

# **Quiet Lane Study: Final Report**

**by J V Kennedy, A H Wheeler and C Inwood**

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by **J V Kennedy, A H Wheeler and C Inwood (TRL Limited)**

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# CONTENTS

<b>Executive summary</b>	<b>i</b>
<b>1 Introduction</b>	<b>1</b>
1.1 Background	1
1.2 Definition of Quiet Lanes	1
1.3 Quiet Lanes networks	2
1.4 Possible alternatives to Quiet Lanes	2
1.5 Limitations of Quiet Lanes	2
1.5.1 Non-motorised users	2
1.5.2 Motor vehicles	3
1.6 Signing	3
1.7 The environment	3
<b>2 Quiet Lanes pilot projects</b>	<b>4</b>
2.1 Norfolk	4
2.1.1 Background	4
2.1.2 Implementation	4
2.1.3 Measures	4
2.1.4 Signing	4
2.1.5 Consultation and publicity	5
2.1.6 Maintenance	5
2.2 Kent	5
2.2.1 Background	5
2.2.2 Implementation	5
2.2.3 Measures	6
2.2.4 Signing	6
2.2.5 Consultation and publicity	6
2.2.6 Maintenance	6
<b>3 Monitoring</b>	<b>7</b>
3.1 Success criteria for pilot schemes	7
3.2 Monitoring programme	7
3.3 Foot and Mouth Disease	8
3.4 Road works in Kent	8
<b>4 Speed/flow monitoring</b>	<b>8</b>
4.1 Automatic speed/flow measurements	8
4.1.1 Traffic flow	9
4.1.2 Mean and 85 <sup>th</sup> percentile speeds	10
4.2 Manual classified counts	11
4.2.1 Norfolk	12
4.2.2 Kent	12
4.2.3 Total counts by road user type	12
<b>5 Attitudinal surveys</b>	<b>14</b>
5.1 Focus groups	14
5.2 Questionnaire surveys - samples	15
5.2.1 Introduction	15

5.2.2	Telephone survey sample	15
5.2.3	Postal survey sample	15
5.2.4	Traders' and destination survey sample	16
5.2.5	Horse riders' and carriage drivers' survey sample	16
5.2.6	Origin-destination survey of non-motorised users of Quiet Lanes (Kent only)	16
5.2.7	Sample characteristics	16
5.3	Results from questionnaire surveys	17
5.3.1	Purposes of scheme	17
5.3.2	Opinions of scheme	18
5.3.3	People benefiting from the scheme	20
5.3.4	Concerns about Quiet Lanes	20
5.3.5	Frequency of use of single-track country lanes	23
5.3.6	Motorised use of single-track country lanes / Quiet Lanes	25
5.3.7	Non-motorised use of single-track country lanes / Quiet Lanes	26
5.3.8	Destination surveys	29
5.3.9	Traders' surveys	30
5.3.10	Origin-destination surveys of non-motorised users of Kent Quiet Lanes	30
5.3.11	Signing	31
5.3.12	Other measures related to scheme	32
5.3.13	General comments	32
5.4	Video surveys	32
<b>6</b>	<b>Accidents on Quiet Lanes</b>	<b>33</b>
6.1	Norfolk	33
6.2	Kent	34
<b>7</b>	<b>Other Quiet Lanes schemes</b>	<b>34</b>
7.1	Existing proposals for Quiet Lane schemes	34
7.2	Potential for Quiet Lanes schemes	37
7.3	Potential national benefits	37
<b>8</b>	<b>Essential components of Quiet Lane schemes</b>	<b>37</b>
<b>9</b>	<b>Summary and conclusions</b>	<b>38</b>
9.1	Summary	38
9.2	Conclusions	40
	<b>Acknowledgements</b>	<b>41</b>
	<b>References</b>	<b>41</b>

## Executive summary

### Background

Quiet Lanes are an initiative of the Countryside Agency, supported by the Department for Transport (DfT). They are intended to form a network of country lanes, suitable for use by walkers, cyclists and equestrians as well as by motor vehicles, with the aim of helping to preserve the character and tranquillity of rural areas and encouraging an increase in non-motorised users, whilst maintaining vehicular access. The idea is to make motorists more aware of non-motorised users and, over time, to reduce the number and speed of motor vehicles by changing the ‘hearts and minds’ of local residents rather than lowering the speed limit or using physical measures for enforcement.

The Countryside Agency has supported two pilot projects: in West Kent (Greensand Ridge) and north Norfolk. In conjunction with the County Councils, TRL undertook the ‘before’ and ‘after’ monitoring of traffic flows and speeds, as well as attitudinal surveys concerning the schemes on behalf of DfT’s Charging and Local Transport Division. This is the final report on the project.

The Countryside Agency recently issued a formal definition of Quiet Lanes. They are defined as minor rural roads which are appropriate for shared use by walkers, cyclists, horse riders and motorised users. These roads should already have low traffic flows travelling at low speeds – designation as a Quiet Lane should not be used as a traffic calming device or to prevent rat-running. The aim is to preserve the character of rural roads by seeking to contain traffic growth.

Ideally Quiet Lanes link homes with shops, bus routes, schools, workplaces, village halls, pubs, and other local amenities, allowing people to use non-motorised modes of transport in preference to cars for short journeys. Recreational use of the network might comprise walking the dog, walking to visit friends or go to the pub, rambling for pleasure (possibly using Quiet Lanes to access or link existing public rights of way), jogging, horse-riding and cycling. Apart from vehicles belonging to residents and their visitors, farm vehicles, delivery vehicles, post vans and utility vehicles need access to the network.

Quiet Lanes schemes are seen as being long term, because of the possibility of attitudinal change over time and because no enforcement measures have been used. The success of the schemes has been gauged largely in terms of local residents’ views, but traffic flows, vehicle speeds and the numbers of non-motorised users have also been monitored.

Both schemes were aimed at local residents rather than tourists, although there is a similar network of “Green Lanes” in Jersey, set up in 1993, which is now promoted as part of Jersey’s sustainable tourism. The Jersey scheme is viewed as successful, with numbers of non-motorised users similar to those of motor vehicles. The lanes there are subject to a 15mph speed limit, whereas Quiet Lanes in Norfolk and Kent are subject to the national speed limit, except where there is a 30mph speed limit through a village.

Other schemes are under consideration but have mostly not been implemented. Many Local Transport Plans (LTPs) pay at least lip service to Quiet Lanes as the concept fits the current increase in emphasis on non-motorised users. However, because of the need to change hearts and minds, considerable community involvement is required to develop an appropriate network that local people can buy into. It is becoming recognised that successful traffic calming requires high levels of community participation, but such consultation can add substantially to the costs.

### Monitoring

There are two main difficulties in cost-effective monitoring. Firstly, the schemes are extensive, with approximately 40km of Quiet Lanes in Kent and 59km in Norfolk. Thus there are many more possible survey points than is usual in, for example, village schemes. Secondly, unlike urban networks, the flows are extremely low. Flows vary by time of day, between weekdays and weekends, and by time of year. Comprehensive monitoring of the network would call for counts to be repeated over a number of days and at regular intervals. Here, a pragmatic approach was adopted in which a

sample of suitable monitoring points was selected, allowing greater emphasis to be placed on attitudinal surveys.

Monitoring comprised measurements of vehicle speeds and flows, classified vehicle counts, counts of pedal cyclists, pedestrians and horse riders, and extensive attitudinal surveys before and after scheme implementation, covering 3 years of ‘after’ surveys in Norfolk and 2 in Kent.

- Automatic speed/flow measurements
- Manual classified counts
- An origin-destination survey of non-motorised users (Kent)
- Residents’ focus groups
- Telephone opinion surveys of residents
- Postal questionnaire surveys of car drivers
- Traders’ opinion surveys
- Video surveys.

## Results

The main results are as follows:

- No change or small decrease in measured traffic on Quiet Lanes at the same time as an increase on the control roads
- Little change in measured vehicle speeds on Quiet Lanes or control roads
- Little change in observed numbers of pedestrians in Norfolk, but a small increase in Kent
- Sustained strong support for the scheme but about one-third in Norfolk and half in Kent say it is not working in practice
- Small *declared* increase in non-motorised use
- Small *declared* decrease in motorised use
- Declared increase in careful driving
- There remain some concerns over safety
- There remain perceived problems with Quiet Lanes.

## Discussion and conclusions

Encouragingly, vehicle flows on Quiet Lanes have remained broadly unchanged, whilst there have been large increases on some control roads in Kent. It is not clear to what extent the Quiet Lanes scheme has contributed to the Kent result, however, in view of the extensive road works in the area since its launch. Since the control roads in question were higher quality, it is not clear whether the traffic concerned, probably generated in part by the extensive development in the local area, might have used these roads in preference to Quiet Lanes even in the absence of the scheme.

Expectations that there would be reductions in vehicle speeds were unrealistic, largely because the lanes in the pilot areas are naturally traffic calmed, although it was reported that some people continue to drive too fast, considering the lack of forward visibility. This lack of measured change in speeds should be viewed in the light of the small numbers of non-motorised users. Drivers on Quiet Lanes encounter few non-motorised road users, so have no particular reason to drive more *slowly*, but may in fact drive more *carefully*. Some of those interviewed commented that they now drive more

carefully on Quiet Lanes in case they met non-motorised users. This is more likely to be the case outside peak periods, when drivers may be in less of a hurry.

Although there have been large increases in pedestrian use in Kent, numbers remain low and there has been no significant change in cycle use. Longer distances and lack of street lighting in rural areas make commuting or shopping by pedal cycle or on foot impractical for most. The main purposes of non-motorised use of the lanes were for leisure e.g. walking, cycling or riding a horse for pleasure / exercise and walking the dog.

The majority of local people are aware of the schemes and there is sustained support for them, together with some declared changes in behaviour. However, about half of those interviewed in Kent and one-third in Norfolk did not think the schemes were working in practice. A degree of apathy towards Quiet Lanes as a topic of local interest in Kent was detected.

Overall, the Quiet Lanes pilot schemes should be viewed as a partial success. They have achieved some of their aims, but not the *expectations* of stakeholders. The new definition of Quiet Lanes as preserving the status quo fits the picture well, but renewed efforts will be required to convince the local population that the schemes are a success. Publicity and continued review will be needed in the pilot areas. It may be difficult to sustain interest in the longer term.

In Kent, some revision of the network to exclude roads used for commuter parking and rat-running, more draconian traffic calming measures on wider roads such as Comp Lane and further improvements to the crossing points on the B2016 would contribute to this. Because of the rat-running by commuters and the rapid increase in the local population, it is particularly important that publicity there is continued at regular intervals.

It is not clear to what extent the results can be translated to other areas, since various aspects are unique to the pilot areas and to a pilot scheme:

- Extensive development close to the Kent network leading to a large increase in local traffic
- Kent area close to main roads, motorways (M25, M26) and centres of population e.g. Tonbridge, West Malling and Sevenoaks, and to London
- Local Kent population has high proportion of commuters (e.g. to London), whereas Norfolk has a stable population with a high proportion of retired people
- Propensity of some lanes for rat-running, particularly in Kent
- Some 'through' traffic in Kent
- Day-trippers in Kent, mixture of day-trippers and tourists staying in the area in Norfolk
- As a pilot scheme, consultation was extensive and there was a particularly dedicated team in Norfolk
- Following widespread publicity, awareness of the scheme was high
- Community spirit
- Increased co-operation within county councils.

The idea of Quiet Lanes has caught on and a number of local authorities are in the process of setting up similar schemes. Some schemes have been misconceived, however, since the existing roads are too busy or would require traffic calming measures to lower speeds. Others are intending to impose speed limits. In addition, there are numerous suggestions from the general public that one particular road needs to be made a Quiet Lane.

In spite of the associated increase in costs and intrusiveness, the Quiet Lanes sign should probably be increased in size and height, to ensure it is clearly visible to car drivers. This may also help to minimise the problems of foliage obscuring the signs. It needs to be nationally recognised in order for non-local people to comply with it.

New schemes need to be well thought out and supported by a large proportion of the local population. They are about promoting community spirit as much as increasing walking and cycling. Local businesses who use the lanes need to be persuaded to minimise this use as far as possible. Quiet Lanes are not intended as a traffic calming device and should not be used where traffic flow and/or speeds are already a problem.

# 1 Introduction

## 1.1 Background

Quiet Lanes are an initiative of the Countryside Agency, supported by the Department for Transport (DfT). They are intended to form a network of country lanes, suitable for use by walkers, cyclists and equestrians as well as by motor vehicles, with the aim of helping to preserve the character and tranquillity of rural areas and encouraging an increase in non-motorised users, whilst maintaining vehicular access. The idea is to make motorists more aware of non-motorised users and, over time, to reduce the number and speed of motor vehicles by changing the ‘hearts and minds’ of local residents rather than lowering the speed limit or using physical measures for enforcement.

Quiet Lanes are rural roads that mostly satisfy the following criteria:

- narrow single-track road
- very low flow
- not a main access route
- no street lighting
- national speed limit

A typical Quiet Lane is shown in Figure 1. Special traffic signs mark the start and end of Quiet Lanes (Figure 2). ‘Through’ traffic is directed away from the lanes.

Two pilot projects have been supported by the Countryside Agency, in north Norfolk and west Kent (Greensand Ridge). In conjunction with the County Councils, TRL has undertaken the monitoring of traffic flows, speeds and attitudinal surveys concerning the schemes on behalf of DfT’s Charging and Local Transport Division. This is the final report on the project. It compares the results of the monitoring from Kent and Norfolk and evaluates the success of the schemes. Full details of each scheme are given in Kennedy et al (2003A and B).

A variety of other schemes are under consideration but have mostly not been implemented. Many Local Transport Plans (LTPs) pay at least lip service to Quiet Lanes as the concept fits the current increase in emphasis on non-motorised users. However, because of the need to change hearts and minds, considerable community involvement is required to develop an appropriate network that local people can buy into. It is becoming recognised that successful traffic calming requires high levels of community participation, but such consultation can add substantially to the costs.

## 1.2 Definition of Quiet Lanes

The Countryside Agency recently issued a formal definition of Quiet Lanes. They are defined as minor rural roads that are appropriate for shared use by walkers, cyclists, horse riders and motorised traffic. These roads should already have low traffic flows travelling at low speeds. Quiet Lanes should not be used as a traffic calming device or to prevent rat-running. The aim is to preserve the character of rural roads by seeking to contain traffic growth.

The concept is seen as having 3 key elements:

- Local community involvement to encourage a change in user behaviour
- Area-wide direction signing strategy
- Quiet Lane signing

The Countryside Agency has developed a guide entitled ‘Share with Care’ emphasising equal priority for all users.

In summary, the concept is now intended to preserve the status quo on these lanes rather than to be a means of controlling speeds or traffic flows.

### 1.3 Quiet Lanes networks

The concept is intended to apply to a network rather than to individual roads. Ideally Quiet Lanes link homes with public rights of way, shops, public houses, schools, workplaces, village halls, bus routes and other local amenities, allowing people to use non-motorised modes of transport in preference to cars for short trips. Recreational use of the network might comprise walking the dog, walking to visit friends, going to the pub, rambling for pleasure, jogging, horse-riding and cycling. Apart from vehicles belonging to residents and their visitors, farm vehicles, delivery vehicles, post vans and utility vehicles need access to the network.

Careful planning of a Quiet Lanes network is required from the outset, with extensive input from local residents. Diversion from Quiet Lanes depends crucially on the availability of reasonably short alternative routes, which are not too busy, since some drivers use potential Quiet Lanes to avoid busier roads. Non-motorised users often assess a route in terms of the section or sections perceived as most dangerous and thus crossing points where Quiet Lanes join or cross other roads needed to be assessed at the design stage.

The Quiet Lane pilot projects were intended for local residents and not to increase tourism. A similar network of 'Green Lanes' in Jersey, set up in 1993, is now promoted as part of Jersey's sustainable tourism. The lanes in Jersey are subject to a 15mph speed limit, whereas Quiet Lanes in Norfolk and Kent are subject to the national speed limit, except where there was an existing 30mph speed limit through a village.

### 1.4 Possible alternatives to Quiet Lanes

Alternatives to Quiet Lanes should be considered at the planning stage. These might comprise:

- Signing lanes as access only
- Introducing a 20mph speed limit enforced with physical traffic calming measures such as road humps
- Closing off the lanes e.g. with entry gates

although restrictions on access may be unacceptable to the communities involved.

Measures other than Quiet Lanes may be more appropriate where there is a particular speed problem, for example on a wider road joining Quiet lanes, or where there is only a single road or a limited network, or where access is not required. It is therefore important to consider the aims of the intended scheme, as these will affect the treatment selected. New signs or features may still be necessary e.g. a sign for a stretch of road to be used by walkers, cyclists and horse riders.

### 1.5 Limitations of Quiet Lanes

#### 1.5.1 Non-motorised users

On Quiet Lanes, there is unlikely to be sufficient room for vehicles to pass each other and it may even be difficult for vehicles to pass walkers, cyclists or horse riders, where there are high banks or hedgerows on either side. The absence of a verge could deter non-motorised users even if speeds and flows are low.

In rural areas, both cycling and walking are often seen only as recreational activities, because of the distances between settlements and the lack of street lighting (The Children's Society, 1997). In general, people walk up to 1 mile or cycle up to 5 miles on utility trips (Gardner and Gray, 1998). Beyond that, the time available and the fitness of the individual are important factors.

The lack of facilities in rural areas means that average distances travelled by car are longer than those in urban areas. Very few villages have a shop or a Post Office, a chemist, doctor or bank. Shopping trips are often made by car to supermarkets in local towns and this seems unlikely to change, although

people might be encouraged to reduce their trip frequency in the longer term, for example by combining shopping with other trips or making more use of local shops where these exist.

All these factors make it harder for people living in rural areas to change mode.

On the other hand, the dwindling or non-existence of public transport means that children and others without motorised transport must walk, cycle or obtain a lift, whatever their journey purpose. Walking and cycling can also be promoted as a health benefit. There is therefore considerable potential for walking and cycling on Quiet Lanes. However, it must be recognised that those with access to a car will use it when the weather is cold or wet, when it is dark, if they need to carry a heavy load, if they have other errands, or if time is at a premium. From November to January, commuters often make both morning and evening journeys in the dark, a considerable deterrent to walking or cycling along unlit rural roads with no footway.

Increased non-motorised use of Quiet Lanes is most likely to be recreational at least initially. Other possibilities are for travel to school or commuter trips, particularly in summer. Over time, it is possible that this may lead to a gradual increase in functional use. This would be self-perpetuating: as more drivers switched to walking and cycling, there would be less traffic, encouraging further increases in walking and cycling. At the same time, drivers who also walked, jogged, cycled or rode a horse on the lanes would be more likely to show consideration for others. The converse is also true. Busier roads are less pleasant and would make non-motorised users feel less safe and hence lead to a decrease in cycling, walking and horse-riding trips which in turn could increase motorised traffic in a spiral of decline.

### **1.5.2 Motor vehicles**

Access is an important feature of the pilot schemes, as there was no intention of closing roads. Local people who live along the lanes need access for their own vehicles and those of their friends, as well as public utilities, delivery vehicles and local tradesmen. Farms may require use of the lanes by agricultural vehicles and heavy goods vehicles. Thus, although motorised use could be reduced, it could not be eliminated.

## **1.6 Signing**

Changes to signing have two main functions, firstly to indicate Quiet Lanes and secondly to reduce 'through' traffic. There is a conflict between the design of signs appropriate for drivers and those appropriate for non-motorised users; signing also needs to be kept to a minimum in rural areas. Quiet Lane signs requiring approval from DfT were devised for the pilot schemes. They were relatively small and were mounted on low wooden posts erected at the entry and exit of each lane (Figures 3 and 4). The entry signs were intended to indicate to the road user that s/he is entering a different type of road. Repeater signs to remind drivers that they are using a Quiet Lane were mostly not used. The design has led to concerns that drivers fail to see the signs and that the signs can easily become overgrown.

'Through' traffic is directed away from Quiet Lanes, with minimal signing for local traffic (Figures 5 and 6). To do this efficiently, it is important to establish a local route hierarchy and to undertake a signs audit. Quiet Lanes should have viable alternative routes wherever possible. Since residents will generally know the roads, direction signs will not affect their choice of route, and therefore any decrease in their motorised use of the lanes is likely to be due to a deliberate change of either mode or route.

## **1.7 The environment**

Motorised traffic on Quiet Lanes leads to degradation of the hedgerows and verges, where there is insufficient space for vehicles to pass each other or where large agricultural vehicles use the road. Verges left not mown may conceal holes that could be dangerous for equestrians.

Local Authorities have a duty of care to maintain their roads and maintenance on Quiet Lanes will only be reduced if there are substantial changes in flow levels. Continued maintenance is important to the success of a scheme. The edges of roads can easily become degraded and therefore unsafe for non-motorised users. If hedge trimmings are not properly cleared, they can cause punctures for cyclists. These apparently trivial factors can have an impact on the success of the schemes.

## **2 Quiet Lanes pilot projects**

### **2.1 Norfolk**

#### **2.1.1 Background**

The Norfolk Quiet Lanes pilot project lies to the north east of North Walsham, between the main A149 from Norwich to Cromer and the B1159 coastal road south of Cromer. It is within the North Norfolk Area of Outstanding Natural Beauty and is an element of the Norfolk Coast Transport Strategy. The area attracts tourists, particularly to the coast.

Initially the scheme was aimed entirely at local people. Over time, it has come to be accepted that there may be benefits to the area if limited numbers of tourists are attracted to the lanes.

The 59km of Quiet Lanes comprise about 30 per cent of the local road network. Outside the villages, the national 60mph speed limit applies on all Quiet Lanes. Village 30mph speed limits within the scheme were extended slightly in two places.

Figure A1 in Appendix A (reproduced from a map supplied by Norfolk County Council) shows the Quiet Lanes Pilot Area and the locations of the various surveys which comprised the monitoring programme described in Section 3.

Norfolk County Council (2000) reported on public engagement and the implementation of the scheme; it will publish a final report containing 'after' results, analyses and conclusions later in 2003.

#### **2.1.2 Implementation**

The scheme was largely implemented in March 2000, with small modifications continuing until November 2000.

#### **2.1.3 Measures**

Measures were confined to the provision of special signs on wooden posts, devised to mark the entry and exit to Quiet Lanes (Figure 3). The entry signs are intended to indicate to the road user that s/he is entering a different type of road. Repeater signs to remind drivers that they are using a Quiet Lane have mostly not been used. The signs required approval from DfT.

#### **2.1.4 Signing**

A route hierarchy was set up in advance of, and separately from, the Quiet Lanes scheme, with the aim of ensuring that traffic uses the most appropriate roads. Finger post signs were introduced as part of the Quiet Lanes scheme to direct 'through' traffic by main roads. These show the name of the next village only and the wording 'by Quiet Lanes' (Figure 5). Way markers were used to sign walkers and cyclists to the next Quiet Lane.

### **2.1.5 Consultation and publicity**

The scheme was widely publicised by use of leaflets, exhibitions in village halls (which invited residents to indicate the most suitable lanes), local press, television and radio. ‘Everybody’ meetings led to the setting up of an Implementation Group, involving the various stakeholders. Schools were involved in the consultation process.

Groups such as bus companies, taxi drivers, public houses, hotels, delivery companies and transport associations were contacted concerning Quiet Lanes (Norfolk County Council, 2000). They were asked to encourage their employees to adopt the aims of the project.

### **2.1.6 Maintenance**

The Council has declared its intention of placing more emphasis on non-motorised users when inspecting Quiet Lanes.

Continued cutting of the verge twice a year is regarded as necessary for forward visibility and to provide a refuge for non-motorised users to avoid a passing vehicle. However, it was decided to investigate the possibility of varying the cut times and removal of the cut material as a trial.

## **2.2 Kent**

### **2.2.1 Background**

The Kent Quiet Lanes pilot area is bounded by the towns of Borough Green, Tonbridge, and East and West Malling and is bisected by the B2016 (Figure A2). Much of it lies within a conservation area, some of it National Trust. A number of villages (e.g. Dunk’s Green, Plaxtol, Crouch, Mereworth and Herne Pound) lie within or immediately adjacent to the Quiet Lane area. Because of the accessibility to the M20/M25/M26, it was recognised from the outset that there is a likelihood of tourist use of the lanes, particularly day-trippers. This is opposed by residents, who see the Quiet Lanes network as a local facility rather than a tourist attraction.

The network was designed to link towns, villages, public rights of way and the existing cycle routes in Tonbridge and West Malling. It comprises 40km of Quiet Lanes and several off-road links. Outside the villages, the national 60mph speed limit applies on all Quiet Lanes.

Some fruit farms lie within the network and therefore HGVs use the lanes in the fruit-picking season. There is a quarry on one Quiet Lane, with consequent traffic. In addition, some farms make money by acting as refrigeration plants, adding to the HGV traffic.

Concerns by landowners over the off-road links led to the removal of one Quiet Lane from the network. There was no change to a bridleway terminating in steps and the preferred alternative route is not possible. As a result, the network does not properly continue across the B2016 at the southern end. This road remains a major obstacle to horse riders or to parents allowing their children to use Quiet Lanes.

The report *Quiet Lanes around the Greensand Ridge - A National Demonstration Project in Kent* (Kent County Council, 2002) gives further details of the scheme and the first year of ‘after’ monitoring.

### **2.2.2 Implementation**

The Kent Quiet Lanes network was implemented between August 2000 and May 2001. The signs were erected in the autumn of 2000, but heavy rain and consequent flooding led to delays in completion of the scheme. It was largely completed by May 2001 and was officially launched and publicised in July 2001.

### **2.2.3 Measures**

In order for the network to be reasonably complete, some busier stretches of road have been included, with appropriate traffic calming measures. Comp Lane has good forward visibility leading to 85<sup>th</sup> percentile speeds exceeding 40mph before scheme implementation. The selected method of traffic calming was false cattle grids (Figure 7), comprising 5 rumble strips that are almost the same colour as the road and therefore not very visible. At a later date (subsequent to the photograph in Figure 7), a short length of white lining was added to the edge of the road for emphasis.

Quarry Hill Road / Thong Lane links the town of Borough Green to the rest of the Quiet Lanes network. It is relatively wide and straight and was therefore considered to be in need of traffic calming. It was intended to use surface treatment at the edges of the road, to give a visual narrowing. In the event, the centre of the road was surface-dressed in a pink material, leaving the edges of the road unchanged (Figure 8). The difference in colour between the centre of the road and the edges turned out to be relatively small and there was no definitive line to mark the change in surface.

At the junctions with the B2016, suitable 'crossing points' were introduced, with improved junction warnings and anti-skid surfacing on the main road. At some junctions, verge build outs were installed to improve visibility.

Teston Road forms a busy link between two Quiet Lanes. This road was narrowed by widening the footway to make it suitable for shared use by pedestrians and cyclists.

### **2.2.4 Signing**

A signing hierarchy was devised in which small villages are signed for approximately 2 miles. A signs audit was also undertaken and superfluous signs removed e.g. removal of warning signs on designated Quiet Lanes.

Old-style wooden or metal fingerpost signs were retained (with no change in destination). New fingerpost signs made of aluminium, but intended to look similar to the old painted wooden ones, were introduced. These signed traffic away from Quiet Lanes if there was a suitable alternative route. Where it was deemed unnecessary for non-users of Quiet Lanes, the new signs did not indicate the direction on the reverse side.

In some locations, Quiet Lane signs were unfortunately placed immediately adjacent to a de-restriction sign, giving rise to adverse comments about mixed messages.

New village signs incorporating the Quiet Lane logo were erected at the entries to the villages located on Quiet Lanes. A standard Quiet Lane sign was erected on the opposite side of the road and straw-coloured skid-resistant surfacing introduced.

### **2.2.5 Consultation and publicity**

Residents were extensively consulted via a series of meetings and public workshops in which they were invited to offer their views on the proposed scheme and suggest which roads should be included in the Quiet Lanes network. A newsletter with a description of the scheme was distributed to 40,000 households. A User Group continues to meet to discuss progress.

### **2.2.6 Maintenance**

Poor drainage means that the lanes are often flooded or covered in mud. Unfortunately, the flooding at the time of the implementation of the Quiet Lanes Project led to visible deterioration of the road surface (Figure 9) and consequently a belief by some users that these lanes were no longer being maintained.

### 3 Monitoring

#### 3.1 Success criteria for pilot schemes

The success criteria for the pilot schemes were based largely in terms of local residents' views, but included monitoring changes in traffic flows, vehicle speeds and the numbers of non-motorised users over time. No specific numerical values were set.

The subjective criteria based on the attitudinal surveys include:

- The views of local residents concerning the success of the schemes
- Declared increases in pedestrian, cycling and horse-riding use of the Quiet Lanes networks
- Declared decreases in motorised use of the network
- Proportion claiming to drive more carefully
- Perceived safety.

Objective measurements over a 3-year period included percentage changes in:

- Traffic flow counts and composition
- Vehicle speeds
- Numbers of non-motorised users
- Proportion of non-local drivers.

Reductions in speed can be induced by the presence of walkers and cyclists. However, the number of walkers and cyclists relative to motorised users is important. It is likely that a 'critical mass' of non-motorised users, or a proportion similar in magnitude to the number of motor vehicles, is required before speed is affected. Motorists are much more likely to slow down or to drive carefully if they are constantly expecting to encounter a walker or cyclist round the next corner.

The perception of safety was also expected to contribute to the success of the schemes. A key question is what would make non-motorised users *perceive* the network as safe or unsafe. Walkers and cyclists will not feel safe if speeds are high. A history of injury or damage-only accidents, or near misses, either by hearsay or personal experience, would also contribute to a road feeling unsafe. Even if the schemes lead to a decrease in mean speed, the lanes will not necessarily feel safe; an occasional vehicle travelling at high speed may be enough to deter non-motorised users. These users may feel threatened simply because there is insufficient room for a heavy vehicle to pass.

It was recognised that even if people are enthusiastic about a scheme, they will not necessarily increase their walking/cycling/horse riding use of the lanes; they may however, start to change their attitudes towards walking and cycling. Quiet Lane schemes may contribute to wider efforts to encourage walking and cycling for short journeys.

The schemes were envisaged as being long term because of the need for attitudinal change and because no specific enforcement was intended. 'After' surveys were therefore undertaken at regular intervals to allow for changes over time.

#### 3.2 Monitoring programme

The monitoring was intended to detect changes in flows or speeds, in so far as this was possible, and to detect attitudinal changes. It is described in detail in Kennedy et al (2003A and B).

There were two main difficulties in cost-effective speed/flow monitoring. Firstly, because of the extent of the Quiet Lane areas, there were many more possible survey points than is usual in, for example, village schemes. Secondly, unlike urban networks, the flows are extremely low. Flows vary by time of day, between weekdays and weekends, and by time of year. Comprehensive

speed/flow monitoring would call for counts to be repeated over a number of days and at regular intervals across the network. Here, a pragmatic approach was adopted in which a sample of suitable monitoring points was selected, allowing greater emphasis to be placed on attitudinal surveys.

Surveys were undertaken by TRL and by the County Councils before and after scheme implementation. They comprised:

- Surveys of traffic and speeds
  - Automatic speed/flow measurements on links
  - Manual classified counts at junctions
- Attitudinal surveys at intervals throughout the survey period
  - Telephone opinion surveys of residents (two 'after' surveys)
  - Postal questionnaire survey of car drivers
  - Opinion surveys of traders and network users
  - Origin-destination survey of non-motorised users (Kent only)
  - Residents' focus groups
- Video surveys.

### **3.3 Foot and Mouth Disease**

The outbreak of Foot and Mouth disease meant that footpaths in the Quiet Lanes areas were closed from February to June 2001 and the general public were asked to keep away from rural areas. The effect of the outbreak was small, as there are few farm animals in either pilot area. No manual classified counts were undertaken during this period. Speed/flow measurements were undertaken at 3 sites in Kent, but were not thought to be affected.

### **3.4 Road works in Kent**

Monitoring of the Kent scheme was dogged by road works, which affected large areas in 2001 and again in 2002. Although no surveys were undertaken on roads when there were road works in the vicinity, it is not known to what extent they affected usage after the roads were re-opened.

## **4 Speed/flow monitoring**

Network-wide speed/flow monitoring of the schemes was undertaken at intervals to establish their effect on flows and speeds over time. Traffic flow and speeds were measured on a number of Quiet Lanes and control roads, before and after scheme installation, at the same time of year (or the nearest equivalent time where this was not possible because of delays in scheme installation and major road works). Manual classified counts were undertaken at a number of junctions at similar intervals.

### **4.1 Automatic speed/flow measurements**

Speed measurements were undertaken in each direction using automatic traffic classifier (ATC) equipment connected to tube detectors; the measurements were carried out continuously for a period of 7 to 14 days at each site. Data were collected at 13 sites in Norfolk, of which 3 were control roads, and 17 in Kent, of which 7 were control roads. Monitoring positions are shown in the diagrams in the Appendices (Figure A1 for Norfolk and A3 for Kent). Full results for individual sites are presented in Kennedy et al (2003A and B). The summaries shown here give overall totals, excluding any sites for which data were missing for one or more years. The 'after' data is the most recent i.e. that from 2002/3.

### 4.1.1 Traffic flow

The total two-way traffic flows on the Quiet Lanes and control roads are shown in Table 1, together with the percentage changes before and after scheme implementation. The range of flows on Quiet Lanes was similar in Norfolk and Kent in both 'before' and 'after' surveys. Two-way 24-hour vehicle flow was between 40 and 700 vehicles per day on the Quiet Lanes and between 400 and 3500 vehicles per day on the control roads.

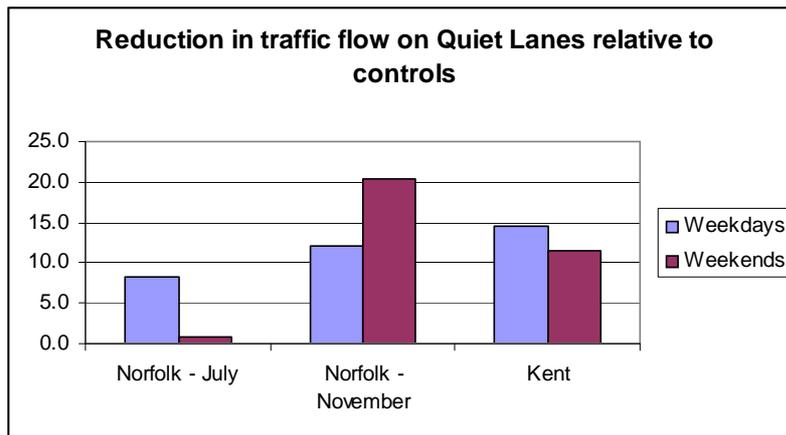
In Norfolk, the weekday 'after' flow in July was 10% lower on Quiet Lanes and 2% lower on the control roads than in the 'before' survey, a net reduction of 8% on Quiet Lanes. Corresponding changes in weekend flow were a 9% reduction on the Quiet Lanes and an 8% reduction on the control roads, a net reduction of 1% on Quiet Lanes. November 'after' flows on Quiet Lanes were down by 3% on weekdays and by 12% at weekends, compared to a 10% increase on both weekdays and weekends on the control roads. This equates to a reduction of 12% and 20% in motorised traffic on the Quiet Lanes relative to the control roads on weekdays and at weekends respectively.

In Kent, flow on weekdays was down 1% on the Quiet Lanes in the 'after' survey compared with a 16% increase on the control roads (Table 1). Corresponding changes in weekend flow were an 8% reduction on the Quiet Lanes and a 4% increase on the control roads. These figures represent a decrease on Quiet Lanes of 17% on weekdays and 12% at weekends relative to the control roads, which was seen as encouraging, but could have been affected at least in part by the extensive road works. Most of the increases on the control roads occurred on those with the highest flow; two roads in particular had increases of around 50%, over the three-year period.

**Table 1: Total two-way traffic flows<sup>1</sup> before (1998/99) and after (2002/03) scheme implementation**

Location	Weekday				Weekend			
	Before	After	% change	% change relative to controls	Before	After	% change	% change relative to controls
<b>Norfolk – July</b>								
Control roads	4407	4323	-1.9	-	4232	3898	-7.9	-
Quiet Lanes	1984	1785	-10.0	-8.3	1732	1582	-8.7	-0.8
<b>Norfolk - November</b>								
Control roads	4125	4542	+10.1	-	3427	3772	+10.1	-
Quiet Lanes	1943	1879	-3.3	-12.2	1245	1091	-12.4	-20.4
<b>Kent</b>								
Control roads	5503	6395	+16.2	-	3842	4004	+4.2	-
Quiet Lanes	2137	2122	-0.7	-14.5	1577	1453	-7.9	-11.6

<sup>1</sup> NB Some sites have been excluded from the totals owing to equipment failure. Weekday and weekend totals and the Norfolk July and November totals are therefore not directly comparable. Full details are given in Kennedy et al (2003A and B)



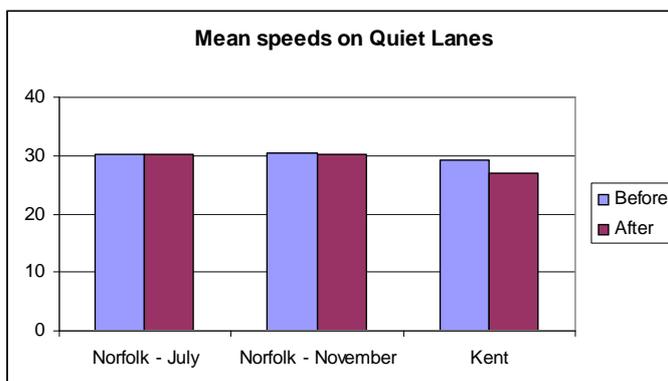
**4.1.2 Mean and 85<sup>th</sup> percentile speeds**

Results for mean and 85th percentile speeds are shown in Tables 2 and 3 respectively (see Kennedy et al, 2003A and B, for individual site values). Both mean and 85th percentile speeds were lower on the Quiet Lanes (30 and 36mph respectively in Kent and Norfolk combined) than on the control roads (36 and 43mph). There was little change in two-way mean speeds compared with the corresponding ‘before’ periods (Table 2), the differences, both overall and on individual links, being mostly less than 2mph. Similarly, changes in 85th percentile speeds overall (Table 3) and on individual links, were mostly less than 3mph.

**Table 2: Mean speeds (mph) before (1998/9) and after (2002/3) scheme implementation (both directions combined)<sup>1</sup>**

Location	Before	After	Difference
<b>Norfolk – July</b>			
Control roads	34.6	34.7	+0.1
Quiet Lanes	30.2	30.1	-0.1
<b>Norfolk - November</b>			
Control roads	34.1	33.3	-0.8
Quiet Lanes	30.5	30.2	-0.3
<b>Kent</b>			
Control roads	39.9	37.2	-2.8
Quiet Lanes	29.2	26.9	-2.3

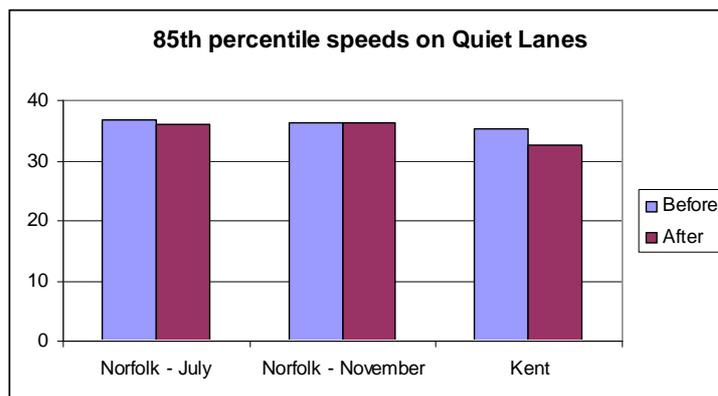
<sup>1</sup> NB Some sites have been excluded from the totals owing to equipment failure. Mean speeds in Norfolk in July and November are therefore not directly comparable.



**Table 3: 85<sup>th</sup> percentile speeds (mph) before (1998/9) and after (2002/3) scheme implementation (both directions combined)<sup>1</sup>**

Location	Before	After	Difference
<b>Norfolk – July</b>			
Control roads	41.2	40.2	-1.1
Quiet Lanes	36.8	36.0	-0.8
<b>Norfolk – November</b>			
Control roads	40.1	38.6	-1.5
Quiet Lanes	36.4	36.2	-0.2
<b>Kent</b>			
Control roads	46.3	43.1	-3.2
Quiet Lanes	35.2	32.6	-2.6

<sup>1</sup> NB Some sites have been excluded from the totals owing to equipment failure. 85<sup>th</sup> percentile speeds in Norfolk in July and November are therefore not directly comparable.



## 4.2 Manual classified counts

Manual classified counts were carried out over a twelve hour period at 11 junction sites in each of Norfolk and Kent. The counts were repeated at intervals over the monitoring period at the same time of year and on the same day of the week.

Road users travelling, for example, from arm A to arm B at a site were counted on both arms A and B so that numbers on Quiet Lanes and control roads could be totalled separately. Full results on a junction-by-junction basis are given in Kennedy et al (2003A and B). All percentage changes are between 1998/9 and 2002/3.

Road user movements were classified as follows:

- motorcycles
- cars
- buses/coaches
- light goods vehicles
- HGVs
- agricultural vehicles
- pedal cyclists (male / female / child)

- horse riders
- wheelchairs
- pedestrians (adult male / adult female / older male / older female / child)
- pedestrians (male / female / child) with a pushchair
- pedestrians (male / female / child) with a dog

Generally much greater variations were seen from year to year and on individual sites than in the overall totals. Fluctuations were also much greater for non-motorised users of the lanes than for motor vehicle counts.

#### **4.2.1 Norfolk**

Norfolk County Council carried out the manual classified counts (L1 to L11, shown in Figure A1 in Appendix A) at the same times of year as the automatic speed/flow measurements ('before' surveys in July and November 1999; 'after' surveys in July and November 2000-2002). The counts were on all roads at the junctions and thus include both control roads and Quiet Lanes, except at site L2, where all arms are control roads. The results are summarised in Table 4.

The July counts were on one weekday, except at site L3 (Saturday) and site L10 (Sunday). The November counts were supplemented with additional counts by TRL to provide data for one weekday and one weekend day at all sites except L2.

#### **4.2.2 Kent**

The manual classified counts were carried out at L1 to L11, shown in Figure A4. The 'before' survey took place in the autumn of 1999 and the 'after' surveys during the autumn of 2001 and 2002<sup>1</sup>. *Although the counts include road users on both control roads and Quiet Lanes, all road users counted on control roads were also observed on Quiet Lanes (or footpaths / bridleways) and the two are not independent.* (This was not the case for Norfolk Quiet Lanes, for which all turning movements were recorded.)

The counts were carried out on one weekday (Friday) and on one weekend day (Saturday or Sunday), except that no weekend counts were carried out at site L9.

#### **4.2.3 Total counts by road user type**

The results shown here are the totals on Quiet Lanes only.

#### **Motor vehicles**

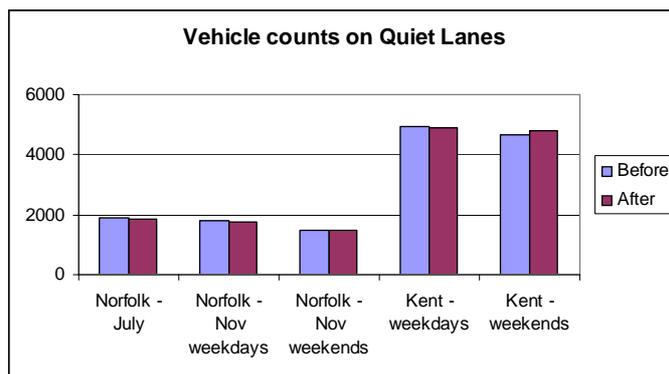
Total motor vehicle counts on Quiet Lanes in the 'before' and 'after' surveys (2000-2002) are presented in Table 4. Overall, in both Norfolk and Kent, vehicle flow counts on Quiet Lanes were broadly unchanged, although there was a slight drop of 5% on November weekdays in Norfolk and a slight increase of 3% in Kent at weekends. These differences were not statistically significant.

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<sup>1</sup> Second 'after' surveys at sites L1, L2 and L8 were delayed by road works until March 2003

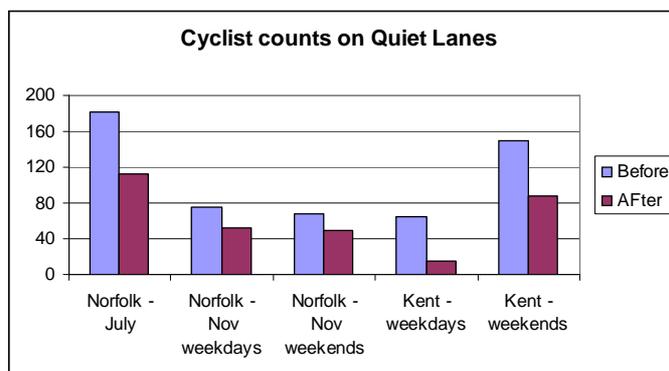
**Table 4: Two-way manual 12 hour counts on Quiet Lanes before (1999) and after scheme (2002/3) installation (all sites combined)**

	Periods	Before	After	% change
Vehicles	Norfolk - July	1871	1869	-0.1
	Norfolk - Nov weekdays	1822	1734	-4.8
	Norfolk - Nov weekends	1468	1466	-0.1
	Kent - weekdays	4950	4914	-0.7
	Kent - weekends	4647	4807	3.4
Pedal cycles	Norfolk - July	182	113	-37.9
	Norfolk - Nov weekdays	75	52	-30.7
	Norfolk - Nov weekends	68	50	-26.5
	Kent - weekdays	64	15	-76.6
	Kent - weekends	149	87	-41.6
Pedestrians	Norfolk - July	207	179	-13.5
	Norfolk - Nov weekdays	196	193	-1.5
	Norfolk - Nov weekends	329	234	-28.9
	Kent - weekdays	156	176	12.8
	Kent - weekends	240	430	79.2



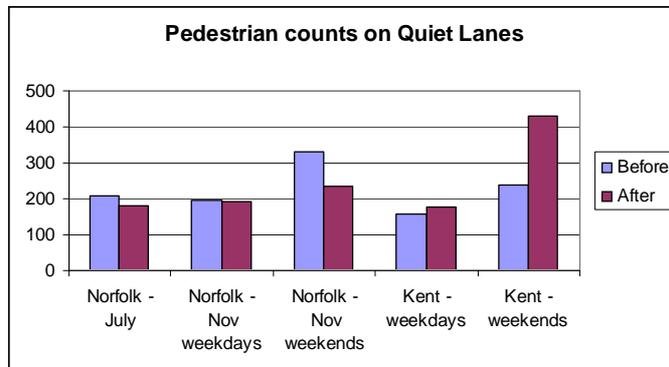
**Pedal cyclists**

Table 4 shows the same data for pedal cyclists. Although the after surveys show a large decrease, the differences are not statistically significant and at least part of the differences are likely to be weather-related, since there was heavy rain on some of the days in the ‘after’ surveys.



## Pedestrians

Table 4 also shows the pedestrian data. There was an overall decrease in Norfolk, particularly in the November counts, but an increase in Kent. Again, the weather is likely to have influenced these changes to some extent. The changes were not statistically significant.



## 5 Attitudinal surveys

### 5.1 Focus groups

Two focus groups were held in Norfolk in summer 2001 to investigate attitudes to Quiet Lanes following scheme implementation (Kennedy and Chinn, 2001). Similarly two focus groups were undertaken in Kent in autumn 2001. The intention was to get a spread of gender and age, and to include walkers, cyclists and horse riders in each group. For this reason, one group was held during the day and the other in the evening. Contact had been made with the British Horse Society (BHS) and the local branch of the Cycling Touring Club (CTC), but in Kent, no horse riders and only one cyclist attended.

The main results were as follows:

- The Quiet Lanes schemes were generally considered to be worthwhile, although Kent participants commented on the specific problems of road works and the extensive local development and were unclear about the aims of the scheme.
- There was concern that many motorists were still driving too fast on the lanes and that a speed limit should be introduced. If possible this should be enforced. Alternatively Kent residents suggested traffic calming measures. Kent residents thought the money could have been better spent.
- Norfolk participants felt that the main benefit was for walkers and cyclists, whilst those in Kent considered the lanes too busy, winding and narrow to be used safely by walkers.
- The existing Quiet Lanes signs were thought to be too small and give insufficient or misleading information. Alternative suggestions for pictures and wording on the signs were made by the participants.
- More publicity should have been undertaken. In Norfolk, it was felt that residents were aware of the scheme, but visitors were not. If schemes were introduced nationally people would be more aware of them. Many of the participants in Kent were familiar only with two Quiet Lanes both of which were used as rat-runs and one for overflow parking for West Malling station.
- The difficulty in obtaining a full complement of participants in the Kent focus groups itself indicated a degree of apathy over Quiet Lanes as a topic of local interest.

## 5.2 Questionnaire surveys - samples

### 5.2.1 Introduction

In interpreting the results of the questionnaire surveys presented in Section 5.3, it is important to understand the differences in sampling procedures and therefore a brief description of the surveys and the sample characteristics are included below in this section.

### 5.2.2 Telephone survey sample

The telephone survey samples of 100 residents in both Kent and Norfolk were selected at random from the electoral register in proportion to the population, except that the numbers from the local towns were deliberately limited. In Norfolk, the sample was based on that for an earlier pre-publicity survey by the County Council. The aim was that the sample would be demographically representative of those most likely to use the Quiet Lanes network. Only those who had already heard of the scheme were deemed eligible for interview. As far as possible, the same respondents were interviewed in the 'after' surveys, with substitutions made from the same village wherever possible. More than 50% of respondents were common to all three surveys.

### 5.2.3 Postal survey sample

The samples for the postal surveys for both schemes were obtained by recording the registration numbers of cars using the (potential) Quiet Lanes and tracing the names and addresses of the registered keepers of these vehicles through DVLA (see Kennedy and Wheeler, 2001). The registration numbers were collected as part of the manual classified counts and the surveys undertaken in Spring 2000 (before scheme implementation) and Spring 2002 (after scheme implementation).

Duplicate registration numbers, arising if the same vehicle was observed several times at the same site, and/or at more than one site, were removed. For each survey, a sample of 630 different registration numbers, selected at random in proportion to the numbers of cars observed at each location, was sent to DVLA. This led to details of about 400 owners of private cars registered at an address within each Quiet Lanes area. About three-quarters in Norfolk and two-thirds in Kent came from within, or the edge of, the Quiet Lanes area (Table 5).

Questionnaires were sent to all addresses in each Quiet Lanes area, to those within about 10 miles of each Quiet Lanes area and to others seen using (potential) Quiet Lanes. Response rates of at least one-third were obtained, which is exceptionally high for this type of survey.

**Table 5: Percentage of postal addresses of registered keepers of vehicles observed using potential Quiet Lanes**

Location	Norfolk		Kent	
	Before	After	Before	After
Within Quiet Lane area	59	55	45	40
Edge of Quiet Lane area	18	21	23	27
Other towns/villages close to Quiet Lane area	7	6	11	15
Elsewhere	11	7	16	13
Far	5	10	4	5
<b>Total</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>

#### **5.2.4 Traders' and destination survey sample**

Opinion surveys were also targeted directly at attractors ('destinations') within or on the edge of each Quiet Lane area. The surveys were carried out in the spring of 2000, prior to scheme implementation, and in the spring of 2003, at a range of locations:

- Village shops
- Public houses
- Riding stables
- Restaurant
- Golf course
- Railway station (Norfolk)

Respondents in the destination surveys were asked their opinion of the scheme, their mode of travel and the distance travelled. Only those who had heard of the Quiet Lanes scheme were interviewed. All lived locally.

Traders representing the facilities listed above were interviewed face-to-face about the effect of Quiet Lanes on trade. Additional interviews were conducted by telephone with estate agents who were asked about the effect on house prices. Again, only those who had heard of the scheme were eligible for interview.

#### **5.2.5 Horse riders' and carriage drivers' survey sample**

Because of the low number of horse riders contacted in the 'before' surveys, a postal survey of horse riders and carriage drivers was undertaken. Contact was made with the British Horse Society (BHS) who forwarded questionnaires on behalf of TRL to members within or near the Quiet Lanes network. Only a small number of questionnaires were returned (14 horse riders and 3 carriage drivers from Norfolk, 15 horse riders and 4 carriage drivers from Kent). The response rate is unknown, since it not known exactly how many questionnaires were sent out by BHS.

In Norfolk, one carriage driver and all but one of the horse riders had heard of the lanes, with the carriage driver and 8 of the riders using the lanes. In Kent, all had heard of the lanes and eleven horse riders and 2 carriage drivers used them. Those who did not use the lanes were unfamiliar with their location or were too far away from them, or would have difficulties in actually getting to them because of the need to traverse main roads.

#### **5.2.6 Origin-destination survey of non-motorised users of Quiet Lanes (Kent only)**

In conjunction with the manual classified counts in Kent, pedestrians, cyclists and horse riders were interviewed by the roadside in the 'before' surveys in November 1999 and again in the 'after' surveys in November 2002 and March 2003.

#### **5.2.7 Sample characteristics**

In both 'before' and 'after' surveys, more than one-third of respondents were aged 60 or over, with those in Norfolk having a higher age profile than in Kent (Table 6). Kennedy et al (2003A and B) also showed that there were differences between the profiles for the telephone and postal surveys, particularly in Norfolk, where the average age of telephone respondents was considerably higher than in the postal surveys. The proportions were much higher than the national age profile in which only 20% are aged over 60 (Annual Abstract of Statistics, 2000). To some extent, they reflect the local age profile. It is also the case that telephone surveys tend to be biased to those who are not working and who go out less, despite efforts to contact people during the evenings.

Around 90% of respondents drove a car, although the proportion in Norfolk was lower than that in Kent. Respondents in Norfolk were more likely to be cyclists, but less likely to be horse riders than those in Kent. About two-thirds of respondents were long-term residents (defined as having lived in the area for at least 10 years). About one third had children aged under 16.

**Table 6: Questionnaire survey sample characteristics<sup>1</sup>**

Percentage of respondents (Base)	Norfolk		Kent	
	Before (328)	After (320)	Before (290)	After (345)
Male	56	49	51	45
Not working	43	46	38	46
Aged 45 or over	72	74	56	64
Aged 60 or over	37	42	31	34
With children 16 or under	29	34	39	36
Drivers	90	85	94	94
Cyclists	45	35	37	30
Horse riders	9	9	14	13
Long term residents <sup>2</sup>	69	68	71	60

1. All surveys combined except Kent OD survey

2. Over 10 years

### 5.3 Results from questionnaire surveys

For each of Norfolk and Kent, the main results from the individual TRL questionnaire surveys were combined to give overall totals wherever possible in order to increase the sample size. The responses were found to be broadly similar for the different age groups and for both sexes. They were also similar across the different surveys, except where indicated in the text. Any statistically significant differences between ‘before’ and ‘after’ results were at the 5% level or lower ( $\chi^2$  test).

In interpreting the results, it is important to note that the ‘before’ surveys referred to ‘very narrow single-track country lanes’ rather than Quiet Lanes, since it was unlikely that the respondents were aware precisely which lanes would be designated as Quiet Lanes. Questions in the ‘after’ survey, however, referred to Quiet Lanes. *At least part of the differences between the responses must be attributed to this change in wording.*

Awareness of the schemes was high. In the postal surveys, over 90% of respondents in both the ‘before’ and ‘after’ surveys in Norfolk had heard of the Quiet Lanes scheme, compared with 67% in the ‘before’ and 88% in the ‘after’ surveys in Kent respectively. As indicated in Section 5.2.5, most of the horse riders and carriage drivers had heard of it. In the other surveys, respondents who had not heard of the scheme were not interviewed further and substitutes were found.

#### 5.3.1 Purposes of scheme

In the telephone and postal ‘after’ surveys, respondents were asked what they thought the main purposes of the scheme were (Table 7). The most common responses were to reduce motorised traffic on the lanes, to reduce speeds, to make non-motorised users feel safe, and to encourage more walking, cycling and horse riding. Respondents could give more than one answer.

**Table 7: Main purposes of the scheme ('after' surveys)**

Percentage of respondents <sup>1</sup> (base)	Norfolk		Kent	
	Postal (141)	Telephone (100)	Postal (164)	Telephone (100)
“To reduce motorised traffic on the lanes”	23	35	23	54
“To make pedestrians, cyclists and horse riders feel safe”	34	24	13	30
“To encourage more people to walk, cycle or ride a horse”	7	25	7	31
“To reduce vehicle speeds on the lanes”	9	15	20	33
“To improve the environment”	4	17	9	11
“To encourage users to have consideration for others”	11	16	7	14

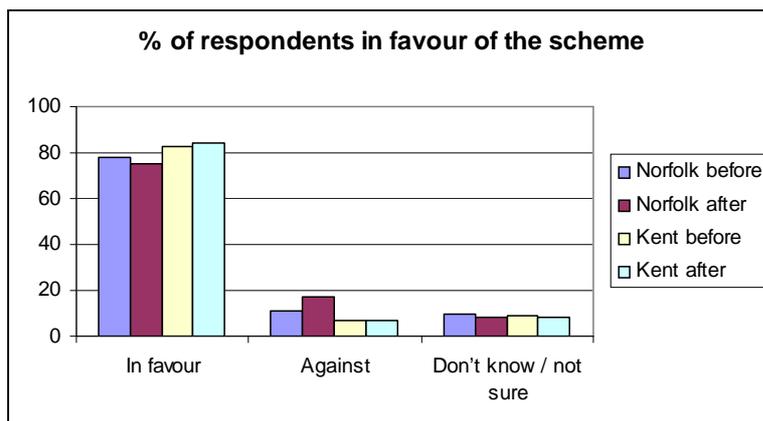
1 Respondents could give more than one answer

**5.3.2 Opinions of scheme**

There remained strong support for Quiet Lanes amongst the respondents in all ‘after’ surveys, with at least three-quarters in favour of the scheme (Table 8), almost identical to the ‘before’ survey. The percentages in Kent were slightly higher than those in Norfolk.

**Table 8: Percentage in favour of the scheme**

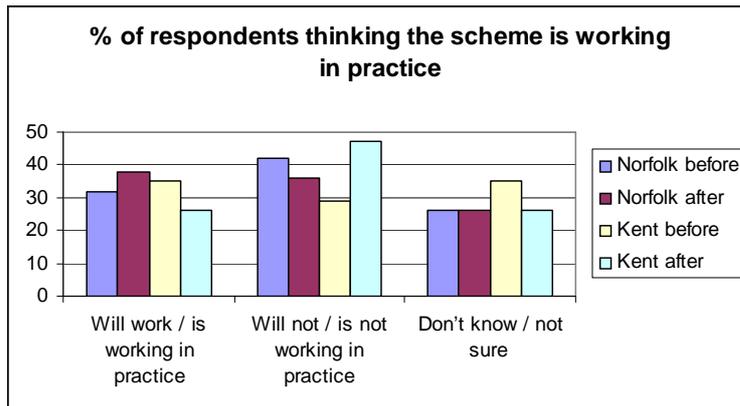
(Base)	Norfolk		Kent	
	Before (328)	After (299)	Before (290)	After (530)
In favour	78	75	83	84
Against	11	17	7	7
Don't know / not sure	10	8	9	8



In both Norfolk and Kent, about one-third in the ‘before’ surveys thought that the idea would work in practice, but whereas in Norfolk, the proportion thinking it was working was slightly higher in the ‘after’ surveys, it reduced to about one quarter in Kent (Table 9). Correspondingly, in Norfolk the proportion thinking the idea was not working decreased, with the number undecided remaining unchanged, but in Kent the proportion increased to almost half, with a reduction in the proportion who were undecided. The ‘before’ to ‘after’ differences were not statistically significant at the 5% level.

**Table 9: Percentage thinking the scheme will work / is working in practice**

(Base)	Norfolk		Kent	
	Before (328)	After (299)	Before (290)	After (530)
Will work / is working in practice	32	38	35	26
Will not / is not working in practice	42	36	29	47
Don't know / not sure	26	26	35	26



The main reasons given by those saying the scheme was working were that:

- There was less traffic
- People were driving more carefully / considerately
- There were more cyclists and walkers
- Speeds were lower
- The lanes were safer
- Drivers were more aware of walkers, cyclists and horse riders
- The signs were clear / understood / respected.

Those saying that the scheme was not working said that:

- There was still rat-running
- Speeds were still too high or they had not changed
- The scheme had made no difference
- There had been no change in the amount of traffic
- The signing was too small / inconspicuous / inadequate / poorly understood (e.g. by outsiders)
- The scheme was a waste of money
- Drivers ignored the scheme
- There was a lack of publicity about the scheme
- Drivers were unsure about the purpose of the scheme (Kent)
- Rubbish dumping had increased (Kent)

Those who were unsure about Quiet Lanes tended not to use them much or had views for and against.

Overall, even amongst those who supported the schemes, there was concern that Quiet Lanes were still used as rat runs and that some drivers were too fast.

### 5.3.3 People benefiting from the scheme

Respondents in the telephone, destination and traders' surveys were asked who they thought would benefit, or was benefiting from Quiet Lanes (Table 10). The most common responses were pedestrians, cyclists, local people and horse riders (respondents could give more than one answer). A smaller proportion of respondents in the 'after' surveys mentioned cyclists and horse riders, possibly in part because a higher proportion gave single answers. There was a large (statistically highly significant) increase in the proportion saying that no-one was benefiting.

**Table 10: Views of respondents on who will benefit / is benefiting from the scheme<sup>1</sup>**

Percentage of respondents (base)	Norfolk		Kent	
	Before (160)	After (158)	Before (149)	After (162)
Pedestrians / dog walkers	54	57	33	38
Cyclists	43	27	27	14
Locals	36	38	53	45
Horse riders	29	25	26	16
Children	18	12	9	5
Drivers	4	3	9	2
<b>No-one<sup>2</sup></b>	<b>6</b>	<b>17</b>	<b>7</b>	<b>30</b>
Tourists	6	13	2	3
Everyone	4	6	5	4
Council	1	1	1	0
Disabled people	1	1	1	0
Farmers	0	4	0	0
Local business	0	1	2	0
Environment/wildlife	0	1	1	0
Older people	0	0	4	2

1 Respondents could give more than one answer

2 Before-After change (Norfolk/Kent combined) statistically significant at <0.1% level ( $\chi^2$  test)

### 5.3.4 Concerns about Quiet Lanes

Respondents in the telephone, the traders' and the destination surveys were asked to assess the likely / current effect of Quiet Lanes on a variety of issues by stating the extent to which they agreed or disagreed with a set of statements. The results were analysed to give 'mean' responses by allocating a score of 1 to 5, where 5 indicated strong agreement and 1 strong disagreement, to each individual response.

The mean scores from all surveys combined are shown in Table 11. They ranged from 2.5 (slight disagreement) to 4.0 (agreement). Views were divided on most of the statements (mean score between 2.5 and 3.5) with strong opinions on both sides. In the 'before' surveys, there was slight agreement that the scheme would make non-motorised users feel safer (mean score 3.7 and 4.0 for Norfolk and Kent respectively), that it would improve the environment (3.6 / 3.9) and encourage more people to walk, cycle or ride a horse (3.7). In the 'after' surveys, people in Kent were less inclined than in Norfolk to think that traffic or speed levels were lower, or that there had been a change. People in both Kent and Norfolk were less inclined to think that non-motorised users felt safer, or that the scheme was benefiting the environment.

**Table 11: Agreement with statements about the scheme (mean scores<sup>1</sup>)**

(base)	Norfolk		Kent	
	Before (160)	After (158)	Before (149)	After (162)
There will be / is less traffic on Quiet Lanes	2.8	3.1*	3.1	2.8*
There will be / are fewer lorries	2.8	3.3*	3.3	3.1
There will be / has been no change	2.8	2.5	2.5	3.0*
Speeds will be / are lower	3.0	3.0	3.4	2.7*
Drivers will be / are more likely to use alternative routes	3.0	3.1*	3.1	2.7*
Drivers will be / are more considerate towards other road users	3.0	3.2*	3.0	3.1
The scheme will attract / has attracted people from outside the area	3.3	3.3	3.1	3.3
It will improve / has improved the environment	3.6	3.5	3.9	3.2*
Pedestrians, cyclists and horse riders will feel / feel safer	3.7	3.5*	4.0	3.3*
It will encourage / has encouraged more people to walk, cycle or ride a horse	3.7	3.7	3.7	3.4*

<sup>1</sup> 1=strongly disagree, 5=strongly agree

\* Statistically significant at the 5% level

Respondents in the telephone and destination surveys were asked to what extent they were bothered by other road users on single-track country lanes / Quiet Lanes. The results are shown in Table 12. In the 'before' surveys, half of motorised users in Norfolk and three-quarters in Kent were bothered 'very much' or 'quite a lot' by speeding vehicles. In the 'after' surveys, these proportions had fallen to one third in Norfolk and less than one-half in Kent; the change is likely to be attributable at least in part to the change in wording.

The percentages of non-motorised users (other than horse riders) bothered by motor vehicles also fell, again probably due in part to the change in wording. Very few respondents were bothered by non-motorised users. Horse riders were particularly bothered by the speed of vehicles, and also by cars, vans and cyclists.

**Table 12: Cause of nuisance from other road users (% bothered very much or quite a lot)**

	Pedestrians				Cyclists				Horse riders		Motorists			
	Norfolk		Kent		Norfolk		Kent		Norfolk <sup>1</sup>	Kent <sup>2</sup>	Norfolk		Kent	
(Base)	Before	After	Before	After	Before	After	Before	After	After	After	Before	After	Before	After
	(78)	(56)	(103)	(119)	(49)	(35)	(34)	(41)	(9)	(12)	(117)	(112)	(119)	(127)
The speed of vehicles	54	25	80	53	62	34	75	49	56	92	50	31	76	44
Cars	51	31	67	39	54	41	71	38	22	75	-	-	-	-
Vans	42	21	59	34	46	36	59	31	33	58	-	-	-	-
Lorries	43	24	49	29	50	25	52	27	33	33	44	22	57	49
Agricultural vehicles	31	11	9	10	29	28	10	8	13	8	28	17	13	15
Pedestrians	-	-	-	-	4	2	0	0	0	0	5	6	14	4
Cyclists	4	3	8	6	-	-	-	-	13	67	6	6	8	2
Horse riders	3	0	1	1	4	3	6	0	-	8	9	3	16	7

1 Includes one carriage driver

2 Includes two carriage drivers

### 5.3.5 *Frequency of use of single-track country lanes*

Respondents were asked in the telephone, the postal and the destination surveys their frequency of use of single-track country roads / Quiet Lanes by various modes (Table 13). In the 'before' and 'after' surveys, about 80% of respondents travelled by car (or van or motorcycle) at least once a week. This proportion was similar in Kent in the 'after' surveys but fell to about two-thirds in Norfolk. In Kent, about two-thirds walked along single-track country lanes / Quiet Lanes at least once a week, but the proportions in Norfolk were lower, particularly in the 'after' surveys. The proportion cycling at least once a week was unchanged at 13% in Kent, but was again lower in the 'after' surveys in Norfolk. The 'before' / 'after' differences may again have been affected by the change in wording.

The frequency of walking and cycling in the Kent non-motorised users origin-destination survey (not included in Table 13) was higher than in the other surveys, with about half the 139 walkers and one-third of the 28 cyclists using the lanes 6 or 7 days a week. About two-thirds of the 26 horse riders in the Kent non-motorised users' origin-destination survey used the lanes 6 or 7 days a week and all used them at least once a week.

Of the 8 horse riders and 1 carriage driver in the Norfolk riders' and carriage drivers' surveys who used Quiet Lanes, all but one used Quiet Lanes at least once a week, with five of the riders using them at least three days a week. Three of the riders said they now use Quiet Lanes more often than before scheme implementation.

Of the 12 horse riders and 2 carriage drivers in the Kent riders' and carriage drivers' surveys who used Quiet Lanes, nine used them at least once a week, and six at least three days a week. The carriage driver said that he now used Quiet Lanes more often than before scheme implementation, but the riders have not changed their frequency of use.

**Table 13: Frequency of use of single-track country lanes / Quiet Lanes**

Percentage of respondents  <b>(Base)</b>	By car or van				On pedal cycle				On foot			
	Norfolk		Kent		Norfolk		Kent		Norfolk		Kent	
	Before (303)	After <sup>1</sup> (277)	Before (267)	After <sup>1</sup> (306)	Before (303)	After (277)	Before (267)	After (306)	Before (303)	After (277)	Before (267)	After (306)
6-7 days a week	43	34	52	47	5	2	2	2	23	13	22	23
3-5 days a week	17	17	17	20	8	7	3	4	15	12	16	16
1-2 days a week	23	17	15	13	14	9	8	7	20	14	30	24
Once a fortnight	3	6	6	6	3	4	4	5	7	6	5	9
Once a month	4	6	3	4	6	2	8	6	6	6	6	9
Less than once a month	2	10	2	4	13	12	12	10	7	11	7	6
Never	6	6	3	4	49	56	51	62	19	30	13	12
Not stated	3	3	3	1	2	8	10	3	2	7	0	1

1 After survey by car/van/motorcycle

### 5.3.6 Motorised use of single-track country lanes / Quiet Lanes

Respondents in the telephone and postal surveys were asked to indicate the main purposes of the trips they made by motor vehicle on single-track country lanes / Quiet Lanes. The combined results are shown in Table 14, although it should be noted that respondents in the postal surveys were more likely to drive along these lanes than were those in the telephone surveys. In Norfolk, the most common journey purposes (cited by at least one-third of respondents) were shopping, visiting friends, travelling for pleasure and travelling to or from work. In Kent, they were travelling to a leisure facility, travelling for pleasure, shopping, making a school/college trip, travelling on business and visiting friends. The proportions in each category were similar or lower in the 'after' than in the 'before' survey, probably because of the change in wording e.g. the reduction in numbers travelling to or from a leisure facility might be because the route involves single-track country lanes but not Quiet Lanes. This is supported by the fact that there was no change in the proportion saying they drove along these roads for pleasure.

High proportions in Kent used the lanes for school or college trips, for going to catch a bus or train or for travelling to or from work. This supports some of the comments referring to rat-running and the need to use Quiet Lanes for overflow parking at the station in West Malling.

**Table 14: Main purposes of car/van/motorcycle trips on single-track country lanes / Quiet Lanes**

Percentage of respondents (base)	Norfolk		Kent	
	Before (168)	After (133)	Before (238)	After (260)
Shopping	54	46	41	39
Visit friends at their home	52	39	10	8
Personal business	41	31	23	16
Travel to/from work	37	28	25	19
Travel for pleasure	36	34	55	56
Visit friends elsewhere	35	27	44	40
Travel to leisure facility	28	20	60	50
School/college trip	21	12	38	41
Travel on business	20	16	37	23
To catch train or bus	20	13	29	28
Go to pub	18	16	21	18
To go to place of worship	17	15	30	22
Farming related trip	10	12	31	27
Other	9	12	7	11

When asked why they used a motor vehicle on the lanes, over three-quarters of respondents said that the lanes were their only route or that they lived on such a lane (Table 15). About one-fifth of respondents said that they used a motor vehicle on the lanes because it was the quickest, shortest or most direct route. The proportions saying they chose Quiet Lanes because they were the most scenic route were little changed.

In the 'before' surveys, only 16% of respondents in Kent said that when driving they would be more likely to choose an alternative route avoiding Quiet Lanes (Table 15), and this fell to 12% in the

‘after’ surveys, with most drivers not changing their routes. The proportion in Norfolk remained slightly higher at about 20%.

At least 40% of respondents in the ‘after’ surveys claimed that they were driving more carefully on Quiet Lanes as a result of the scheme. When asked if their driving had been affected in any other way, 12% in Norfolk and 15% in Kent said yes, most claiming that they drove more slowly, or that they were more aware of non-motorised users.

**Table 15: Motorised use of single-track country lanes / Quiet Lanes**

Percentage of respondents (base)	Norfolk		Kent	
	Before (256)	After (233)	Before (229)	After (248)
<i>Reason for using lanes<sup>1</sup></i>				
Live on single-track country lane / Quiet Lane	33	29	40	50
Only route	46	39	37	39
Shortest / most direct route	33	32	25	27
Quickest route	27	20	20	20
Most scenic / pleasant route	13	19	16	13
Safest route	3	10	2	4
Less congestion	0	8	1	2
<i>Use alternative route?</i>				
More likely to use alternative route	20	19	16	12
No difference to choice of route	74	72	76	81
Less likely to use alternative route	4	7	2	5
<i>Drive more carefully?</i>				
Drive more carefully	-	44	-	40
About the same	-	51	-	57
Not applicable	-	5	-	0

1 Respondents could give more than one answer.

### 5.3.7 Non-motorised use of single-track country lanes / Quiet Lanes

Respondents in the postal and origin-destination surveys were asked whether they were more likely to walk or cycle on Quiet Lanes than previously. (The horse riders in the Kent origin-destination survey were asked about horse riding). Overall, 17% in Norfolk and about 14% in Kent said they were now more likely to walk, cycle or ride a horse on the lanes, but the vast majority said that the scheme had made no difference to their non-motorised use of the lanes (Table 16).

**Table 16: Changes in walking / cycling on Quiet Lanes since scheme implementation**

Percentage of respondents  (base)	Postal - Norfolk	Postal - Kent	OD survey - Kent		
	Walking / cycling (111)	Walking / cycling (128)	Walking (130)	Cycling (27)	Horse riding (25)
More likely to walk / cycle on lanes	17	11	11	37	16
Less likely to walk / cycle on lanes	2	1	2	0	0
No difference	66	88	87	63	84

Respondents in the ‘after’ postal survey were asked about the effect of the scheme on their enjoyment of walking and/or cycling on Quiet Lanes (Table 17). Those in the ‘after’ telephone surveys were asked the same question separately for walking and cycling, whilst those in the ‘after’ origin-destination survey were asked about walking, cycling and horse-riding. Overall, about one-quarter of respondents said that the scheme had increased their enjoyment of walking / cycling along Quiet Lanes. The percentage of respondents saying their enjoyment had increased was rather higher in the telephone survey and the origin-destination survey than in the postal survey.

In Norfolk, 4 of the 8 respondents in the horse riders’ survey who used Quiet Lanes now enjoyed riding on them more, compared with 3 of the 11 riders in Kent. All but one of the remaining horse riders and carriage drivers said that their level of enjoyment was about the same.

**Table 17: Effect of scheme on enjoyment of walking, cycling and horse riding**

% of respondents	Postal <sup>1</sup>		Telephone <sup>1</sup>				Horse riders / carriage drivers		OD survey		
	Norfolk Walking / cycling	Kent Walking / cycling	Norfolk Walking	Cycling	Kent Walking	Cycling	Norfolk Horse riding / driving	Kent Horse riding / driving	Walking	Cycling	Horse riding
(base)	(95)	(152)	(66)	(19)	(82)	(30)	(9)	(13)	(130)	(28)	(26)
More enjoyable	28	17	41	37	32	27	44	23	28	26	31
About the same	49	56	49	58	61	66	55	69	67	74	65
Less enjoyable	8	4	0	5	6	2	0	8	6	0	4

1 Telephone surveys referred to walking and cycling separately. Postal surveys referred to 'walking or cycling'

Respondents in the horse riders' and carriage drivers' surveys were asked if other lane users were more considerate or less considerate to them as riders/carriage drivers since the scheme was implemented. They chose their responses from a five point scale running from 'a lot more considerate' to 'a lot less considerate'. The values 1 to 5 were assigned for analysis purposes, with 'a lot more considerate' scored as 1, 'about the same' scored as 3, and 'a lot less considerate' scored as 5 (Table 18). All rider mean ratings were 3.0 or less, suggesting that, on average, riders rated all other users as more considerate since the scheme was implemented.

**Table 18: Consideration of other road users towards horse riders and carriage drivers after scheme implementation**

Mean consideration rating (base)	Norfolk (9)	Kent (12)
Car drivers	2.7	2.9
Van drivers	2.8	2.9
Lorry drivers	2.9	2.8
Agricultural vehicle drivers	2.4	2.5
Motorcyclists	2.9	2.8
Cyclists	2.9	2.8
Pedestrians/dog walkers	3.0	2.7

(1=a lot more considerate; 3=about the same; 5=a lot less considerate)

Those who thought other users were more considerate or less considerate were asked to state how. Responses indicated that the scheme had had an impact on some users who had modified their behaviour, but had made no difference to others. Those who lived on or near the lanes were thought to be more considerate than those from elsewhere. Some car drivers, rat-running commuters and young drivers were said to cause problems e.g. not anticipating horse riders.

The 18 respondents in Norfolk and 10 in Kent in the 'after' telephone survey who had children under 16 were asked whether they allowed their children to walk or cycle on Quiet Lanes. Ten in Norfolk and 7 in Kent said they did, although two were not happy about it. The others said their children were too young or that they were worried about traffic and/or personal safety.

### 5.3.8 Destination surveys

Respondents in the destination surveys were asked how far they had travelled and their mode. About half or more of car drivers estimated that they had travelled less than 3 miles and 60% or more that they had walked less than 1 mile (Table 19). Only one-third of motorised respondents had travelled along a Quiet Lane to reach their destination. Of these, at least two-fifths said that it was the only route and one-fifth that they lived on a Quiet Lane. Others said it was their quickest or shortest route.

**Table 19: Mode and distance of travel**

Distance (miles) (Base)	Before				After			
	Norfolk		Kent		Norfolk		Kent	
	Car etc (16)	Walk (10)	Car etc <sup>1</sup> (18)	Walk (10)	Car etc (15)	Walk (11)	Car etc <sup>1</sup> (24)	Walk (16)
< 0.5	7	60	0	50	14	100	8	56
0.5 to 0.9	7	0	24	10	14	0	17	25
1-1.9	27	10	12	0	37	0	21	6
2-2.9	7	10	18	0	7	0	25	0
3-4.9	13	0	18	20	20	0	17	0
5-9.9	13	0	12	0	0	0	8	0
10-19.9	13	0	12	0	0	0	0	0
≥20	13	0	0	0	0	0	4	0
Not stated	14	20	0	0	0	0	0	0

1 Car (as driver or passenger) / van / motorcycle / moped

### 5.3.9 Traders' surveys

Around half of respondents in the traders' surveys said that their customers mostly came from the local area. All said their customers travelled by car or van; up to half also said some customers travelled on foot.

Very few of the traders thought the scheme had affected trade. One in Norfolk and four in Kent thought trade had increased since scheme implementation but the reasons were only partly related to Quiet Lanes. In Kent, one referred to a busy bridleway linking with the scheme that brought in customers and another to more people using Quiet Lanes; a butcher thought the increase was a result of there being fewer such shops around. In Norfolk two respondents referred to loss of trade since the main road was changed from a B to a C road.

The estate agents considered that house prices had been unaffected. They said that buyers tended to come from outside the area and were therefore unaware of the scheme. The buyers had usually come from a busier area. It was not thought that local buyers considered Quiet Lanes to be a factor influencing their purchase of a property.

### 5.3.10 Origin-destination surveys of non-motorised users of Kent Quiet Lanes

In the OD surveys of non-motorised users in Kent, respondents were asked the main purpose or purposes of their journey. As shown in Table 20, the main journey purposes in both the 'before' and 'after' surveys were for pleasure, for exercise and to exercise the dog. One of the survey sites was close to a livery stable and some of the horse 'riders' were leading their horses.

In the 'after' survey, those on foot travelled 3.5 miles on average, although there was wide variation in distances, with most travelling less than half a mile. The cyclists travelled an average of 15 miles, (one was making a round trip of 80 miles). Those on horseback travelled an average of 5.2 miles.

**Table 20: Main purpose of walking/cycling/horse riding use of Quiet Lanes**

Percentage of respondents (Base)	Before (129)	After (204)
Pleasure / exercise	60	52
Walking the dog	31	26
Business	5	9
Shopping	4	5
Exercising / leading / collecting horses	-	4
Personal business	0	1
Visiting friends at their home	4	2
Going to the pub	14	4
Commuting	2	1
Education	0	1
Other	8	5

### 5.3.11 Signing

Respondents in the second ‘after’ telephone survey were asked about the Quiet Lane signs and the changes in direction signing. Three-quarters in Norfolk and two-thirds in Kent approved of the Quiet Lane signs (Table 21). They said that the signs made people more aware of Quiet Lanes and slowed them down, and that the design of the signs was in keeping with the area. However, a few respondents said that they should be more conspicuous, as they cannot easily be seen by drivers. It was also pointed out that they had faded.

Those who disapproved of the Quiet Lane signs said that they were too inconspicuous, false/tacky and not in keeping with the countryside, a waste of money and ineffective. Those who were unsure made similar comments.

About one-third of respondents in Norfolk and one-quarter in Kent were aware of and approved of the changes in direction signing. Those who did said that they blend in with the surroundings, are more appropriate than metal signs, divert traffic away onto more suitable routes and help drivers from outside the area.

Examples of negative comments were that the signs were misleading, too small to read, were ignored and not very noticeable.

**Table 21: Signing**

% of respondents (Base)	Quiet Lane signs		Changes in direction signing	
	Norfolk (98)	Kent (100)	Norfolk (100)	Kent (100)
Approve	78	64	34	26
Do not approve	8	21	20	14
Don't know/no response	12	15	45	59

### 5.3.12 Other measures related to scheme

Respondents in the second ‘after’ telephone survey were asked whether they had noticed the ‘false cattle grid’ (rumble strips) on Comp Lane. Of the 43% who were aware of them, 60% were in favour (Table 22).

Those who thought that the ‘false cattle grids’ were a good idea considered that they made drivers more aware of their speed and the situation in which they were driving, though there were some reservations. One respondent, for example, thought the grid should be longer and another considered that a noisy device was inappropriate on a ‘Quiet’ Lane.

Those who thought that the false cattle grids were not a good idea mainly said that they made no difference / were ineffective and a waste of money.

**Table 22: Opinions of other measures**

Percentage of respondents (Base)	False cattle grids in Kent <sup>1</sup> (100)	Village measures in Norfolk (100)
Approve	26	67
Do not approve	19	5
Don't know/no response	55	28

1 rumble strips

Respondents in Norfolk were asked whether they had noticed the village traffic calming measures in the Quiet Lanes area, which comprised changes in coloured surfacing and new signs at the village entries. Of the two-thirds who were aware of the changes, over 90% thought the changes were a good idea (Table 22).

### 5.3.13 General comments

Many of those who made positive comments about the scheme had reservations, for example, that there was little perceived change in traffic conditions. There were calls for a lower speed limit, improved publicity/enforcement, a ban on HGVs, traffic calming (e.g. road humps), priority for non-motorised users, diversion of unnecessary traffic away from the network and more prominent signing. Quiet Lane signs were not thought to be understood by drivers from outside the area.

Some respondents in Kent perceived an increase in the speed and volume of traffic over the years that the scheme had done little to address. Some of this was thought to be a consequence of the extensive development in the area and the lack of public transport.

A number of people thought that the scheme was a waste of money that, for example, could be better spent on maintenance. A few people were concerned about the dumping of rubbish (including abandoned cars), seen as a consequence of reduced traffic on the network.

There remained concerns about perceived safety e.g. drivers still travelling too fast.

## 5.4 Video surveys

Driver's eye view recordings were made of the networks before and after scheme implementation, to record the physical characteristics of the lanes in a database. The characteristics comprised the presence of housing, estimated road width, presence of verge and hedge, bendiness and hilliness, the latter two items on a scale of 1-4. In addition, the runs were repeated and counts made of both oncoming and overtaken road users - cars, other vehicles, pedestrians, cyclists and horse-riders. Because of the extent of the networks, resources permitted only three runs, on a Sunday, in a weekday peak period and in a weekday off-peak period. The surveys were undertaken in Autumn in Kent and

mid-February in Norfolk. There was little difference between the ‘before’ and ‘after’ runs in the numbers of vehicles encountered (Table 23). Overall, numbers of non-motorised users encountered on the ‘after’ runs were slightly higher in Kent (though one run was in wet weather) but lower in Norfolk, where again the weather was poor.

**Table 23: Vehicles and non-motorised users encountered during video surveys**

	Norfolk		Kent	
	Before	After	Before	After
<b>All vehicles</b>	54	53	50	56
Pedestrians	67	45	40	62
Cyclists	6	4	5	5
Horse-riders	5	4	2	1
<b>All non-motorised users</b>	78	53	47	68

## 6 Accidents on Quiet Lanes

Reported injury accidents on Quiet Lanes were obtained from TRL’s copy of the Stats19 database for the period from 1995 to 2002 inclusive.

### 6.1 Norfolk

Table 24 shows that on the 59km of Quiet Lanes in Norfolk there were 12 accidents (2.3 per year on average) in the 5.2-year ‘before’ period from 1 January 1995 to 28 February 2000. Four of the accidents were on Quiet Lanes within villages and could therefore be considered as not being Quiet Lane accidents.

Five of the accidents were on Quiet Lanes, four were in villages on roads adjoining Quiet Lanes and three were at junctions on the edge of the network, the latter each involving a vehicle turning out of a Quiet Lane. One accident involved a cyclist at a private drive. Three accidents were head-on collisions, of which 2 were on bends.

During the ‘after’ period, there were 8 accidents in 2.9 years (2.8 per year on average), of which 5 were on Quiet Lanes away from villages. Two were head-on accidents on bends and 2 were at junctions.

There has therefore been little change since scheme implementation. The numbers are too low for the changes to be statistically significant.

**Table 24: Accidents on Quiet Lanes**

	Norfolk <sup>1</sup>				Kent			
	Before (5.2 years)		After (2.9 years)		Before (5.6 years)		After (1.6 years <sup>2</sup> )	
	No.	Acc’s per yr	No.	Acc’s per yr	No.	Acc’s per yr	No.	Acc’s per yr
At junction <sup>1</sup>	5	1.0	4	1.4	8	1.5	1	0.7
Not at junction	7	1.4	4	1.5	8	1.5	1	0.7
Total	12	2.3	8	2.8	16	2.9	2	1.3

1 Numbers include 4 accidents in villages

2 Interim period of 0.9 years excluded

## 6.2 Kent

Table 24 shows that on the 40km of Quiet Lanes in Kent there were 16 accidents (2.9 per year on average) in the 5.6-year 'before' period from 1 January 1995 to 31 July 2000. Four of the accidents involved non-motorised users (1 pedestrian, who was walking with his back to the traffic, and 3 cyclists). Two cyclists were involved in head-on collisions on a bend; the other was hit by a car turning left into a private drive. Eight of the accidents occurred at junctions.

The period, between 1 August 2000 and 30 May 2001 (0.9 year) has been excluded from Table 24 as being interim between the implementation of the erection of the signs but before full completion and the official launch of the scheme. Three accidents were reported: one head-on collision and one involving a single vehicle (both on bends), and one emerging from a Quiet Lane.

During the 'after' period, there were 4 accidents in 1.6 years (2.5 per year on average). Two were head-on accidents on bends and 2 were at junctions, the latter involving right turns out of, and into, a Quiet Lane.

Overall, there has been little change since scheme implementation. The numbers are too low (and the 'after' period too short) for the changes to be statistically significant. Six accidents (3 before implementation, 1 during the interim period and 2 after implementation) involved manoeuvres entering/leaving the B2016. Five were at the junction with Comp Lane.

## 7 Other Quiet Lanes schemes

### 7.1 Existing proposals for Quiet Lane schemes

A number of Local Authorities with rural areas have included Quiet Lanes in their Local Transport Plan (2001/2 to 2005/6). The Campaign to Protect Rural England (CPRE) suggests the total number of Local Authorities is 31 (CPRE, 2003). The general aim cited is to make the designated Quiet Lanes more attractive to non-motorised users by reducing levels of traffic and speed and to re-direct non-essential traffic away from the network. It is interesting to note that this general aim is not entirely consistent with the general definition. Most schemes seem to be in the planning stage and have not gone ahead even if originally scheduled to do so by 2003. A summary of the schemes for which details are available is given in Table 25.

In Derbyshire, a scheme near **Youlgreave** in the Peak District has been implemented as an element of the South Pennines Integrated Transport Study (SPITS). Six more schemes are planned.

A scheme is planned in **Corfe Mullen, Dorset**, where the main issue is the use of the lanes for the school run, with over 90% of traffic between 8 and 9am being to or from the local school.

Gloucestershire is proposing in the **Cotswold Water Park** to close little used roads and make others access only.

In Hertfordshire, a very limited pilot scheme, apparently on one road only, has been implemented in **Ayot St Peter**. It includes widened footpaths and an advisory 20mph speed limit. If successful, it will be extended to other minor rural road across the county.

In Hertfordshire and Buckinghamshire, the **Central Chilterns Traffic Management Project**, covering around 10% of the **Chilterns AONB**, includes two proposed Quiet Lane networks, north and west of Chesham, towards Great Missenden and Tring. The traffic management project comprises the reduction of speed limits, development of new traffic calming measures, re-thinking of signing, safer routes to school, encouragement of cycling / walking and improvement of links to public transport. There is some concern from the Countryside Agency and from DfT that these networks include roads that are too busy for the concept.

In the Isle of Wight, a small pilot scheme has been introduced in Adgestone near **Brading**.

The **Forest of Bowland** is mainly in Lancashire but also encompasses the North Yorkshire AONB. 92% of visitors to the area are car-borne. Two networks are planned, centred on Chipping and Slaidburn, incorporating 'greenways' and bridleways as well as Quiet Lanes.

In Norfolk, a second scheme is planned within the Thetford-Attleborough-Diss triangle in the southern part of the county. There will be substantially less consultation, publicity and monitoring than for the pilot project, and there will be only limited changes to the redirection of through traffic.

Oxfordshire has launched the *CountryWays* Traffic Management project, similar in concept to that in the Chesham area mentioned above. A scheme incorporating Quiet Lanes is planned for the area south west of Nettlebed in the southern part of the Chilterns AONB and another is proposed for the area around Uffington in the Vale of White Horse. Oxfordshire hopes to extend the *CountryWays* concept to all rural areas of the county in time.

Shropshire has developed small pilot projects near **Shifnal, Wem and Woore** in the north and east of the county. Schemes near Oswestry, Aston-Lee Brockhurst, Stapleton/Annscroft/Pulverbatch area (Worfield) and various sites in south Shropshire are planned for 2003/4.

Schemes including Quiet Lanes have been implemented in the **Quantocks AONB** and in the **Iminster** area of Somerset. There is however a problem with providing safe crossings at roads carrying fast moving / heavy traffic, which would be costly to install and cause visual intrusion in a rural environment. Thus further implementation of Quiet Lanes is likely to be confined to areas where the road network is already relatively quiet and conflict with busy roads will not be an issue.

Suffolk and Essex plan to introduce a pilot scheme at **Dedham Vale** (on the border between the two counties) that targets minor roads that could be closed to motor vehicles.

Wiltshire recently launched Phase 1 of their scheme in the **Vale of Pewsey**, part of the North Wessex Downs Area of Outstanding Natural Beauty (AONB).

Surrey has instigated pilot measures on Ranmore Common near the Mole Gap within the **Surrey Hills AONB**. These involve a cattle grid, an aggregate centre strip and passing places. The area includes National Trust property and is under heavy visitor pressure.

Worcestershire has planned a pilot scheme in the parish of **Inkberrow**. This is to be a 'best practice' example on lanes already used by walkers, cyclists and horse riders.

In Wales, Quiet Lanes will be included in the Cardiff-Aberfan-Brecon (Taff Valley) route of the planned National Cycle Network.

In Northern Ireland, the results of the Kent and Norfolk pilots and subsequent guidance on Quiet Lane designation will be considered by the Department for Regional Development to assess their potential application.

In addition, according to CPRE, the following Local Authorities have included Quiet Lanes in their current LTP (2001 to 2006): Barnsley, Bath, Blackburn, Bedfordshire, Cheshire, Cornwall, County Durham, Cumbria (traffic calming of some country roads to create Quiet Lanes), Darlington, Devon, East Riding, East Sussex (Pevensey Levels), Gateshead, Halton, Lincoln, Medway, Milton Keynes (pilot scheme at Tyringham / Filgrave), Nottinghamshire, Peterborough, Poole, Rutland, Sheffield, Solihull, South Tyneside, Staffordshire, Thurrock, West Midlands, West Sussex, Wokingham, Worcestershire (3 pilots), York.

**Table 25: Details of other Quiet Lanes schemes**

Local authority	Area	Status in August 2003	Speed limit	Comments
Derbyshire	Youlgreave	Implemented		Element of South Pennines Integrated Transport Strategy (SPITS). Six more schemes planned.
Dorset	Corfe Mullen	Planned		School run traffic a problem; will maintain essential access.
Gloucestershire	Cotswold Water Park	Planned		Close little used roads to motorised traffic; some roads access only.
Herts / Bucks	Chilterns AONB (north and west of Chesham)	Planned	Possible 20mph	Part of Central Chilterns Traffic Management Project. QLs to feature false cattle grids; variant on Quiet Lane sign sought.
Hertfordshire	Ayot St Peter	Implemented	20mph	Pilot scheme on one road only.
Isle of Wight	Adgestone, near Brading	Implemented		Two roads only. Mock cattle grids.
Lancashire	Forest of Bowland AONB	Planned	None	Mainly aimed at locals, will link with greenways and bridleways. Over 90% of visitors are car-borne. QL signs, changes to direction signing to discourage non-essential traffic.
Norfolk	Within Thetford-Attleborough-Diss triangle	Planned	None	Second scheme in south Norfolk. Substantially less consultation, publicity and monitoring than the pilot project; only limited changes to the re-direction of through traffic.
Oxfordshire	Chilterns AONB (southern area)	Planned	None	Part of <i>CountryWays</i> Traffic Management Project. Another <i>CountryWays</i> scheme in Uffington area (Vale of White Horse) proposed.
Shropshire	3 pilots in Telford & Wrekin Council and North Shropshire District Council areas	Implemented	20mph	Initial pilot: Barkers Green, Wem (2001) followed by The Wyke (near Shifnal) and Gravenhunger Lane, Woore (2002). Schemes near Oswestry, Aston-Lee Brockhurst, Stapleton/Annscroft/Pulverbatch area (Worfield) and various sites in south Shropshire planned for 2003/4.
Somerset	Quantocks AONB and Ilminster area	Implemented		Problem with providing safe crossings at roads where traffic is fast moving or heavy. Likely to confine further implementation of QLs to areas where road network already relatively quiet and conflict with busy roads will not be an issue.
Suffolk / Essex	Dedham Vale	Planned		Targets are minor roads that could be closed to motor vehicles.
Surrey	Surrey Hills AONB near Mole Gap	Planned	40mph	Tourist area, will link local communities, station, National Trust properties. Cattle grids, aggregate centre strip, passing places.
Wiltshire	Vale of Pewsey	Implemented	None	Originated out of HGV access management. Will redirect through traffic.
Worcestershire	Inkberrow	Planned		Pilot as 'best practice' example on lanes already used by walkers, cyclists and horse riders.

## 7.2 Potential for Quiet Lanes schemes

On the basis of the current level of interest in Quiet Lanes, it seems likely that there is potential for around 50 schemes. Some schemes apply to only one road and others are too busy to be Quiet Lanes. Some Local Authorities seem to have underestimated the level of commitment and funding involved and therefore schemes have been very slow to get off the ground. At this stage, it is difficult to determine how many will actually go ahead as Local Authorities will want to be sure that they are getting value for money. Most seem likely to undertake a limited pilot study before committing themselves to more widespread measures. Unless the pilot schemes are seen as highly successful, Local Authorities will be unlikely to start further schemes. Pressure for Quiet Lanes schemes tends to come from the tourist areas, or those with a rat-running problem, but many of the roads concerned will be too heavily trafficked and/or will have too many visitors for the 'hearts and minds' idea to work well.

## 7.3 Potential national benefits

From the present results, the potential benefits from Quiet Lanes schemes are:

- Community spirit engendered
- Maintenance of the status quo with regard to the amount and speed of traffic
- Increased enjoyment of walking and cycling on Quiet Lanes
- Drivers taking more care
- Greater consideration shown by drivers

However, to put these results in context, Quiet Lanes have only small numbers of non-motorised users who mostly use the lanes for recreation and for walking the dog. Thus although any increase in walking has health benefits, these benefits are unlikely to be widespread. The lanes appear to be little used by unaccompanied children, who might particularly benefit from increased exercise, but are in any case unsuitable for play because of the presence of traffic. There was no evidence of any increase in utility walking or cycling.

It is unlikely that the introduction of Quiet Lanes networks will affect safety, because the low flows and low speeds mean that these lanes already have very few accidents. It is unlikely that any change will be statistically significant, although *perceived* safety may change.

There is some evidence of apathy towards Quiet Lane schemes, which may make them unsuccessful. Where potential Quiet Lanes are used by commuters or on the school run, alternatives should be sought, although they may still be appropriate for use by non-motorised users during the remainder of the day.

In order to reap benefits at a national level, the Quiet Lanes sign will need to be widely recognised and if possible become part of the Highway Code.

## 8 Essential components of Quiet Lane schemes

Local Authorities were given powers under the Transport Act 2000 (and equivalent Acts in Scotland and Northern Ireland) to designate minor rural roads as Quiet Lanes, which could be subject to speed or use orders.

According to the Countryside Agency, key elements of the Quiet Lanes concept are:

- Local community involvement which seeks to change user behaviour
- An area wide direction signing strategy to re-route traffic
- Quiet Lane signing

The Countryside Agency suggests using the PACE process:

<b>Plan</b>	set objectives, define area, identify partners, assess demand
<b>Activate</b>	develop a strategy, engage community, signs audit, assess potential network, financial estimates
<b>Check</b>	objectives, community participation process, set targets
<b>Enable</b>	implementation, monitoring

The planning should broadly comprise the design of the network:

- Identification of very narrow lanes with low flow and speed that form, or could form, a network for non-motorised users (NMUs). The network can include public rights of way.
- Lanes should already be pleasant to walk, cycle or ride a horse. (No set limits on flows, speeds or road width, but generally less than 5m wide, less than 1000 vpd and 85<sup>th</sup> percentile speeds less than 35mph). If not, additional traffic calming measures will be needed.
- Any linking roads that are too busy to be designated as Quiet Lanes should have, or have the potential for, suitable footways that can be used by all NMUs. These links should be short.
- If designated lanes are used as rat-runs, it should be feasible to divert traffic onto a suitable alternative route, in which case measures may be necessary to encourage motorists to switch
- Designation of lanes should fit into local route hierarchy
- Suitable diversion routes should exist

Consultation with the local community should lead to a general consensus on the lanes to be designated. Local businesses will need to be part of the process. It will be necessary to ensure that any points where the network crosses other roads can be modified to complete the network. A major publicity campaign will be required to raise awareness.

Limited monitoring of the schemes should be undertaken:

- Some strategic speed flow measurements will be necessary during the planning stage
- Limited NMu counts should be undertaken, but these are likely to be very low with any changes not statistically significant
- Before and after questionnaire surveys of at least 100 local residents

## 9 Summary and conclusions

### 9.1 Summary

The Norfolk Quiet Lane Pilot Scheme was implemented in April 2000 and the Kent scheme between March 2000 and May 2001, with the official launch in July 2001. Monitoring of the scheme was undertaken by TRL and the County Councils, supported by the Countryside Agency and DfT, over the period from 1998 to 2003. Surveys comprised automatic speed/flow measurements, manual classified counts, video surveys, focus groups and a number of questionnaire surveys to assess attitudes towards the scheme.

The main results are as follows:

- No change or a small decrease in measured traffic on Quiet Lanes  
 Vehicle flows on the Quiet Lanes network were very low in the 'before' survey (two-way flow between 40 and 700 vehicles per day). They were little changed in the

‘after’ surveys. By comparison, there have been small increases on the control roads in Norfolk and substantial increases on some control roads in Kent. In real terms, vehicle flows had decreased in a few cases.

- No significant change in measured vehicle speeds on Quiet Lanes

Vehicle speeds on the Quiet Lanes network (subject to the national speed limit) were also relatively low in the ‘before’ survey (85<sup>th</sup> percentile speed was about 35mph) and were little changed in the ‘after’ surveys. There were concerns that some drivers, often younger people, were still speeding.
- Overall numbers of non-motorised users remain low

Even though numbers of observed pedestrians increased substantially in Kent, they remain very low in total. There was little change in the numbers observed in Norfolk. The totals were too small to have any significant impact on vehicle speed.
- Sustained strong support for the scheme but about one-third in Norfolk and half in Kent say it is not working in practice

Attitudinal surveys show sustained strong support for the scheme in principle with at least three-quarters in favour of it. About one-third in the ‘before’ surveys thought that the idea would work in practice, but following scheme implementation attitudes in Kent hardened somewhat with about half in the most recent survey thinking that the scheme was not working.
- Small declared increase in non-motorised use

Only a minority said they had increased their walking, cycling or horse riding on Quiet Lanes, with the vast majority saying they had not changed. About one-quarter found these activities more enjoyable.
- Small declared decrease in motorised use

Only a minority in the ‘before’ surveys said they would be more likely when driving to choose an alternative route to Quiet Lanes. In Kent, the proportion fell in the ‘after’ surveys. The reasons for continuing to drive along Quiet Lanes were that they were the shortest, quickest, most direct or the only route.
- Declared increase in careful driving

Almost half the respondents reported that they now drive more carefully.
- There remain some concerns over safety

A number of respondents reported concerns about speeding drivers and traffic levels. However, some non-motorised users said that the lanes felt safer. Half of the small number of respondents with children under 16 reported that they allowed their children to walk or cycles on the lanes. Actual numbers of accidents on Quiet Lanes were very small before scheme implementation and are (statistically) unchanged afterwards.
- There remain perceived problems with Quiet Lanes

Perceived problems were the speed and volume of traffic, the lack of viable alternative routes for local people and rat-running e.g. by commuters. Traffic levels are perceived to have increased following extensive local development. There is concern that the Quiet Lane signs are too small and are not always well understood either by motorists or non-motorised users, particularly visitors to the area. There remain concerns about maintenance of Quiet Lanes. A few respondents said that the network was fragmented from the non-motorised users’ point of view.

Other schemes have been slow to start. This has been due to misconceptions about the nature of Quiet lanes and the resources required for the necessary consultation within the community. Involving the local community from day one is an essential, but resource intensive part of the project. Changing hearts and minds can only be possible if the local population are behind the scheme.

## 9.2 Conclusions

Encouragingly, vehicle flows on Quiet Lanes have remained broadly unchanged, whilst there have been large increases on some control roads in Kent. It is not clear to what extent the Quiet Lanes scheme has contributed to the increase on Kent control roads, however, in view of the extensive road works in the area since its launch. Since the control roads in question were higher quality, it is not clear whether the traffic concerned, probably generated in part by the extensive development in the local area, might have used these roads in preference to Quiet Lanes even in the absence of the scheme.

Expectations that there would be reductions in vehicle speeds were unrealistic, largely because the lanes in the pilot areas are naturally traffic calmed, although it was reported that some people continue to drive too fast, considering the lack of forward visibility. This lack of measured change in speeds should be viewed in the light of the small numbers of non-motorised users. Drivers on Quiet Lanes encounter few non-motorised road users, so have no particular reason to drive more *slowly*, but may in fact drive more *carefully*. Some of those interviewed commented that they now drive more carefully on Quiet Lanes in case they met non-motorised users. This is more likely to be the case outside peak periods, when drivers may be in less of a hurry.

Although there have been large observed increases in pedestrian use in Kent, numbers remain low and there has been no significant change in cycle use. Longer distances and lack of street lighting in rural areas make commuting or shopping by pedal cycle or on foot impractical for most. The main purposes of non-motorised use of the lanes were for leisure e.g. walking, cycling or riding a horse for pleasure / exercise and walking the dog.

The majority of local people are aware of the schemes and there is sustained support for them, together with some declared changes in behaviour. However, about half of those interviewed in Kent and one-third in Norfolk did not think the schemes were working in practice. A degree of apathy towards Quiet Lanes as a topic of local interest in Kent was detected.

Overall, the Quiet Lanes pilot schemes should be viewed as a partial success. They have achieved some of their aims, but not the *expectations* of stakeholders. The new definition of Quiet Lanes as preserving the status quo fits the picture well, but renewed efforts will be required to convince the local population that the scheme is a success. Publicity and continued review will be needed in the pilot areas.

In Kent, some revision of the network to exclude roads used for commuter parking and rat-running, more draconian traffic calming measures on wider roads such as Comp Lane and further improvements to the crossing points on the B2016 would contribute to this. Because of the rat-running by commuters and the rapid increase in the local population, it is particularly important that publicity there is continued at regular intervals.

It is not clear to what extent the results can be translated to other areas, since various aspects are unique to the pilot areas and to a pilot scheme:

- Extensive development close to the Kent network leading to a large increase in local traffic
- Kent area close to main roads, motorways (M25, M26, M20) and centres of population e.g. Tonbridge, West Malling and Sevenoaks, and to London
  - Readily accessible by car
  - Accessible to large number of non-motorised users

- Local Kent population has high proportion of commuters (e.g. to London), whereas Norfolk has a stable population with a high proportion of retired people
- Propensity of some lanes for rat-running, particularly in Kent
- Some ‘through’ traffic in Kent
- Day-trippers in Kent, mixture of day-trippers and tourists staying in the area in Norfolk
- As a pilot scheme, consultation was extensive and there was a particularly dedicated team in Norfolk
- Following widespread publicity, awareness of the scheme was high
- Community spirit
- Increase co-operation within county councils.

The idea of Quiet Lanes has caught on and a number of local authorities are in the process of setting up similar schemes. Some schemes have been misconceived, however, since the existing roads are too busy or would require traffic calming measures to lower speeds. Others are intending to impose speed limits. Finally there are numerous suggestions from the general public that one particular road needs to be made a Quiet Lane.

In spite of the associated increase in costs and intrusiveness, the Quiet Lanes sign should probably be increased in size and height, to ensure it is clearly visible to car drivers. This may also help to minimise the problems of foliage obscuring the signs. It needs to be nationally recognised in order for non-local people to comply with it.

New schemes need to be well thought out and supported by a large proportion of the local population. They are about promoting community spirit as much as traffic calming. Local businesses who use the lanes must be persuaded to minimise this use as far as possible. They should not be used where traffic flow and/or speeds are already a problem.

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## **References**

ANNUAL ABSTRACT OF STATISTICS (2000). The Stationery Office, London.

CAMPAIGN TO PROTECT RURAL ENGLAND (2003). CPRE’s guide to Quiet Lanes.

THE CHILDREN’S SOCIETY (1997). Same scenery, different lifestyle. The Children’s Society, London.

GARDNER G and S GRAY (1998). A preliminary review of rural cycling. TRL Report 310. TRL Limited, Crowthorne.

KENNEDY J V and A H WHEELER (2001). Kent Quiet Lanes Scheme: ‘Before’ monitoring. TRL Report 503. TRL Limited, Crowthorne.

KENNEDY J V, WHEELER A H and C INWOOD (2003A). Norfolk Quiet Lane Scheme: final report. PR SE/761/03. TRL Limited, Crowthorne.

KENNEDY J V, WHEELER A H and C INWOOD (2003B). Kent Quiet Lane Scheme: final report. PR SE/778/03. TRL Limited, Crowthorne.

KENNEDY Janet and Linda CHINN (2001). Quiet Lanes Study: Status Report 1. TRL Unpublished Report PR/SE/359/01. TRL Limited, Crowthorne.

KENT COUNTY COUNCIL (2002). Quiet Lanes around the Greensand Ridge - a demonstration project in Kent. Technical Report: March 2002.

NORFOLK COUNTY COUNCIL (2000). Norfolk Quiet Lanes Pilot Project – Public Engagement and Scheme Implementation. Technical Report 1. Department of Planning and Transportation, August 2000.

WHEELER A, KENNEDY J and CHINN L (2002). Kent Quiet Lanes Scheme: Second year of ‘after’ monitoring. TRL Unpublished Report PR/SE/572/2002. TRL Limited, Crowthorne.