

Wealden District Council Proposed Submission Core Strategy

Habitats Assessment Regulations

The assessment of the increase in traffic resulting from the Wealden District Proposed Submission Core Strategy on The Ashdown Forest Special Area of Conservation and The Lewes Downs Special Area of Conservation

February 2011

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1 Introduction

1.1 Screening under the Habitat Assessment Regulations for the Wealden Core Strategy identified that, on a precautionary basis, the increased number of vehicles resulting from additional housing and employment provision, as stipulated in the Core Strategy, may have a likely significant effect on the vegetation and soil constituting the habitat designated as a Special Area of Conservation (SAC) at Ashdown Forest and Lewes Downs.

1.2 This paper sets out the methodology and results regarding the traffic generated by the Core Strategy and whether this would have a likely significant effect on Ashdown Forest and Lewes Downs SAC in accordance with the Design Manual for Roads and Bridges.

2 Background

Sites

2.1 The European sites within the scope of the assessment are:

- Ashdown Forest SAC: European dry heaths and North Atlantic wet heaths; and
- Lewes Downs SAC: semi-natural dry grasslands and scrubland facies on calcareous substrates.

Air pollution types

2.2 The main pollutant effects of interest are acid deposition and eutrophication by nitrogen deposition. The following descriptions are taken from the Draft Habitat Regulations Assessment for Wealden District Core Strategy dated October 2010.

2.3 *Acid deposition:* caused by oxides of nitrogen (NO_x) (or sulphur dioxide, SO₂) reacting with rain/ cloudwater to form nitric (or sulphuric) acid, and is caused primarily by energy generation, as well as road traffic and industrial combustion. Both wet and dry acid deposition have been implicated in the damage and destruction of vegetation (heather, mosses, liverworts and lichens are particularly susceptible to cell membrane damage due to excessive pollutant levels) and in the degradation of soils and watercourses (including acidification and reduced microbial activity).

2.4 *Eutrophication by nitrogen deposition:* consists of the input of nitrogen from NO_x (and sometimes ammonia, NH₃) emissions by deposition, and is caused primarily by road traffic, as well as energy generation, industrial combustion and agricultural practices. Nitrogen deposition can cause direct damage to heather, mosses, liverworts and lichens, as well as other plant species, because of their sensitivity to additional atmospheric nitrogen inputs, whilst deposition can also lead to long term compositional changes in vegetation and reduced diversity.

Furthermore, while plants are able to detoxify and assimilate low exposure to *atmospheric concentrations of NO_x*, high levels of uptake can lead to detrimental impacts including:

- Inhibition of pigment biosynthesis, leading to reduced rates of photosynthesis;
- Water soaking as NO₂ molecules attach to lipids in membranes, causing plasmolysis (removal of water) and eventually necrosis;
- Inhibition of lipid biosynthesis, leading to reduced rates of regeneration and growth;
- Injury to mitochondria and plastids, essential to internal processing of energy and proteins;
- Decrease in stomatal conductance of air and water vapour; and
- Inhibition of CO₂ fixation (at least under low light levels).

2.5 Nitrogen plays an important role in all three impact mechanisms. Sulphur dioxide emissions, which have decreased significantly in the UK over the last two to three decades through tighter regulation, are generally associated with centralised power generation, while ammonia emissions are largely related to agricultural sources and some industrial processes. The Core Strategy does not promote new energy generation facilities or significant changes to District's agricultural economy.

2.6 Over half of all emissions of nitrogen and nitrogen oxides in the UK are the result of vehicle exhausts, with an estimated 92% of those associated with residential development being contributed by road traffic (Dore *et al*, 2005). Nitrogen emissions from traffic generated by residential and commercial developments will therefore be the focus of this part of the assessment.

Guidance

2.7 The Design Manual for Roads and Bridges¹ provides guidance on the assessment of the impact that road projects may have on local air quality. Specific provision is made in relation to sites designated pursuant to the Habitats Directive. In this instance the assessment is in relation to existing, as opposed to new roads, however the guidance clarifies that "*where appropriate, the advice may be applied to existing roads.*" In accordance with this guidance, and with agreement by Natural England², the Habitat Regulations Assessment will examine whether there is a likely significant effect using the DMRB guidance.

2.8 DMRB provides a scoping assessment for local air quality and initially requires the identification of roads which are likely to be affected by the proposals. The criteria for defining an **affected road** are:

- road alignment will change by 5 metres or more; or

¹ HA 207/07

² Minutes of meeting between Natural England, Mid Sussex District Council and Wealden District Council 16 September 2010

- daily traffic flows will change by 1000 Annual Average Daily Traffic (AADT) or more; or
- Heavy Duty Vehicle (HDV) flows will change by 200 AADT or more; or
- Daily average speed will change by 10km/hr or more; or
- Peak hour speed will change by 20km/hr or more.

2.9 The scoping assessment then requires that nature conservation sites within 200 metres of the road and their characteristics be identified (including SACs and SPAs). The guidance then clarifies that if none of the roads in the network meet the traffic/ alignment criteria (that is they are not affected roads) **or** there are no relevant designated sites near the **affected roads**, then the impact of the scheme can be considered neutral in terms of local air quality and no further work is needed.

Study Area

2.10 There are a number of roads directly linking Wealden to other parts of the South East which transect the SAC of the Ashdown Forest. A number of roads are within the 200 metres of the SAC.

2.11 The routes across the Forest, and bordering the SAC, include parts of:

St Johns Road, Crowborough
 Mardens Hill, Crowborough
 B2188
 B2026
 A26
 Road linking A26 with B2026
 Crowborough Road
 Toll Lane
 A22 at Nutley and Wych Cross
 A275 at Wych Cross
 Legsheath Road
 Priory Road
 Lewes Road
 Plawhatch Lane
 Colemans Hatch Road
 Kidds Hill
 Roads at Chuck Hatch

2.12 The population within the affected area is generally concentrated in the main settlements of Lewes, Forest Row, Uckfield and Crowborough with the remaining population disbursed within the surrounding rural area. Therefore the area of study has been restricted to the main road corridors of interest including the A22, A275, A26, B2026 and B2188 at Ashdown Forest, and A26 and B2192 at Lewes. These roads link these larger settlements together, and with the surrounding main South East Road Network.

Core Strategy Proposals

2.13 The proposed development, contained within the Proposed Submission Core Strategy, which may have an impact in traffic movements are shown in the following tables.

Town/settlement	Built or already committed as of April 2010 (dwellings)	New allocations (dwellings)	Total dwellings (2006-2030)
Uckfield	742	1000	1742
Hailsham and Hellingly	1645	1300	2945
Polegate and Willingdon	565	700	1265
Stone Cross and Westham	42	650	692
Crowborough	632	300	932
Heathfield and Waldron	292	160	452
Adjacent to Tunbridge Wells boundary (within Frant Parish)	53	120	173
Rural villages	918	455	1373
Total Wealden	4889	4685	9574

Town/Settlement	New allocations Employment (B1/B2/B8) (net floorspace sq. metres)	New allocations Retail (net floorspace sq. metres)
Uckfield	12,650	10,707
Hailsham and Hellingly	8,650	6,230
Crowborough	0	0
Heathfield	0	0
Polegate and Willingdon/ Stone Cross	16,890	0
Rural area	0	0
Total Wealden	38,190	16,937

Name	Rural Village New Allocations (Net Additional Dwellings)
Wadhurst	70
Frant	20
Herstmonceux	70
Ninfield	50
Horam	100

Maresfield	50
East Dean	10
Berwick Station	20
Cross-in-Hand	25
Boreham Street	10
Ripe	10
Selmeston	10
Upper Dicker	10

3 Methodology

3.1 There are a number of roads within 200 metres of the Ashdown Forest and Lewes Downs SAC. However not all new development will be utilising the identified roads. The methodology therefore involves:

Current Annual Average Daily Traffic (2010)

3.2 Using data held by East Sussex County Council the current AADTs for 2009, for the A22, A275, A26, B2026 and B2188 at Ashdown Forest, and A26 and B2192 at Lewes, are as shown in Appendix 1.

Identification of relevant development areas

3.3 Use travel to work data to determine the relevant settlements to include in the study. Travel to work data and data of recreational visits will provide an indication of the general use of the road system. Wealden District covers a large area and not all residents or businesses will use the roads crossing or close to the Ashdown Forest and the A26 at Lewes on a regular basis. This is particularly relevant for the settlements to the south and east of Wealden, where there are alternative strategic and local road systems available.

3.4 For the assessment of impacts on the Ashdown Forest, relevant settlements are Uckfield (plus Maresfield) and Crowborough. For the purposes of this assessment Maresfield commitments have been included with Uckfield and therefore the same routing pattern applied. For the impacts upon Lewes Downs SAC the relevant settlements used are Uckfield and Crowborough. Whilst it is acknowledged that some (minor) additional traffic movements may originate from Hailsham and Polegate this would be difficult to quantify to any degree of certainty due to the alternative routing available to Lewes and beyond using the A27. Therefore for the purposes of this study Polegate and Hailsham development has not been included in the assessment upon the Lewes Downs SAC.

3.5 Figures for new housing allocations and commitments as at December 2010 are:

Uckfield + Maresfield	1548 + 61 = 1609
Crowborough	657

Assessment Process

3.6 The process adopted is as follows:

- Determine average weekday person total trips per household using TRICS

TRICS trip rates for private residential development vary according to the amount of mixed development (principally the extent of flats / apartments within the total development). Private housing in single house units gives a trip rate of 8.95 person trips / HH all modes, all purposes, 12 hour (0700-1900) average annual weekday. Private housing in mixed developments (i.e. houses plus flats) gives an equivalent trip rate of 6.780. Without knowing the precise mix likely in new allocations, the analysis uses the average of the above 2 values, i.e. 7.87 person trips / HH all modes, all purposes, 12 hour (0700-1900) average annual weekday. The equivalent average trip rate for vehicles is 4.51 / HH.

Using National Travel Survey Table NTS0503 the factor to growth 12 hour person trips (all purposes, all modes, weekdays) to 24 hour = 1.16.

Therefore annual average weekday (AAWP) person trip rate = $7.87 \times 1.16 = 9.13$ trips / HH.

- Determine average weekday commuter person trips per household using census Journey to Work data

Census Journey to Work data gives figures for employed persons per household in Crowborough and Uckfield as:

Crowborough	10097 / 7892
Uckfield	7322 / 5535

Multiplying by 2 for return trips, and factoring by 0.9 to account for non-work weekdays (5 weeks non-work per year), the AAWP commuter person trips from existing development in Uckfield and Crowborough is:

Crowborough	2.30 trips / HH
Uckfield	2.38 trips / HH
Average	2.34 trips / HH

Therefore annual average weekday (AAWP) person commuter trip rate = 2.34 trips / HH.

- Calculate annual average weekday (AAWP) non-commuter person trip rate
= $9.13 - 2.34 = 6.79$ trips / HH.

- Convert from AAWP to AADP (annual average [7] daily persons) using National Travel Survey Table NTS0504.

This gives AAWP : AADP (commuting) = 0.80, and non-commuting = 0.98

Annual average daily (AADP) person trip rates are therefore:

Commuting	$2.34 \times 0.80 = 1.87$ trips / HH
Non-commuting	$6.79 \times 0.98 = 6.65$ trips / HH

- Convert the above to account only for trips to / from areas external to Uckfield and Crowborough respectively ('strategic').

Census JTW data shows the ratio between external and internal workplaces for residents to be consistently 58% external : 42% internal in both towns. As non-commuter trips would include a greater proportion of internal (school journeys, more walk trips, local social trips etc) the reverse has been assumed for non-commuter trips.

Annual average daily (AADP) 'strategic' person trip rates are therefore:

Commuting	$1.87 \times 0.58 = 1.085$ trips / HH
Non-commuting	$6.65 \times 0.42 = 2.790$ trips / HH

Total 'strategic' annual average daily (AADP) person trip rate is therefore 3.88 trips / HH.

- Convert from person trip rate (AADP) to vehicle trip rate (AADT) using TRICS data.

TRICS person trip rate = 7.87 / HH
 TRICS vehicle trip rate = 4.51 / HH
 Therefore conversion from persons to vehicles = 0.57

Therefore 'strategic' annual average daily vehicle trip rate for use in this assessment is $3.88 \times 0.57 = 2.21$ vehicles / HH.

- Calculate the total number of new 'strategic' vehicle trips (AADT) that would arise from the assessment allocations + commitments figure.

Crowborough	$657 \times 2.21 = 1452$ AADT
Uckfield	$1609 \times 2.21 = 3555$ AADT

- Using Census Journey to Work workplace distribution as a proxy for the distribution for all 'strategic' trips, and determining route choices by use of Google Maps time and distance module, manually assign the new 'strategic' trips to the relevant highway network.

Routeing Options and assignment results are shown in Appendix 2.

4 Assessment Results

4.1 There are a number of routes available across the Ashdown Forest, and the results of the assessment in terms of additional annual daily traffic is shown in table 1 below.

Table 1: Additional Annual Average Daily Traffic Flows (AADT) on Ashdown Forest Highway Links from Allocations and Commitments in Uckfield and Crowborough

LINK	ADDITIONAL AADT
A22 north of Forest Row	583
A22 Forest Row - Wych Cross	583
A22 Wych Cross - Nutley	583
A22 Nutley - Maresfield	506
A26 Maresfield - Duddleswell Road	773
A26 Duddleswell Road - Crowborough	950
B2026 Maresfield - Duddleswell	105
B2026 Duddleswell - B2188	179
B2026 B2188 - Kidds Hill	179
B2026 Kidds Hill - Hartfield	105
B2188 B2026 - Friars Gate	0
Kidds Hill	74
Colemans Hatch - Wych Cross	0
Duddleswell Road (west)	77
Duddleswell Road (east)	151
B2110 Colemans Hatch - Forest Row	74

4.2 In terms of the Lewes Downs SAC, the assessment shows that the additional annual average daily traffic on the A26 north of Lewes resulting from development at Crowborough and Uckfield is 771 AADT.

5 Assessment conclusions

5.1 Maximum increases in traffic would arise on the A26 connecting Uckfield and Crowborough, and on the A22 between Uckfield and Forest Row with an increase of 950 vehicles/ day AADT. However, on no part of the Ashdown Forest highway network (A22, A26 and internal minor roads) or the road network in close proximity to Lewes Downs SAC would the housing commitments and proposed allocations result in an increase in AADT of more than 1000 vehicles per day.

5.2 The results for Lewes Downs SAC allow some margin for any minor increase in traffic resulting from routing to Lewes from Hailsham and Polegate.

Appendix 1: Annual Average Daily Traffic Data
(2009) for road network relating to Ashdown Forest
and Lewes Downs Special Area of Conservation

Ashdown Forest 2009 Base Traffic Flow Analysis

LINK	2009 AADT	% increase for plus 1000 AADT
A22 Forest Row - Wych Cross	14420	6.9
A22 Wych Cross - Nutley	12030	8.3
A22 Nutley - Maresfield	12320	8.1
A26 Crowborough - Crowborough Road (leads to Duddleswell)	15810	6.3
A26 Crowborough Road - Five Ash Down	10410	9.6
B2026 Maresfield - Duddleswell	5020	19.9
B2026 Duddleswell - Hartfield	2620	38.2
B2110 Forest Row - Colemans Hatch	3690	27.1
B2110 Colemans Hatch - Hartfield	3450	29.0
B2188 Duddleswell - Friars Gate	1990	50.3
Kidds Hill, B2026 - Colemans Hatch	1410	70.9
Crowborough Road, east of Duddleswell	5620	17.8
Crowborough Road, west of Duddleswell	3450	29.0
Colemans Hatch Road, Wych Cross - Colemans Hatch	2400	41.7
TOTAL all links	94640	14.8

Lewes Downs 2009 Base Traffic Flow Analysis

LINK	2009 AADT
B2192, Lewes	13,900
A26, Lewes	10,680

Appendix 2: Routeing Options and Assignment Results for road network relating to Ashdown Forest and Lewes Downs Special Area of Conservation

ASHDOWN FOREST APPROPRIATE ASSESSMENT

ROUTEING OPTIONS (BASED ON CENSUS JTW): PLUS NEW AADTs ALLOCATIONS AND COMMITMENTS (657 HH)

CROWBOROUGH

657 HH @ 2.21 'STRATEGIC' VEHICLE TRIPS / HH AADT = 1452 TOTAL

WORKPLACE (LA AREA)	OUT-COMMUTERS (2001 person trips) (all modes)	ROUTEING OPTIONS	TOTAL AADT	% BY EACH ROUTE (persons)	RELEVANT Y/N	ADDITIONAL TRAFFIC (vehicles)
eastbourne	94	A26 to Uckfield, then A22 <i>via Rotherfield to Mayfield, then A267/A22</i>	24	50	Y	12
hastings	21	<i>whole route not within study area</i>	5	100	N	
lewes	157	A26 to Uckfield and Lewes	40	100	Y	40
rother	57	<i>whole route not within study area</i>	15	100	N	
rest of wealden	1084	A26 / Duddleswell / A22 to Forest Row A26 / Duddleswell / B2026 / Kidds Hill / B2110 to Forest Row A26 to Uckfield <i>minor routes to Hartfield etc not within study area</i> A26 to Uckfield, then A22 etc beyond <i>via Rotherfield to Mayfield, then A267/A22 etc beyond</i>	271	2.5 2.5 20 5 35 35	Y Y Y N Y N	7 7 54 95
brighton and hove	66	A26 to Uckfield, Lewes and beyond	17	100	Y	17
sevenoaks	252	<i>whole route not within study area</i>	63	100	N	
tonbridge and malling	251	<i>whole route not within study area</i>	63	100	N	
tunbridge wells	1795	<i>whole route not within study area</i>	449	100	N	
rest of kent	93	<i>whole route not within study area</i>	23	100	N	
adur	6	A26 to Uckfield, Lewes and beyond	1	100	Y	1
crawley	203	A26 / Duddleswell /Kidds Hill / B2110 / A22 / A264 A26 / Duddleswell / A22 / A264	51	50 50	Y Y	25 25
horsham	21	A26 to Maresfield, then A272 / A24 A26 / Duddleswell / A22 to Wych Cross, then via Turners Hill	5	50 50	Y Y	2 3
mid sussex	445	A26 to Maresfield, then A272 to Haywards Heath / Burgess Hill etc A26 / Duddleswell / A22 to East Grinstead A26 / Duddleswell / B2026 / Kidds Hill / B2110 to East Grinstead	110	66 17 17	Y Y Y	73 19 19
worthing	12	A26 to Uckfield, Lewes and beyond	3	100	Y	3
rest of west sussex	0	A26 to Uckfield, then various to beyond	0	100	Y	0
inner/central london	556	<i>all public transport</i>	139	100	N	
outer london	243	<i>50% public transport or A 26</i> <i>50% public transport.Minor routes to Hartfield etc and onwards not within study area</i>	61	75 25	N N	
surrey	240	A26 / Duddleswell / A22 and onwards A26 / Duddleswell / B2026 / Kidds Hill / B2110 / A22 and onwards <i>minor routes to Hartfield etc not within study area</i>	61	37.5 37.5 25	Y Y N	23 23
elsewhere in UK	183	<i>all public transport</i>	46	100	N	
outside UK	27	<i>all public transport</i>	6	100	N	
TOTAL	5779		1452			448

Unless otherwise stated, traffic increases assume 100% by car (i.e. no public transport use)

ASHDOWN FOREST APPROPRIATE ASSESSMENT

ROUTEING OPTIONS (BASED ON CENSUS JTW): PLUS NEW AADTs ALLOCATIONS AND COMMITMENTS (1609 HH)

UCKFIELD

1609 HH @ 2.21 'STRATEGIC' VEHICLE TRIPS / HH AADT = 3555 TOTAL

WORKPLACE (LA AREA)	OUT-COMMUTERS (2001 person trips) (all modes)	ROUTEING OPTIONS	TOTAL AADT	% BY EACH ROUTE (persons)	RELEVANT Y/N	ADDITIONAL TRAFFIC (vehicles AADT)
eastbourne	91	<i>whole route not within study area</i>	76	100	N	
hastings	21	<i>whole route not within study area</i>	18	100	N	
lewes	544	<i>whole route not within study area</i>	452	100	N	
rother	45	<i>whole route not within study area</i>	38	100	N	
rest of wealden	1177	A22 to Forest Row	980	5	Y	49
		A26 to Crowborough & Eridge		20	Y	196
		B2026 to Hartfield		5	Y	49
		A272 E/W, A22/A26 south, <i>whole route not in study area</i>		70	N	
brighton and hove	238	<i>whole route not within study area</i>	198	100	N	
sevenoaks	58	A26 To Crowborough and Tonbridge	48	100	Y	48
tonbridge and malling	63	A26 To Crowborough and Tonbridge	52	100	Y	52
tunbridge wells	218	A26 To Crowborough and Tunbridge Wells	182	100	Y	182
rest of kent	51	<i>whole route not within study area</i>	43	100	N	
adur	30	<i>whole route not within study area</i>	25	100	N	
crawley	332	A22/A264	276	50	Y	138
		A272/A23		50	N	
horsham	39	A272	32	100	N	
mid sussex	536	A272 to Haywards Heath / Burgess Hill etc	446	67	N	
		A22 to East Grinstead		33	Y	147
worthing	24	<i>whole route not within study area</i>	20	100	N	
rest of west sussex	18	<i>whole route not within study area</i>	15	100	N	
inner/central london	292	<i>all public transport</i>	243	100	N	
outer london	188	<i>50% public transport - A22 via East Grinstead</i>	156	38	Y	59
		<i>50% public transport - B2026 via Hartfield towards Edenbridge</i>		12	Y	19
surrey	180	A22 via East Grinstead	150	75	Y	112
		B2026 via Hartfield towards Edenbridge		25	Y	38
elsewhere in UK	117	<i>all public transport</i>	97	100	N	
outside UK	10	<i>all public transport</i>	8	100	N	
TOTAL	4272		3555			1089

Unless otherwise stated, traffic increases assume 100% by car (i.e. no public transport use)

LEWES DOWNS SAC APPROPRIATE ASSESSMENT

ROUTEING OPTIONS (BASED ON CENSUS JTW): PLUS NEW AADTs ALLOCATIONS AND COMMITMENTS (657 HH)

CROWBOROUGH

657 HH @ 2.21 'STRATEGIC' VEHICLE TRIPS / HH AADT = 1452 TOTAL

WORKPLACE (LA AREA)	OUT-COMMUTERS (2001 person trips) (all modes)	ROUTEING OPTIONS	TOTAL AADT	% BY EACH ROUTE (persons)	RELEVANT Y/N	ADDITIONAL TRAFFIC (vehicles)
eastbourne	94	A26 to Uckfield, then A22 via Rotherfield to Mayfield, then A267/A22	24	50	N	
hastings	21	whole route not within study area	5	100	N	
lewes	157	A26 to Uckfield and Lewes	40	100	Y	40
rother	57	whole route not within study area	15	100	N	
rest of wealden	1084	A26 / Duddleswell / A22 to Forest Row A26 / Duddleswell / B2026 / Kidds Hill / B2110 to Forest Row A26 to Uckfield minor routes to Hartfield etc not within study area A26 to Uckfield, then A22 etc beyond via Rotherfield to Mayfield, then A267/A22 etc beyond	271	2.5 2.5 20 5 35 35	N N N N N N	
brighton and hove	66	A26 to Uckfield, Lewes and beyond	17	100	Y	17
sevenoaks	252	whole route not within study area	63	100	N	
tonbridge and malling	251	whole route not within study area	63	100	N	
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rest of kent	93	whole route not within study area	23	100	N	
adur	6	A26 to Uckfield, Lewes and beyond	1	100	Y	1
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worthing	12	A26 to Uckfield, Lewes and beyond	3	100	Y	3
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inner/central london	556	all public transport	139	100	N	
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elsewhere in UK	183	all public transport	46	100	N	
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TOTAL	5779		1452			61

Unless otherwise stated, traffic increases assume 100% by car (i.e. no public transport use)

LEWES DOWNS SAC APPROPRIATE ASSESSMENT

ROUTEING OPTIONS (BASED ON CENSUS JTW); PLUS NEW AADTs ALLOCATIONS AND COMMITMENTS (1609 HH)

UCKFIELD

1609 HH @ 2.21 'STRATEGIC' VEHICLE TRIPS / HH AADT = 3555 TOTAL

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rother	45	A22 to Eastbourne and beyond	38	100	N	
rest of wealden	1177	A22 to Forest Row	980	5	N	
		A26 to Crowborough & Eridge		20	N	
		B2026 to Hartfield		5	N	
		A272 E/W, A22/A26 south, whole route not in study area		70	N	
		A26 to Lewes and beyond		198	Y	198
brighton and hove	238	A26 to Lewes and beyond	198	100	Y	198
sevenoaks	58	A26 To Crowborough and Tonbridge	48	100	N	
tonbridge and malling	63	A26 To Crowborough and Tonbridge	52	100	N	
tunbridge wells	218	A26 To Crowborough and Tunbridge Wells	182	100	N	
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		A272/A23		50	N	
		A272		32	100	N
horsham	39	A272	32	100	N	
mid sussex	536	A272 to Haywards Heath / Burgess Hill etc	446	67	N	
		A22 to East Grinstead		33	N	
		A26 to Lewes and beyond		20	100	Y
rest of west sussex	18	A26 to Lewes and beyond	15	100	Y	15
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outer london	188	<i>50% public transport - A22 via East Grinstead</i>	156	38	N	
		<i>50% public transport - B2026 via Hartfield towards Edenbridge</i>		12	N	
		A22 via East Grinstead		150	75	N
surrey	180	B2026 via Hartfield towards Edenbridge	150	25	N	
elsewhere in UK	117	<i>all public transport</i>	97	100	N	
outside UK	10	<i>all public transport</i>	8	100	N	
TOTAL	4272		3555			710

Unless otherwise stated, traffic increases assume 100% by car (i.e. no public transport use)

