculated on the assumption that all traffic displaced from one street will simply divert to another.

I.10 *Traffic Impact of Highway Capacity Reductions: Assessment of the Evidence* assessed the empirical evidence from different types of schemes that reduced road capacity in over 100 places. The average reduction in traffic levels on roads where capacity was reduced was found to be 41%. In over half the cases overall traffic reductions were also reported. In other words traffic does not always shift to other routes, much appears to vanish as a result of behavioural change.

Rural transport

I.11 In *Rural Transport: An Overview of Key Issues*, the government's Commission for Integrated Transport (CfIT) cites research by the Countryside Agency (2000) that found that transport is the single most important concern of people living in rural areas. A number of other studies have identified transport as a major barrier to social inclusion in

rural communities. Recognising these trends, Government policy aims to reduce dependence on the car by supporting local provision of shops and services, and improving the effectiveness of public transport by increasing subsidy levels, whilst encouraging innovation and flexibility. LTP2 contains a requirement that local authorities prepare an accessibility strategy that sets out the need to promote easier access to key activities by those without access to a car.

I.12 Rural areas are often presented as a single homogenous entity, but in reality, rural transport is quite diverse. According to CfIT:

- Rural households rely more on the car, own more cars, make more journeys over longer distances and spend more per week on motoring than those from more densely populated localities.
- Greater reliance on the car in rural areas is likely to be partly a function of people living further away from basic shops and services and having less access to public transport.
- More efficient travelling means that rural travel costs are not that different to those in urban areas.

I.13 Nevertheless car dependency in rural areas is high:

- Reliance on the car in rural areas has increased dramatically in recent years across the UK, whilst use of public transport, walking and cycling has been decreasing in rural areas.
- However, car ownership has been growing more slowly in rural areas than nationally.
- Increasing reliance in rural areas is inter-related with a slow decline in access to rural shops, services and public transport provision (until the recent revival of rural buses in some areas).
- Reliance on the car is greater in isolated areas and among high-income households.
- The car is a more important source of mobility for non-car owners in rural areas than local bus services.
- It has been cautiously estimated that around a quarter of rural car journeys are entirely dependent on the car.
- Despite a significant increase in rural car use, the proportion of journeys without an alternative to the car is increasing relatively slowly.

I.14 According to CfIT the cost of rural motoring is significant:

- Low income households in the least densely populated non-metropolitan areas spend over 30% more a week on motoring than those in more densely populated areas.
- Studies suggest that the impact of increases in fuel duty is less significant than is often supposed.
- The majority of rural households cope with fluctuations in the price of fuel. Nevertheless, a minority of low-income rural households may be vulnerable to rising fuel prices.

I.15 Alternatives to the car for rural dwellers are limited, however:

- Up until 1997, rural bus services were in steady decline. Since 1998, the Government has sought to improve rural transport through the Rural Bus Subsidy Grant scheme, the Rural Bus Challenge Scheme, the Rural Transport Partnership Scheme and the Parish Transport Fund.

- The Government has set a target for the proportion of the rural population living within about 10 minutes walk of an hourly or better bus service to increase from 37% to 50% by 2010.
- Variations in rural transport services can be partly explained by variation in the density and distribution of the rural population, while the varying commitment of local authorities is also significant.
- Growth on train operators serving rural lines is currently around 6% per annum.
- Walking is much more important in terms of rural journey making than public transport.
- Only 1.4% of rural journeys are made by bicycle - this proportion is in decline.
- Support to safeguard local shop and service provision may help halt further decline in walking and cycling, as will measures designed to improve road safety and reduce traffic impacts.

I.16 Rural areas vary in their character and in the transport problems they confront cannot be overemphasised.

I.17 In a more recent study, *Beyond Transport Infrastructure – lessons for the future from recent road projects* (CPRE, Countryside Agency, July 2006), The Campaign to Protect Rural England (CPRE) and the Countryside Agency jointly funded research into the post-opening evaluation of road schemes.

I.18 The research considered three case studies, the Polegate Bypass (East Sussex), Newbury Bypass (Berkshire) and the M65 Blackburn Southern Bypass (Lancashire). The study compared the information in the appraisal of each scheme with the actual impacts that occurred following scheme opening, focusing on the roads' impacts on landscape, traffic flow and development. In addition, the research examined ten of the twelve existing 'one year after' studies undertaken by the Highways Agency on other trunk road schemes.

I.19 The report concluded that road evaluation and policy are failing to learn from the experience of past schemes, and that road building has impacts on landscape, traffic flow and development that are not accounted for when schemes are planned and appraised.

I.20 Traffic flows in all three case studies were near or higher on opening than those predicted for the roads in 2010. Any re-distributional effects of traffic caused by the construction of bypasses were undermined by overall increases in traffic. The research concluded that damage to landscapes can be 'severe' and lasting, while new roads can help generate development pressures which are often not anticipated in spatial plans.

Land-use and public transport

I.21 In *The Demand for Public Transport* (TRL, 2003) the interaction of land-use and public transport use was considered. This review of evidence showed that the effect of land-use on travel is particularly important but varies by trip purpose. It will depend on the extent to which the start/end time, destination, mode and route can be changed, whether the journey is essential or non-essential and the degree to which it can be linked to other trips. Evidence suggests that land-use particularly influences commuting and shopping trips, notably the use of local shops. For non-work trips land-use influences the distances travelled. Various land-use features influence travel behaviour: higher density developments; settlement size; population location; employment provision; and urban form.

Higher density developments

I.22 Public transport use, walking and cycling increase with higher density developments – car use declines. The average length of journeys tends to decrease with increasing density but this relationship seems to be weakening.

I.23 Higher population densities widen the range of opportunities for the development of local activities without the need for car-use since they reduce the distances between housing and employment opportunities as well as access to public transport services. However a greater number of journeys resulting from higher population densities can create more congestion which can slow bus movements, thereby discouraging public transport use. Furthermore in more highly densely populated areas parking is often limited, thereby limiting travel options, but walking is more efficient.

Settlement size

I.24 Settlement size can also influence travel behaviour. It determines the choice of services that can be accessed and the distances required. Public transport use tends to increase with increasing settlement size but average distances travelled tend to decrease. Commuting by bus increases with increasing settlement size.

Population location

I.25 Combining different activities – housing, employment, shopping and other facilities – provides residents with the opportunities to work and carry out other activities locally. Residential developments at transport nodes and close to urban centres increase the number of public transport trips compared with other developments. Car use also appears to decline with mixed-use developments, but bus ridership does not increase. Provision of everyday facilities such as food stores, a newsagent, open space, a post office, primary school, public house, supermarket and secondary school is key to reducing trip lengths according to the TRL. Provision of specialist and less frequently visited facilities, e.g. dentists and churches, has only a limited impact on travel. Local provision, however, does not necessarily encourage walking journeys or affect public transport, possibly as a result of poor route coverage to local facilities.

Employment provision

I.26 The degree of centralisation of employment also influences travel behaviour – greater centralisation encourages public transport use and reduces car use; peripheral locations tend to be much more car dependent.

Urban form

I.27 Urban form will also influence behaviour. Compact urban form decreases the distances required to reach services and facilities thus increasing the possibilities for non-motorised transport, depending on the size of the settlement. Small compact settlements may encourage walking at the expense of public transport due to the distances involved; whilst in larger compact cities congestion and overcrowding may adversely affect public transport ridership.

I.28 An alternative urban form is the ‘beads on a string’ development pattern involving high residential densities around bus stops and local amenities sited along routes at the centre of the beads. Apparently this is an efficient means of increasing bus use and for generating economic bus operations.

I.29 Developments within existing city limits produce the highest levels of commuting by public transport – research suggests that this is the same for low density developments built as an extension to the urban area as for medium-density developments rural developments.

I.30 In summary the key message is that land-use planning decisions and settlement policy can have a significant influence of influencing travel behaviour and encouraging more sustainable transport use.

Bus transport

I.31 In *The bus industry - encouraging local delivery*, CfIT reported that for the majority of regions in England outside London, bus patronage had shown a steady decline. The White Paper which preceded the 1985 Act that led to bus deregulation foresaw a situation where through the benefits of competition, costs and fares would fall, patronage would increase, more businesses would enter the bus market, innovation within the industry would be encouraged, and a greater number of services would be offered. It was also felt that competition would lead to improved marketing and passenger information. However, trends within the bus industry since deregulation have shown mixed results. While the decline since deregulation is a continuation of earlier trends, encouragingly the average rate of patronage decline has slowed in more recent years. For the last five years, the decline has been less than 1%. However, this decline is not uniform across England, London and a few notable exceptions have experienced considerable patronage growth while many areas have not.

I.32 Recent increases in Government funding and new powers under the Transport Act 2000 have made a difference - the age of the fleet has fallen and buses are more accessible, information provision is improving and bus priority schemes are delivering better reliability and punctuality. But the industry is facing cost pressures and operating conditions will worsen as congestion grows without continuing positive action.

I.33 The bus is vitally important for both the accessibility and social inclusion policy agenda. It remains by far the most dominant form of public transport across Great Britain. In 2002/03 4.4 billion passenger journeys were made by bus. This compares to 2 billion journeys recorded on all rail modes in 2002/03 (national rail network patronage totalled 976 million-passenger journeys). The local bus service currently accounts for 45% of the total distance travelled by passenger transport services.

I.34 CfIT believes that the bus industry can deliver far more for the travelling public in a shorter period of time for less money than any other public transit alternative. However, the continuing decline in patronage outside London will not be reversed unless the best practice that has emerged in several areas is rolled out across the whole country.

I.35 The London system has been viewed as a possible alternative to the deregulated modal. However, two key factors need to be considered. First, the London bus system requires significant public subsidy (with annual costs having risen from zero to £600m by 2006). Second, London is also unique in that it has a strong public transport 'culture', coupled with population growth and high population density, as well as bus priority and demand restraint measures (including the congestion charging scheme).

I.36 The Belfast example is also worth considering - in Northern Ireland bus services are operated in a regulated environment and public transport is still state owned. However, in Belfast, unlike London, there has been a lack of investment in bus priority measures and demand restraint, a large increase in parking spaces - 5 fold increase in the last 20 years - and growth in car ownership. As a result, passenger journeys declined by 9% between 1999 and 2003. To exemplify the London experience as a template for other UK towns and cities may, therefore, be over-simplistic.

I.37 CfIT believes that within the existing legislative framework patronage growth can be achieved (as evidenced in areas such as Brighton, Edinburgh, York, Nottingham, Oxford and Cambridge). However, the effective use of the measures currently available to transport authorities and bus operators has not been sufficiently widespread. One of the reasons given by local authorities for not introducing demand restraint is the economic impact of adjoining urban centres using parking policy as a competitive weapon.

I.38 Research quoted by CfIT has examined bus industry projections to 2010 based upon a 'base case' scenario and a 'fare base' scenario (where fares rise to maintain the real-term value of revenue from diminishing patronage). In both of these scenarios, patronage levels would continue to decline - felt most strongly when operators sought to maintain revenue levels (this would lead to a 32% loss in patronage in English shires). There would be cost implications for local authorities as tender costs would continue to rise and widespread service de-registrations could be expected. Car dependency would also increase as the bus lost mode share, with a knock-on impact on congestion.

I.39 This analysis proposed that quality, reliability, priority and marketing improvements in the 1990s resulted in 1.8% growth in demand per annum in London, and 2.2% outside London. Modelling suggested an even greater impact on patronage could be achieved from the implementation of such schemes (15.4% growth in the shire counties).

I.40 CfIT considered that properly enforced bus priority and demand restraint measures in congested areas are critical in enabling the development of high quality, frequent and reliable services that could attract motorists from their cars. The uptake and implementation of bus priority and demand restraint (particularly strong parking policies) are crucial in improving the feasibility of bus services and, in turn, increasing patronage levels by making them a viable alternative to the car.

I.41 CfIT believe that stronger incentives need to be put in place to encourage wider take-up of partnership working (including the use of Statutory Quality Partnerships, particularly where patronage loss continues to be experienced, and local authorities call for greater control of service provision). But while these are applicable to urban bus service provision, their effectiveness in rural areas is less certain.

I.42 Bus provision in rural areas (where local service provision is not possible at marginal cost due to the needs of school transport provision) should be based on a demand responsive approach according to CfIT.

Smarter Choices and soft measures

I.43 The promotion of Smarter Choices, often referred to as 'soft measures', is a central theme of the DfT's Influencing Travel Behaviour programme (*Smarter Choices - Changing The Way We Travel, DfT 2004*). The benefits identified by the DfT include:

- A reduction in car use, and easing of localised congestion;
- An increase in modal shift;
- Environmental benefits;
- Economic benefits; and
- Better health and fitness through more walking and cycling.

I.44 Local transport authorities, including Kent County Council (KCC), were required to include Smarter Choice interventions in their Local Transport Plans for 2006-2011 as part of an overall government strategy to deliver the shared priorities of:

- Tackling congestion;
- Promoting accessibility and social inclusion;
- Delivering safer roads; and
- Improved air quality.

I.45 All of these are expected to enhance the quality of life through having a positive impact on the way people travel by reducing car dependency and promoting sustainable travel. Whilst all share the common goals, Smarter Choices schemes can be grouped into a number of categories. Ranging from personalised travel planning to home shopping, they all reduce the number car trips made and congestion whilst improving people's health and the economic performance of a region.

I.46 Travel Plans generally incorporate a number of Smarter Choices schemes and are generally most effective where they are supported by infrastructure measures designed to 'lock in' the associated benefits such as bus/cycle/high occupancy vehicle lanes and reduced car parking capacity. Some fifteen types of Smarter Choices interventions were identified by the DfT. These are described in **Appendix J**.

I.47 Evidence of the impact of Smarter Choices measures is growing as more authorities and others adopt them. A selection of case studies, from both the UK and elsewhere, is provided in **Appendix K**.

I.48 A DfT funded study (Cairns, Sloman, Newson, Anable, Kirkbride and Goodwin, 2004) into the performance and effectiveness of Smarter Choices measures, although not then Government policy, stirred considerable interest in the impact of Smarter Choices measures. The study firstly reviewed the impacts of Smarter Choices measures separately. It then presented a 'high intensity' scenario to show the potential impact if there were to be a significant expansion in Smarter Choices project delivery. The authors concluded that the main outcomes of the high intensity scenario would be:

- A reduction in peak period urban traffic of about 21% (off-peak 13%);
- A reduction of peak period non-urban traffic of about 14% (off-peak 7%);
- A nationwide reduction in all traffic of about 11%.

I.49 The caveat to this is that any freed-up road space could possibly be taken up by other car users unless there are measures in place to prevent this, such as the re-allocation of road capacity and improvement to public transport service levels, parking control, traffic calming, pedestrianisation, cycle networks or congestion charging.

I.50 The report also outlined the effects of a 'low intensity' scenario, which are estimated to be a reduction in peak period urban traffic of about 5%, and a nationwide reduction in all traffic of 2%-3%.

I.51 The study estimated that the public expenditure cost of achieving reduced car use by Smarter Choices is in the region of 1.5 pence per car kilometre, or £15 for removing each 1000 vehicle kilometres of traffic. The benefit of reduced traffic congestion is estimated on average to be about 15p per car kilometre removed; it is considered to be approximately three times higher in congested urban conditions. Consequently, the authors concluded, that every £1 spent on Smarter Choices could bring about £10 of benefit in reduced congestion.

I.52 The study indicated that a travel plan can succeed in almost any location but that the choice of location is a more significant factor in the overall generation of car trips. However the one key factor that was recognised as being of specific importance was the management of car parking. The travel plans that included measures such as parking restriction, introducing charging or payments to those giving up a parking space, achieved an average reduction of over 24% in car driver commuting trips. The travel plans that did not include parking measures achieved an average reduction of 10% in car driver journeys.

Transport investment and economic growth

I.53 The relationship between transport investment and economic growth is complex. In its latest report on *'Transport Investment, Transport Intensity and Economic Growth: interim report'* (2006), SACTRA suggested that:

- In certain circumstances transport investment may have economic impacts which are additional to those measured in conventional cost benefit appraisal. These additional impacts could be either positive or negative;

- There is scope to achieve some reduction in national traffic volumes through restraint measures which will at the same time improve economic efficiency. This is likely to entail packages of price and non-price measures, focused on congested parts of the network. SACTRA does not mention the scale of traffic reduction which could be achieved without harmful effects on the economy;
- While in certain circumstances transport schemes may bring added economic benefits to an area needing regeneration, in other circumstances the opposite might occur. Better communications will enlarge markets for goods, services and workers: the area as a whole may gain or lose from this depending on the structure and competitiveness of the local economy. It follows that there is no simple, unambiguous link between transport provision and local regeneration; and
- SACTRA believes that the pervasive, often implicit, assumption that the benefit of improved accessibility will always accrue to the target area may often be misplaced; the possibility of the net impact running counter to regeneration objectives cannot be ruled out.

Road Pricing

I.54 Road pricing covers a wide range of means of paying for road use. A review of international experience undertaken by CfIT (2006) focused on area-wide pricing schemes such as those implemented in London and Singapore. CfIT concluded that locations that had implemented road pricing had done so primarily to:

- control rising congestion levels;
- deter further growth in car use; and
- to address the negative impacts of traffic and congestion on transport efficiency and the environment.

I.55 The review identified a wide range of locations worldwide that are now considering implementing local road pricing schemes - focusing on a single town, city or urban area - but only the Netherlands and the UK are looking at national schemes.

I.56 Evidence from 17 case studies indicated that the majority are at very early planning stages with very few having clear specifications of schemes. Other than locations that are extending or modifying schemes already in existence or proposing trials - there are no committed implementation plans across the sites reviewed.

I.57 The evidence also indicated that most locations are developing local schemes on a bottom-up basis, not framed by wider national policy or backed up by legislation that would enable road pricing to be implemented.

I.58 The UK has a national policy framework that is guiding the development of interoperable local road pricing schemes and has legislation that would enable road pricing schemes to be implemented – the Transport Act 2000. Importantly, the longer-term aspiration for a national scheme does not appear to be hindering the progression of local schemes. The DfT is also providing funding to enable the development of road pricing schemes in England.

I.59 However, compared with other locations in the world the authorities in England progressing with road pricing schemes have limited ability to shape the public transport elements of an integrated package of measures to complement road pricing.

I.60 It is clear that the primary focus of road pricing in the UK is to tackle congestion, while the majority of schemes worldwide explicitly seek to achieve a wider range of objectives.

Circular 2/2007 Planning and the Strategic Road Network

I.61 This Department for Transport Circular sets out how the Highways Agency will work in partnership with regional and local planning and transport authorities, public transport providers and developers to participate in all stages of the planning process to produce sound and deliverable strategies.

I.62 The circular:

- sets out how the Highways Agency will take part in the development of Regional Spatial Strategies (RSSs) and Local Development Frameworks (LDFs) from the earliest stages;
- encourages the Highways Agency and Regional Planning Bodies (RPBs) and Local Planning Authorities (LPAs) to work together to ensure effective participation in the preparation of regional and local sustainable development policy; and
- sets out how the Agency will deal with planning applications.

I.63 The policy reinforces the Agency's approach to mitigating the transport impacts of development. It's aim is to apply the following solutions iteratively:

- Impact avoidance through encouraging sustainable locations;
- Impact minimisation through realistic travel plans;
- Access management; and
- Capacity enhancements as last resort and only where compatible with suitable principles.

I.64 This approach is supported by the Department for Transport and Communities and Local Government supporting document, the Guidance on Transport Assessment. The circular will assist stakeholders in determining whether a transport assessment may be required and, if so, what the level and scope of that assessment should be.

The Agency's role in the preparation of Local Development Frameworks

I.65 Circular 2/2007 also points out that the Highways Agency is a named consultee in the process for producing LDFs, including Local Development Documents (LDDs). LPAs should ensure that the Agency is involved from the pre-production stage of the LDDs and throughout the preparation process. Involving the Agency in the plan preparation process is intended to help to ensure the development of sustainable and coherent proposals and so they are capable of being supported by the strategic road network.

I.66 The Agency will offer advice and technical support to guide the scale and location of proposals in relation to the strategic road network. The Agency will also provide guidance on the scale and nature of improvements to the strategic road network and demand management measures (where such improvements and measures are required) that need to be considered in order to facilitate development.

I.67 Where the Agency considers that a proposal in an LDD may not be deliverable, for example because it would require improvements to the strategic network that are not practicable or which may be unaffordable, it will provide a full and reasoned case to the LPA.

I.68 The Circular argues that the Agency cannot be expected to cater for unconstrained traffic generated by new development proposals. Such growth would be unsustainable and would restrict opportunities for future development where available capacity is limited. Development should be promoted at sustainable locations, and the Agency will expect to see demand management measures incorporated in development proposals.

Appendix J
Smarter Choices

appendix J

Types of Smarter Choices

Workplace Travel Plan

J.1 A workplace travel plan aims to reduce car trips to an employment site by staff, visitors, customers and suppliers, and increase levels of public transport use, walking, cycling or car sharing. They will comprise a range of different measures typically including secure cycle parking, office showers for cyclists, the ability to tele-work from home, subsidised bus travel, bus travel information, cycle pools for users and car sharing facilities.

J.2 Travel plans can be voluntarily adopted or secured by a local authority through a Section 106 agreement, or the use of a planning condition. Travel plans ought to specify a desired modal split target or a range of measures to be implemented within a specific timescale. Monitoring and evaluating are vital to ensure their success and long term continuation.

School Travel Plan

J.3 A school travel plan encourages school children and staff to travel to school by alternative methods to a car. It can feature a number of schemes including walking buses (particularly for primary schools), safer walking routes, cycling trains, cyclist and pedestrian training, promotional campaigns and classroom learning activities. School travel plans generally is now an umbrella term for all school travel initiatives, including safer routes to school and cycle parking. The school needs to be actively involved in the process with support from the local authority to help ensure its success.

Area Travel Plan

J.4 An area (or cluster) travel plan covers a number of organisations on a particular site, such as a science park. The travel plan requires input and support form all the organisations it represents and the local authority to help ensure its success and can include particular elements such as car sharing, cycling and walking initiatives as well as better information on bus services. An area travel plan can provide the evidence base to either lever in or plan investment in cycling and walking schemes.

Residential Travel Plans

J.5 Residential travel plans are best adopted during the design and planning phase of a new housing development. They can be secured and funded by S106 agreements and should cover aspects such as public transport access and infrastructure. They are most likely to succeed if implemented at the earliest possible stage of planning and involve input from the developers, local authority and public transport operators. Schemes could include welcome packs for residents with free travel information and free introductory period passes, walking and cycling routes, or free cycles. Car clubs enable residents to use cars when needed occasionally without having to incur all the costs of ownership.

Event and Tourism Travel Plans

J.6 Event and tourism travel plans can be adopted by one off event organisers and by other tourist destinations. By predicting and managing the demand for travel at certain times of the year alternative measures of transport to the private car can be promoted or put in place. Suitable forward planning is required but can bring about huge benefits to the accessibility and car parking requirements of a destination.

J.7 Car-sharing systems may well feature in these travel plans but usually the focus in on improving, if only temporarily, public transport, usually buses.

Personalised Travel Planning

J.8 Personalised travel planning is an approach that provides travel options advice and incentives to a targeted group of people on an individual basis. These schemes can be target neighbourhoods or specific groups, such as school children, employees or single

parents. Information is based on the individuals' travel patterns and incentives could be provided that the individual may find useful. Participants are usually provided with information on public transport services as well as walking and cycling routes that they could use for certain, often regular journeys, in order that changing their behaviour is made easier.

Public Transport Information and Marketing

J.9 Promotion and marketing of specific routes, whole networks or improvements to bus services is crucial to achieving an increase in patronage. Smarter Choices projects links improvements in service and route information with the promotion of services. The use of branding and supplying good information is vital. Marketing can be targeted to areas or even individuals. Information can be improved by the introduction of real-time information at bus stops, for example.

Travel Awareness Campaigns

J.10 Travel awareness campaigns raise the public's awareness of the problems caused by car use and encourages the use of alternative modes of transport. Campaigns use a number of media, including exhibitions, road shows, radio adverts, bus backs adverts, poster, leaflets and press releases. On-going communication takes place through the media, targeting broad audience or specific audiences with focused messages, for example promoting the health incentives of cycling and walking and the benefits to the environment.

Car Sharing

J.11 Car sharing schemes are usually internet based and provide matches for people wanting to share the same or similar journeys. The sharers agree to share the costs of their journeys or alternate the driving. Most schemes enable people to set criteria for potential sharer matches, such as gender or non-smoker. Car sharing schemes can be supported by priority parking or discounted parking charges through a workplace travel plan, or use of High Occupancy Vehicle (HOV) lanes.

Car Clubs

J.12 A car club gives people access to a car without them having to own one. A neighbourhood or organisation will have access to a number of cars and members of the car club will pay a fee to be a member. Then members can take the car when they need them by booking in advance. This can reduce the number of cars owned in an area and therefore reduce unnecessary congestion. Users also make financial savings by not having the associated overheads of running a private motor vehicle.

Tele-working

J.13 Tele-working can be incorporated into workplace travel plans and allows individuals to work from home. Recent improvements in ICT allows individuals to work from home whilst remain in constant contact with the office. Support is essential from the employer and they may choose to provide the necessary hardware. If every individual tele-worked one day a week then congestion could be cut by as much as 20%.

Teleconferencing

J.14 Teleconferencing involves the use of ICT to communicate 'in person' without the need to travel. Support is required from employers but the financial savings often outweigh the associated costs. It can be linked with tele-working so that participants can be involved from home.

Home Shopping

J.15 Internet and home catalogue shopping have the potential to reduce shopping car trips. Efficient distribution systems are vital to ensure that there is a net reduction in vehicle

trips and distance travelled. Home shopping can be particularly useful for rural households without access to a car.

Cycling and Walking

J.16 They can be linked to travel plans or promoted as separate schemes such as segregated cycle lanes, advanced stop lines for cyclists at junctions, safer walking routes, cycle pools for users or cyclist training. Wider and continuous footways benefit pedestrians while the removal of guardrailing and better maintained footways or pedestrian crossings will also help.

Hard (infrastructural) Measures to 'lock in' the benefits of Smarter Choices schemes

J.17 The *'Smarter Choices - Changing the Way we Travel'* report highlights the scale of single occupancy vehicle trip savings the adoption of smart measures might bring about. Local Authorities are encouraged to "lock in" these benefits through the parallel adoption of demand management measures (infrastructure or "hard" measures), such as the deployment of traffic calming, segregated cycle lanes, wider footways or bus priority infrastructure. Successful dovetailing of both "soft" and "hard" initiatives will ensure the full benefits of the Smarter Choice philosophy is realised.

Appendix K

Evidence of the benefits of Smarter Choice

appendix K

Evidence of the benefits of Smarter Choices

'Making Travel Plans Work – Case Study Summaries' (DfT, 2002)

K.1 An evaluation of twenty workplace travel plans covering a range of employers from across the UK including Boots (headquarters, Nottingham), Bluewater Shopping & Leisure Centre (Kent), Oxford Radcliffe Hospitals NHS Trust (JR site) and the University of Bristol was undertaken by the DfT. Over 69,000 employees at 20 organisations were covered.

K.2 The study found that on average the annual running cost of a travel plan was £47 per employee, although this could be significantly influenced by the extent of funding for other measures such as bus services. It was also reported that initial setting up costs, such as installing cycle parking, can also be high but are only incurred once.

K.3 Impacts resulting from the travel plans varied considerably, with the largest modal shift achieved by Orange where the percentage of staff driving to work was reduced from 79% to 27%.

Workplace Travel Plans: Buckinghamshire County Council Travel Plan (*'Making Travel Plans Work – Case Study Summaries'*, DfT, 2002)

K.4 Buckinghamshire County Council began its travel planning work in 1998, developing a travel plan for the council and appointing a travel plan coordinator. Measures included:

- County-wide car-sharing scheme;
- Discounts for bus and rail travel;
- Extensive publicity and promotion;
- Improved cycle parking; and
- Car park management, including parking charges.

K.5 The target audience was Council employees, who number approximately 2,200, of whom 1,423 are based in the two County Hall buildings, with a further 780 in Area Offices. The initial set-up cost of the travel plan was £33,000. The annual running costs are estimated at £125,000, approximately £57 per employee.

K.6 The travel plan has reduced single-occupancy car commuting from 71.3% to 49.4% over five years.

School Travel Parents Guide to Child Cycling (DfT, 2004)

K.7 This project aimed to increase levels of cycling to school by targeting parents, the key decision-makers, rather than children. The communication project was developed because it was recognised that perceptions of road danger and parents' fears about their child being involved in an accident was the single most important barrier to increasing levels of cycling to school. Whilst safe routes are essential to increasing cycling, they are not sufficient on their own. The project involved the production of a full colour factual guide to cycling to enable parents make informed decisions for their children.

K.8 Parents of years five and six students at schools across the city of York were targetted.

K.9 York has a strong history of cycling, with a well developed cycle network, cyclist training, cycling marketing campaigns and safe routes to schools programmes. The authority also has a Public Service Agreement (PSA) target to increase the number of children that cycle to school in year groups 6-9, from 5.8% in 1999 to 10.3% by December 2005. The project cost approximately £50,000 over three years.

K.10 The guide has been well received and replicated by other local authorities in Britain. York reported that it is difficult to isolate the impact of any single initiative on levels of cycling as they run concurrently a number of campaigns, as well as infrastructure improvements.

Nonetheless, for schools in York, calculations suggest that, on average, primaries with school travel plans had car use that was 15% lower than schools without travel plans.

K.11 However the impact of school travel plans tends to subside to some extent once the initiative has been completed. The guide to cycling, by taking an honest approach to help parents make an informed choice, is trusted and therefore is thought to have had a lasting impact on levels of cycling.

Area Travel Plan: Whiteley Area Travel Plan (Highways Agency, 2005-06)

K.12 An Area Travel Plan (ATP) was developed for Whiteley – an area of residential, employment and retail land-uses – between Southampton and Portsmouth, in Hampshire. It was developed in partnership between the Highways Agency's (HA) Influencing Travel Behaviour team, Hampshire County Council (HCC), and the Whiteley Business Forum (WBF) and its proactive Transport Sub Group (TSG).

K.13 The development of the ATP was informed by a detailed baseline analysis including site audits, travel surveys and traffic counts. This analysis revealed that the vast majority of trips into the area during peak hours are generated by the Solent Business Park, where around 4,000 people are currently employed.

K.14 An Action Plan was developed with detailed measures to address this trip generation with the emphasis on modal shift, away from the Single Occupancy Vehicle. An ATP Coordinator was then appointed for the summer 2006 period to undertake the initial implementation of these measures. These included:

- A business park-wide car-share scheme;
- Public transport improvement negotiations with operators, the TSG and HCC;
- A 'Healthy Lifestyles' initiative to encourage walking, jogging and cycling; and
- A promotional campaign.

K.15 The short-term measures of the ATP are targeted at encouraging and enabling the use of sustainable travel modes by the employees of the Solent Business Park. The future development of the ATP will look to address the travel of residents and shoppers. The HA has developed a programme of Area Travel Plan sites across the UK to 2010, with the aim of reducing congestion and taking pressure off England's strategic road network.

K.16 The development and initial implementation of the ATP has cost around £50,000, the majority of which has been funded by the HA, but with funding also coming from HCC. The next stage of the project – the appointment of a permanent ATP Coordinator – will be funded by the leading business of the TSG and HCC.

K.17 Over 100 people have registered on the car-share database. Monitoring of the impact of the ATP on congestion at Junction 9 will be carried out through traffic surveys in March 2007. The ATP is supported by a detailed Monitoring Strategy. The impacts of the measures introduced through the ATP will continue to be monitored annually to assess its success and to increase its impact and efficiency.

Residential travel plans: Plough Lane, Wimbledon (2006)

K.18 This was a Residential Travel Plan (RTP) for a mixed-use development that will increase density at Plough Lane in Wimbledon, south London. The RTP is aimed at residents of the proposed development and includes:

- Improved bus provision
- Car Club
- Infrastructure and incentives to encourage cycling
- Travel awareness information

K.19 A residential travel plan aims to reduce trips from an origin. This RTP has not yet been fully implemented its outcomes are yet to be seen. However, as part of the planning application for the development the developer had to sign a Confidence in Delivery Agreement to demonstrate its confidence in the measures introduced to offset the impact of the development on the surrounding road network. The developer is contracted to monitor the traffic produced by the development to 2011 and if the level is not at or below the level predicted, it is obliged to use more money to fund further measures to encourage non-car travel.

Public Transport Information and Marketing: Perth, Scotland, direct marketing campaign (DfT, 2004)

K.20 This advertising and marketing campaign included launch publicity, door-to-door interviews with potential customers, the offer of free trips, and promotions such as children's competitions and pensioners' lunches. This was followed by a telephone-based direct marketing campaign targeted at nonusers. The campaign was also accompanied by quality service improvements, which included doubling the service frequency, introducing low floor buses, simplifying fares and the council introducing bus priority measures and new bus shelters.

K.21 The marketing campaign aimed at increasing bus use on a poor performing, low frequency bus route in Perth, Scotland with a profile of aged owner-occupiers with high car dependency. The main bus operator, Stagecoach, and the local authority worked in close partnership to provide a range of quality improvements that have resulted in a step change in public transport provision in Perth. These have included new vehicles, priority measures and state of art bus shelter designs.

K.22 Over the first two years passenger growth was 56%, and reported to be on course to be 63% over three years. There was evidence of modal shift from car to bus. The telephone marketing campaign resulted in conversion to public transport of 7-8% of those non-users contacted. This is a high figure as the Direct Marketing Association response rate survey 2003 quotes average response rates for comparable telephone campaigns of 4.9%. The 63% patronage increase is roughly double the average increase for a conventional quality bus partnership, suggesting that the difference was largely due to the direct marketing of this scheme.

K.23 The passenger growth continued to increase over three years.

Public Transport Information and Marketing: Public transport marketing and information in Brighton (*'Smarter Choices Report – Volume 2'* DfT, 2004)

K.24 The City Council and Brighton and Hove Bus and Coach Company currently work together in an informal bus partnership and use a combination of hard and soft measures. The hard measures used include improving services, infrastructure and parking enforcement.

K.25 The soft elements of their approach include:

- Metro' branding, including a tube style map and colour-coded routes.
- A £1 flat fare for any bus trip was introduced in 2002. The flat fare is felt to have 'completely demystified the use of the bus'. Its introduction was heavily publicised on the sides of buses and through radio advertising. Other ticketing initiatives aimed at attracting bus users are a £2.40 one-day saver ticket and a scheme called 'Bus ID' which enables young people to travel for a 30p flat fare.
- Development of a customer service culture throughout the bus company, including a customer care training programme.
- A 'Bus Times' publication, which gives comprehensive information about bus services run by all operators. This is produced by Brighton and Hove Bus Company, but lists Stagecoach, Arriva and council funded services alongside their own.
- Two 'one-stop travel shops' selling tickets and information for all forms of public transport.
- A telephone helpline operated by council staff. It is also possible for travellers to make use of a regional telephone service (Public Transport Information 2000), which the council and the bus company are involved in.

K.26 The city, a south coastal resort, has approximately 250,000 residents and eight million visitors every year.

K.27 Brighton and Hove Buses spent a total of £22.3m on new buses between 1996 and 2003 and they boast one of the youngest bus fleets outside London. They also spend around £100,000 a year on a comprehensive customer service strategy and training programme. The bus company also spends approximately £225,000 a year on publicity and marketing. Brighton and Hove City Council's public transport team had a budget of £7.1m. Of this, £35,000 is for publicity.

K.28 The result of the approach has been an increase in bus use of 5% per year for the last decade, which is partially attributable to the marketing of these services. The increase in bus use has been consistent over the last 10 years.

Travel Awareness Campaigns: Hertfordshire's walk to school week (TAPESTRY, 2003)

K.29 TAPESTRY is a promotion campaign in schools to promote walking during a particular week that targets children. Walk to School Week involves posters in schools, stickers or badges for children and media publicity. The campaign was delivered into 147 separate schools reaching almost 60,000 schoolchildren and their parents.

K.30 Walk to School Week is run in rural and urban schools across the county. The project was built on the experience of previous travel awareness campaigns and the analysis of their results. As a result of all the analysis it was determined that the group could be best reached through the campaign for Walk to School week 2002. This campaign cost £14,800.

K.31 The TAPESTRY project undertook an assessment of Hertfordshire's Walk to School week campaign, which took place in May 2002. Evaluation was conducted at 11 schools that were targeted by the campaign and two control schools.

K.32 The schools participating in the campaign this year had also done so the previous year, whilst the control schools had never participated in Walk to School week. Analysis was conducted via a before and after survey. In total, about 1000 completed surveys were received from campaign schools, with a further 200 from control schools. Specific results were as follows:

- There was a small (1.3%) increase in the proportion of children walking to school at least once a week in the campaign schools compared with a small (1.3%) decline in the proportion at control schools.
- The proportion of parents in campaign schools strongly agreeing that "I intend for my child to walk to school for his/her next journey" rose from 48% to 54% (with growth from 64% to 66% in the proportion agreeing or strongly agreeing overall). A similar growth was seen in control schools.
- The percentage agreeing or strongly agreeing that the car doesn't cost much declined from 21% to 16% in the campaign schools after Walk to School week.

K.33 The Tapestry report claims that these results suggest Walk to School Week can have a positive effect. Moreover, they claim that some of the parallel changes that occurred at the control schools suggest that it may also be having a knock-on effect in schools that do not participate directly. It is equally likely that the small change in walking was a chance effect, or due to another factor.

Car Sharing: CamShare, Car sharing in Cambridgeshire (DfT, 2004)

K.34 In this project car sharing occurs through the Cambridgeshire Travel for Work Partnership (which is focused around workplace travel planning) a county-wide car sharing scheme was set up using Liftshare. Employers are encouraged to intensively promote the scheme to their workforce and incentivise the scheme through providing a guaranteed ride home and dedicated parking spaces.

K.35 The scheme was launched in 2002 at five pilot sites employing approximately 13,000 employees. It was developed and is managed through the Travel for Work Partnership (TfW), which is part-funded by the County Council. Four of the five businesses involved in the CamShare pilot were on the Steering Group that founded TfW. The scheme cost £15,000 to set up and employers pay to register and pay annually for a licence to use the scheme.

K.36 After a year of operation 350 people had registered on the scheme with 230 considered to be 'live' members. However in a three-month period in this year 161 searches were made on the site but only two e-mails were sent seeking fellow car sharers. The site organisers believe that some people may be using the system to find potential sharers and then making their own arrangements.

Car Clubs: Edinburgh Car Club (DfT, 2004)

K.37 In this project a car club provided as part of a car free housing development in the urban area. The Edinburgh City Car Club was the first major car club in the UK and was launched in March 1999. Initially it was operated by Budget Rent a Car; in October 2001, the car club was re-launched by Smart Moves. The car club was launched with financial support totalling £253,000 from the city council, Scottish Office and DETR. When the scheme was re-launched a development grant of £40,000 was provided by Edinburgh City Council.

K.38 Edinburgh has a population of almost 450,000. It is a compact city with over half of its households living in tenements or blocks of flats. These were not designed with the car in mind and parking pressure is acute in the city.

K.39 Budget Rent a Car increased the scheme to 170 members, 22 vehicles and 23 sites over a period of two years. When the scheme was re-launched considerable work was required to regain members. By August 2003 the club had 215 members and 17 cars at 15 sites around the city. By May 2004 there were 317 members and 19 cars. Figures suggest that the Edinburgh car club saved roughly 825,000 car kilometres per year in 2003. In terms of kilometres saved per member, the figures work out at approximately 3,800.

Teleworking: BT ('Smarter Choices Report – Volume 2', DfT, 2004)

K.40 BT employees are encouraged to explore the possibility of teleworking, not only to enable BT to increase efficiency and productivity, but for the benefits of work-life balance for employees. Teleworkers are provided with IT equipment and support, grants for office furniture and a dedicated phone and email help desk. Teleworking has been developed at BT as a core element of fundamental restructuring of the company's operation since the early 1990s. BT has also introduced teleconferencing.

K.41 A team of five people is assigned the programme to support BT teleworkers, and an estimate of cost would put this at approximately £100,000 per year.

K.42 Surveys of employees who regularly telework suggest that they have reduced their weekly mileage by 95 to 193 mile, have increased their productivity, and benefit from other more subtle advantages such as less stressful lifestyles resulting in lower levels of absenteeism. Teleworking is now embedded within BT policy and is attracting a steadily increasing number of employees, passing 7,500 in summer 2003.

Walking: Promoting Walking in York, Johnson and Carter (2000)

K.43 In order to promote and increase walking the City of York Council launched a travel awareness scheme in July 2001. The campaign focused on the health and environmental benefits of walking and attempted to challenge the domination of car industry advertising. The campaign focused on walking alone (rather than walking and cycling) and also aimed to 'de-market' the car through imitating the style of car advertisements. The campaign therefore used the messages from car advertising such as a sense of freedom, attractive lifestyle images and family values. The campaign was a sustained attempt to influence travel behaviour (running for approximately 8 months) rather than a one-off week or event. This approach was favoured in order to avoid campaign fatigue amongst the public and also to try and introduce a lasting change in travel behaviour rather than a short one-day response.

K.44 The campaign involved using:

- Advertising on the back of buses
- Backs of parking tickets
- Postcards to major employers, bars and cafes
- A launch to the public and media.

K.45 York is an historic city, with 180,000 residents. York enjoys almost full employment and attracts four million visitors every year, both of which contribute to the city's high levels of congestion. The city has invested in a network of cycle routes, a pedestrianised city centre and other walking routes and four (at the time of this campaign) Park & Ride services. The campaign cost in the region of £88,000 for graphic design, print and purchase of media space. Council officer time is not included in this figure.

K.46 The results of the campaign were assessed when it ended in February 2002 via 500 on-street surveys in eight locations around the city. The behavioural impact evaluation showed that amongst car drivers who had seen the campaign 40.6% reported an increase in their walking, compared with 29.6% who had not seen the campaign. The DfT report on Smarter Choices (Cairns 2004) estimated that this campaign had influenced between 3.3 and 12% of car drivers in the city.

Other DfT initiatives

K.47 In order to take Smarter Choices forward the DfT has set up two projects: the Centres of Excellence and the Sustainable Towns Demonstration Project.

The Centres for Excellence

K.48 The DfT's Centres for Excellence initiative is designed to highlight good practice in local transport planning and encourage local authorities to share their experiences. The authorities responsible for 16 local transport plans (LTPs) in England have been designated as Centres of Excellence (COE) on the basis of their LTPs and subsequent annual progress reports. One further COE, Cornwall, was designated separately as a COE for Rural Transport as part of a specific initiative. Kent was not selected.

K.49 The authorities responsible for these LTPs will be undertaking a range of good practice dissemination activities aimed at other local authorities across a range of local transport issues as part of their commitment to the COE initiative. Smarter Choices are expected to feature significantly in these experiences. Evidence suggests that these are having an impact.

Centre of Excellence for Integrated Transport Planning: Merseyside TravelWise

K.50 This Travel Awareness Campaign involved workplace and school travel plans, car sharing, and promoting public transport, walking and cycling. In addition to reducing car trips, a key aim is to try and improve social inclusion and accessibility, in particular for the most deprived areas. The campaign targeted all residents in the Merseyside PTA area.

K.51 The overall Smarter Choices budget for 2006/07 was £626,000. The results from the schools data has shown a 2.4% cut in car use, which has been achieved against a general trend of rising car use of around 5%.

Centre of Excellence for Integrated Transport Planning: Nottinghamshire

K.52 The *'Big Wheel'* is the branding for Nottinghamshire's transport strategy and also a long term travel awareness campaign. It involves building awareness and support for the aims of the County's LTP, promote workplace and school travel plans and increase use of car sharing, public transport, walking and cycling. The campaign includes a dedicated website, unique and eye catching branding and information guides.

K.53 An annual survey is undertaken which measures the impacts the Big Wheel is having, including recognition of the campaign and brand.

Sustainable travel demonstration towns

K.54 This 5-year DfT project aims to demonstrate the effect a sustained package of 'Smarter Choice' measures can have when coupled with infrastructure improvements. Darlington, Peterborough and Worcester were selected as 'showcase' demonstration towns. A range of interventions are being adopted both infrastructural as well as encouraging behavioural change by soft measures.

Peterborough Sustainable Transport Demonstration Town

K.55 Sustrans and Socialdata were commissioned in autumn 2004 to undertake an extensive programme of travel behaviour research in each of the towns. The aims of the research in each town were to support local decision-makers in developing their programmes and to provide a baseline against which their outcomes could be measured.

K.56 The key objectives were to provide:

- a comprehensive database of personal travel behaviour to describe the day-to-day mobility of each Town's population;
- an assessment of public attitudes towards, and perceptions of, local transport issues; and
- a detailed analysis of the potentials for increasing levels of walking, cycling and use of public transport

K.57 In one of the showcase towns, Peterborough, research shows that, for example, on an average day people make 3.0 trips with 5.2 legs, performing 1.7 out-of-home activities. Per day they spend almost one hour (52 minutes) travelling per person covering an average distance of 21 kms.

K.58 The travel behaviour of most people in the town is quite simple: 40% of all people have just one journey per day with only one out-of-home activity. More than three quarters (78%) of all journeys are just for one activity. In total 86% of all trips start from home or lead back to home. Only 14% of all trips are between two out-of-home destinations. Leisure accounts for more than a quarter of all trips made by Peterborough residents (28%), shopping and travel to work one fifth each (21%). Travel to school or college accounts for 10 % of all trips. On an average day 22% of trips made by Peterborough residents is on foot (i.e. a genuine walking trip), while 5% are made by bicycle. Motorised private modes (car as driver or passenger, motorbike) account for two thirds of all trips; the majority of these trips is made by car as driver (43%). Travel by car as passenger accounts for more than one fifth of all trips (23%). Public transport is used for 6% of all trips.

K.59 The research also reveals the importance of short, local trips:

- Around 20% by Peterborough residents is no further than one km and two fifths of all trips are no longer than three kms.
- Almost two thirds of trips (65%) are in the range of five kms and another 20% are between 5.1 and 10.0 kms. Only one seventh of all trips is longer than ten kms.
- On more than four fifths (83%) of all their trips Peterborough residents remain within the Peterborough urban area, (i.e. the trips begin and end in the city). The average distance of these trips is about 4 kms.
- Despite this, the city centre is the destination or starting point for only 8% of all trips made by Peterborough residents. The share of public transport for trips to or from the city centre is much higher than for all trips (22% compared to 6%). This public transport share is equally high for shopping trips to or from the city centre (22%).

K.60 The analysis reveals that in principle significant shifts in travel behaviour are possible, for example:

- Three out of five of all trips could be undertaken by sustainable travel modes; or
- Around six out of seven trips could be made by motorised private modes.

K.61 The in-depth research also showed that two fifths of all current car trips within Peterborough are, in principle, replaceable by sustainable travel modes as follows:

- a sixth by public transport;
- a quarter by cycling; and
- 12 % by walking.

K.62 A lack of information and poor perceptions of service quality were among the most important barriers against greater public transport use. Furthermore there were no

constraints or even subjective barriers preventing a significant proportion of car trips from being switched to walking or cycling. This demonstrates that Peterborough's 'Travelchoice' programme, by focusing on soft measures (i.e. information, motivation etc), has the potential to unlock significant shifts towards use of sustainable travel modes.

K.63 Similar results have been found in the other two demonstration towns: Darlington and Worcester.

Overseas Experience

K.64 Much experience exists overseas of the benefits of Smarter Choices and similar programmes in achieving behavioural travel change.

Individualised Travel Marketing in Perth

K.65 Individualised Travel Marketing (ITM) is an innovative approach to changing travel behaviour through direct contact with households. It encourages people to make greater use of alternatives to car travel by offering them personalised travel information, advice and incentives to try out new ways of getting around –essentially a form of personalised travel planning.

K.66 ITM has been used to promote public transport, walking and cycling in projects across Europe and Australia. In particular, one large scale application covering 35,000 people in Perth (Western Australia) achieved a sustained 14% reduction in car trips and increases in walking of 35%, cycling 100% and public transport use 17%.

K.67 ITM recognises that there is a often a gap between public perception of alternative modes of transport and the reality. Due to a lack of personal experience of, or information on the options available, travelling on foot, by bike or by public transport can seem less attractive than it is. As a result most people make trips by car which could be made just as easily by other modes.

K.68 The traditional approach to changing travel behaviour has been through various measures such as the provision of transport services and infrastructure, which can be of limited value if people are unaware of the improvements. By offering up to date and local information on transport alternatives, together with incentives and further support to try them out, ITM aims to improve people's perceptions of the services and facilities available. This enables them to make more informed travel choices, reducing their car use by switching to other transport modes when it makes sense to do so.

Personalised Travel Planning: Individualised Marketing to Households in Viernheim, Germany (TAPESTRY, 2003)

K.69 The city authority in Viernheim, Germany created an excellent cycling and walking infrastructure, improved public transport and introduced traffic calming measures. These were supported by Individualised Marketing through a phased, targeted approach. In being the first German city to introduce Individualised Marketing, Viernheim acted as a pilot for the rest of the country. Some 3800 households in the Nordweststadt, Weststadt and Breslauer Berg areas of Viernheim were targeted, involving 9120 residents.

K.70 Comparisons before and after the campaign show an increase in sustainable modes was recorded:

- Walking: 7% increase
- Bicycle: 10% increase
- Public transport: 29% increase
- Journeys by car (as a driver) were reduced by 12%.

K.71 The Viernheim pilot was described as a success, demonstrating that Individualised Marketing could have a positive impact on travel behavioural change.

Cycling: Wolford – Promoting Cycling to a Place of Employment ('Mobility Management Manual' TREATISE, 2005)

K.72 Cycling was promoted to 1,300 employees by implementing the following measures:

- Relocation of cycle parking to the office entrances (underground cycle parking);
- Relocation of car parking away from the office entrances;
- Establishment of a cycle service, maintenance and air pump station;
- Free roadworthiness check for bicycles;
- Company pool bicycles;
- Cycle excursions for employees;
- Cycle marketing;
- Information on cycling;
- Cycling promotional competitions;

K.73 From 1993 to 1996 the proportion of employees cycling to work rose from 18% to 35%. Over the same period, the proportion travelling by car decreased from 34% to 22%. The results show that over a three year period consistent improvements in modal shift have been achieved.

Cycling Odense: the National Cycle City of Denmark (Troelsen, 2004)

K.74 Odense was the official National Cycle City of Denmark from 1999 – 2002. The main aims of the project included increasing the number of journeys by bicycle in Odense by 20% by the end of 2002, compared to the years 1996-1997 and a 20% increase in the number of people who use a bicycle more than three times a week.

K.75 The project included physical improvements to cycle infrastructure, changes in regulations and promotional campaigns, with new initiatives in several areas, including:

- Access for cyclists;
- Better and safer parking for cyclists;
- Image building activities;
- Action-based activities aimed at children and adults;
- Focus on operational quality; and
- The behaviour of cyclists in traffic.

K.76 The project had a budget of DKK 20 million (about £1.82 million) and ran for four years. Fifty different projects were developed and implemented in Odense, including physical improvements, changes in regulations and campaigns.

K.77 Overall the volume of cycling traffic increased 22% in 1999-2002 compared to 1996-1997 and this had increased to 24% by the end of 2002. An average of 25,000 new cycling journeys per day occurred during the project period corresponding to 35 million new cycling journeys during the whole project period. Traffic safety also improved; personal injuries amongst cyclists due to accidents involving more than one party fell by 19% from 1996-1997 to 1999-2000 and by 20% by the end of 2002. This met the target set for this area too.

K.78 New cyclists appear to have continued cycling so the volume of cycling traffic was at the same high level in 2003 due to the integration of "soft" and "hard" measures. In addition, the public health of citizens of Odense has also improved, with men gaining five months on their average life expectancy in the period of the project. Citizens received half a day's less social security benefits than expected. The resulting savings equalled DKK 41 million in the project period 1999-2002. Cost for health insurance increased in the same period by DKK 8 million. Therefore a net DKK 33 million saving was achieved for the DKK 20 million spent on the project, demonstrating that the integration of Smarter Choices with infrastructure improvements can be cost-effective.

Odense walking campaign

K.79 A Step in the Right Direction was a campaign that focused on walking in and around Odense in Denmark. The campaign was carried out 18th April - 15th May 2005 as a co-operation between Odense and Slagelse. In order to encourage daily exercise both Odense and Slagelse handed out 5,000 and 1,000 pedometers respectively for free. All the pedometers were distributed after three days. The pedometers were distributed in co-operation with three sport shops and a supermarket.

K.80 With a pedometer in the belt people can see how much walking and moving they are doing during a day. It also provides an idea about the energy consumption and how many kms people walk during a day, a week and a month. This contributes to encouraging daily exercise.

K.81 In Odense the participants in the campaign were offered 13 guided tours in the local areas of Odense. In addition to this the city council made 4 new maps from each area of Odense with suggestions to walks. Two-third of the participants were women and two thirds of the participants were under 50 showing that walking is not only of interest to older people. There were more women represented among the 30-60 year old than men.

Mobility Management: Targeting households in Lundby, Göteborg (Target, 2005)

K.82 A Mobility Management Centre was set up in Lundby, a district of Göteborg. It developed a number of different smarter choices approaches to promote sustainable travel through mobility management. These included:

- information meetings,
- outdoor activities,
- bus side advertising displays,
- cycling marketing campaign
- website pages,
- telephone marketing techniques, and
- door-to-door information drops.

K.83 In 2003 the 'Scrap your Old Car' campaign was launched as older cars account for more than half the emissions of hydrocarbons, carbon monoxide and sulphur oxides in Sweden. The aim was to raise people's awareness of the problem, scrap old cars and encourage people to join car sharing schemes. This inventive project offered the owners of old cars free public transport for one year, or free one year membership in a car pool. Information was sent to 2300 car owners. A Lundby car clubs campaign provided information at meetings and advertising on all buses across Göteborg.

K.84 A car emission campaign was launched to raise awareness about the environment and car emissions. The main communication method was leaflet information drops to all households in the area, supported by direct marketing telephone calls to all 4,000 car owners. The short telephone calls provided information about car-sharing, walking, cycling and public transport as well as information about eco 'green' driving and clean vehicles. A measurement station for emissions from old cars was set up in the Lundby area. Motorists passing the measurement station could see how their vehicle affected the environment and a snapshot indication of their driving habits.

K.85 The project was delivered through a transport "Mobility Management Centre" in Lundby, Goteborg. To reduce the expected increase in car trips due to new housing and employment on the Island of Lundby, a mobility management centre was established to support investment in sustainable transport infrastructure. The Lundby Mobility Management Centre is a one stop centre to provide information and promote the use of public transport, car clubs, car sharing, teleworking, cycling and walking.

K.86 This project was undertaken as part of the EU Region Development Fund and Interreg III funded Target 2 project which aimed to develop, implement and evaluate a package of

mobility management activities to promote, facilitate and encourage the use of alternative modes of transport to the car.

K.87 In October 2004 invitations were sent out to attend a special 'scrap that car' launch day, with 30 people officially scrapping their cars. During the first six months of the campaign 96 residents of Lundby chose to scrap their cars. Car clubs in Lundby have grown with over 120 members using a total of eight cars, which is attributed to the information and advertising campaign.

K.88 The performance of the car emission campaign was not directly evaluated. However, 80% of those called requested more information.

K.89 The overall Lundby household project is monitored annually through survey questionnaires. Results for 2004 with 900 households involved showed that 20% of people questioned had considered changing their travel patterns with an actual 4% having changed their travel behaviour as a consequence of the Lundby mobility management centre campaigns.

Transport Management Associations: Lloyd District Transport Management Association, (Annual Report, 2006)

K.90 The aim of the Lloyd District TMA in Portland USA is to *'improve access and mobility for those who work, reside, shop and commute in and to the Lloyd District'*. In order to achieve this, the TMA focuses on improving public transport, journey sharing, parking management and pedestrian and cyclist measures. The Lloyd TMA has been running for 10 years.

K.91 Examples of schemes the TMA has implemented include *'Commuter Connection'*, which is a *'retail transportation store that brings a new level of convenience for access to transportation information and services.'* As well as improving cycling and walking facilities and public transport services the LDTMA also promotes the use of these modes. One scheme used to facilitate public transport use is the 'Passport Transit Pass Program' which is an annual pass that can be used in all zones of the district, and can be purchased by employers at a reduced rate for employees.

K.92 There are 9,000 employees of TMA members, residents and visitors to Lloyd District. The Lloyd District has 650 businesses and 20,000 employees. The Lloyd District Transportation Management Association (LDTMA) was set up in 1995 and now has 69 member businesses which cover approximately 9,000 employees. In 2005 the total TMA funds targeted at trip reduction activities came to $210,200 (about £378,000).

K.93 In 2005 the modal share of the drive alone category was 42.7%, which is a reduction from 1997 figure of 60%. This percentage (of drive alone trips) has decreased in 6 out of the last 7 years. Public transport use has also increased in the same period (21% - 39.1%) particularly among Passport Transit Pass Members. Overall this has reduced about 1,000 daily peak period vehicle trips and about 3.9 million annual vehicle-miles.

K.94 The Lloyd TMA initiatives also resulted in improved air quality, increased capacity for customer and visitor trips and reductions in future development costs for the provision of parking.

The EU CiViTAS programme

K.95 CiViTAS is an EU initiative aiming to help cities to achieve a more sustainable, clean and energy efficient urban transport system by implementing and evaluating an ambitious, integrated set of technology and policy based measures. CiViTAS works on two strands: the organisation and improvement of transport systems, and understanding the human reality which is motivated by pricing, ticket flexibility, accessible systems and education.

CiViTAS CARAVEL

K.96 One such measure is the Stuttgarts Carpooling service *'Pendlernetz Stuttgart'* which is supplemented by an event oriented carpooling feature. (CiViTAS CARAVEL). CiViTAS CARAVEL is an internet-based platform of carpooling that offers a new feature especially for big events. This new feature was offered to the public the first time for the top game of the German 1st Soccer-League (Bundesliga) in 2007. "Event-oriented carpooling" involves the organisation of car-pools to big events in Stuttgart. Since around 50,000 visitors are expected to visit each match, the demand for travel to one location at the same time is very high. Visitors now get the opportunity to reach the stadium fast, cheap and in an environmental friendly way by using the new event-oriented carpooling available on the internet. The Stuttgart car-pooling system aims to organise car-pools from door to door, especially for commuters in the Stuttgart Region. The service, which itself is free of charge, is operated by the Stuttgart Mobility Centre, with the aim to improve the mobility of all citizens and visitors of the city and the region of Stuttgart.

K.97 CiViTAS CARAVEL also involves the Genoa Info Mobility Bus. This hybrid bus was transformed into a mobile information centre on active transport services in the City of Genoa The centre distributes information and collects comments and suggestions from citizens in a visitors' book. The CiViTAS CARAVEL InfoMobility Bus allows people to provide suggestions, needs and comments on public transport and mobility in the town.

CiViTAS SMILE

K.98 Another CiViTAS project involves public transport priorisation in Tallinn (CiViTAS SMILE). The city has had many problems regarding co-ordination and co-operation as a result of a drawn-out procurement process. A five sided contract was therefore finalised in December 2006 between the City of Tallinn, Tallinn Bus Company (TAK), Tallinn Tram and Trolleybus Company (TTTK) and other operators.

K.99 As a result public transport priorities are being introduced. The public transport vehicle priority service system, which includes 26 intersections on 12 km of lanes reserved for public transport vehicles, 6 bus and 3 trolleybus lines and equipment for 63 buses and 48 trolleybuses, will come under a common organisation. The passenger information system, which is based on GPS and contains modern internal and external information displays, sound notification systems and on board computers on 252 buses (plus 20 trailers), 52 trams and 89 trolleybuses is also being synchronised and integrated.

CiViTAS MOBILIS

K.100 CiViTAS MOBILIS is another EU project in Ljubljana (Slovenia). During a three day meeting, the host city organised a dedicated workshop on safe cycling. During this workshop, the participants were informed by the EC on recent developments regarding cycling in the EU, followed by presentations of cycling safety issues in the four CiViTAS MOBILIS cities Ljubljana, Odense, Toulouse and Venice. Ljubljana and Toulouse have focused mainly on the construction of cycle lanes and routes throughout their cities. Odense on the other hand reported on a whole range of activities regarding cycling they implemented: introduction of green waves for cyclists, maintenance of cycle paths in wintertime, construction of a cycle centre, introduction of permanent cycle lights. The city of Venice described its city bicycle plan.

K.101 The city of Ljubljana has made a significant effort in order to improve cycling within its city centre, including the construction of cycle lanes and cycle parking. Although difficulties such as people parking their cars on bicycle lanes and pavements still remain. Within the CiViTAS MOBILIS project the city has started an awareness raising campaign in order to put an end to this prohibited parking.

CiViTAS SUCCESS

K.102 UK involvement in CiViTAS was in the form of a political meeting in Preston (CiViTAS SUCCESS) in March 2006. Politicians from other cities and projects discussed four topics: the need to develop a common language of sustainability; supporting political champions for best practice; involving politicians and citizens; using subsidiarity in the interest of citizens.

K.103 The SUCCESS participants and their city representatives are actively involved in CiViTAS Forums, which gather together those who are keen to make cities a better place to live now and for the future.

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