Joint Partnership Strategic Assessment 2010/11

NW Leicestershire CSP Appendices

NW Leicestershire CSP Risk Assessment Matrix

		Crime/Disorder Type	No. crimes/incidents last 12 months	% of overall crime/incident	Level of Control	Probability Score	Harm Score	Threat (Probability x Harm)	Classification	Include with Strategic Assessment?	Rate per 1000 Population	Year on Year Percentage Change
SPI categories	Serious Acquisitive Crime	Burglary Dwelling	282	4.7	C	8	15	120	Med		3.105	-22.7
		Vehicle Crime	739	12.2	C	17	14	238	High	Y	8.137	-17.4
		Robbery	22	0.4	C	1	14	14	Low		0.242	-38.9
	Serious Sexual Crime	Sexual Offences Against Adults (18 & Over)	11	0.2	C	1	12	12	Low		0.121	-8.2
		Sexual Offences Against Children (Under 18)	56	0.9	C	2	13	26	Low		0.617	
	Serious Violent Crime	Murder	0	0.0	C	1	12	12	Low		0.000	0.0
		Manslaughter	0	0.0	C	1	12	12	Low		0.000	0.0
		GBH sec. 18	10	0.2	C	1	15	15	Low		0.110	-27.3
		GBH sec. 20	8	0.1	C	1	15	15	Low		0.088	-23.1
	Criminal Assault LSI	ABH s 47	468	7.7	C	11	14	154	High	Y	5.153	-22.1
	Criminal Damage	Arson	58	1.0	C	3	12	36	Low		0.639	5.5
		Damage	1121	18.5	C	17	15	255	High	Y	12.343	-18.4
NSIR categories	Anti-Social Behaviour	Animal Problems	48	1.3	C	3	6	18	Low		0.529	-9.4
		Begging & Vagrancy	1	0.0	C	1	6	6	Low		0.011	-90.9
		Street Drinking	10	0.3	C	1	12	12	Low		0.110	-56.5
		Malicious Communications	113	3.0	C	5	8	40	Low		1.244	-6.6
		Noise	35	0.9	C	2	13	26	Low		0.385	-39.7
		Prostitution Related Activity	1	0.0	C	1	6	6	Low		0.011	
		Inappropriate sale / use / possession of fireworks	10	0.3	C	1	6	6	Low		0.110	-50.0
		Hoax Calls to Emergency Services	160	4.3	C	8	10	80	Med		1.762	-1.8
		Littering/Drugs Paraphernalia	29	0.8	C	2	15	30	Low		0.319	
		R & N Neighbour Disputes	286	7.7	C	11	15	165	High		3.149	8.7
		R & N Rowdy or Inconsiderate Behaviour	2257	60.9	C	17	18	306	High	Y	24.851	-13.8
		Trespass	21	0.6	C	2	13	26	Low		0.231	16.7
		Abandoned Vehicles (not stolen nor obstruction)	206	5.6	C	8	9	72	Low		2.268	-18.6
		Vehicle nuisance & inappropriate use (not obstruction)	529	14.3	C	17	12	204	High		5.825	10.0
Other categories		Domestic Abuse	467	7.7	C	11	18	198	High	Y	5.142	-21.1
		Business Crime (Local Objective Burglary OTD >£1000)	35	0.6	C	2	11	22	Low		0.385	-41.7
		Business Crime	960	15.9	C	17	11	187	High	Y	10.570	-19.3
		Hate Crime	26	0.4	C	1	12	12	Low		0.286	-36.6
		Burglary OTD	469	7.7	C	11	13	143	Med		5.164	-18.0
		Theft	1519	25.1	C	17	12	204	High	Y	16.725	-2.4
		Gun Crime	5	0.1	C	1	8	8	Low		0.055	80.0
		Knife Crime	23	0.4	C	1	8	8	Low		0.253	21.1
		Speeding					12					
		Killed or Seriously Injured Road Traffic Collisions					18					

HIGH = score > 151

MEDIUM = score 76 - 150

LOW = score 0 - 75

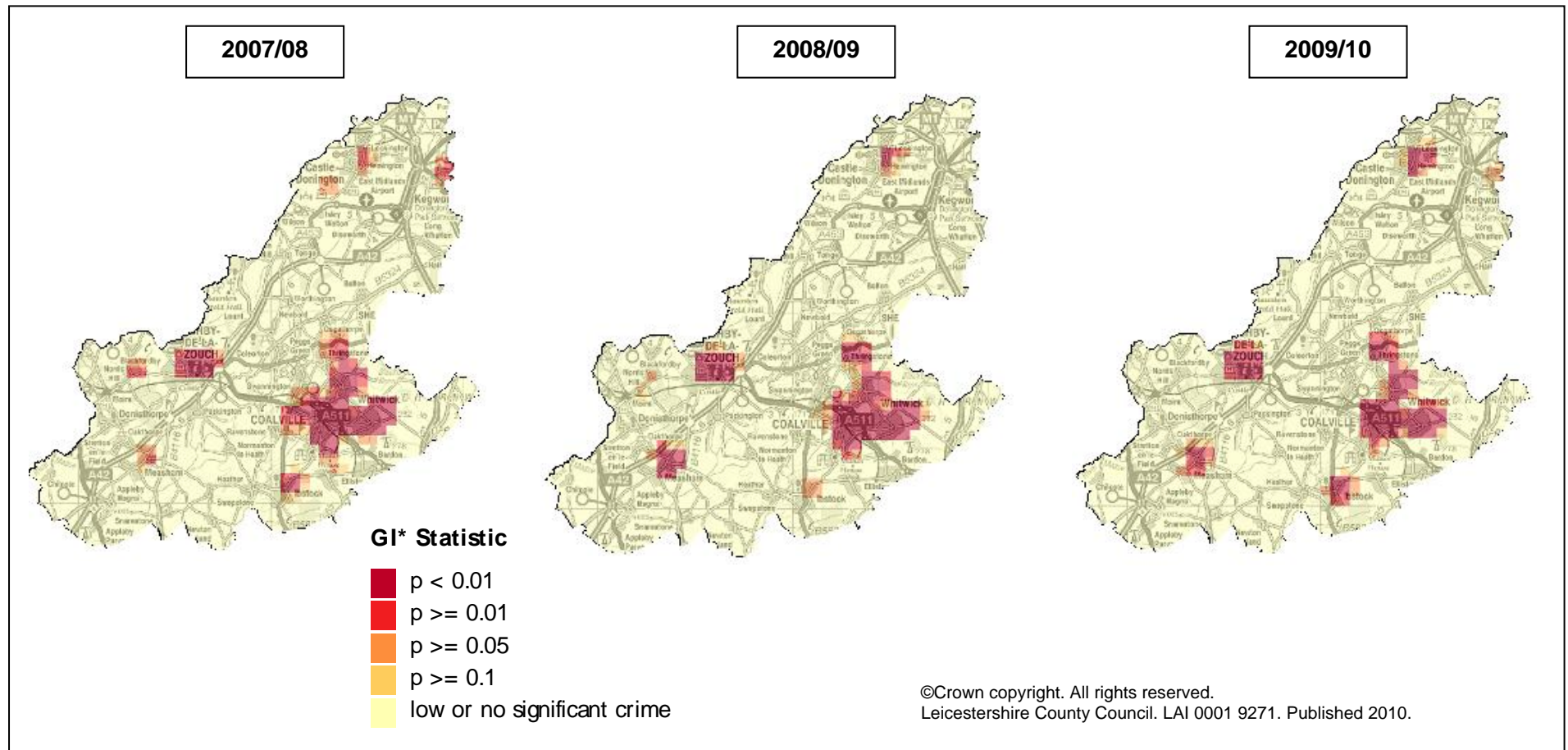**Figure 1.** Scanning Matrix for NW Leicestershire CSP

ABH

Figure 2. ABH Hot Spots in NW Leicestershire CSP

There are a number of ABH hot spots covering NW Leicestershire CSP, with the largest and most intense covering Coalville and the surrounding settlements of Whitwick and Thringstone. The highest actual incidence of ABH occurs within the area covering Whitwick Business Park to the north of the town centre. The Coalville areas has changed in size and intensity since 2007/08, with the area to the south of Whitwick becoming more intense during 2008/09 but becoming less so in 2009/10. Elsewhere in the CSP there are large hot spots located in Ashby and Measham, with smaller hot spots in Castle Donington and Ibstock. The Ibstock hot spot receded in its intensity during 2008/09 but has since increased during 2009/10.
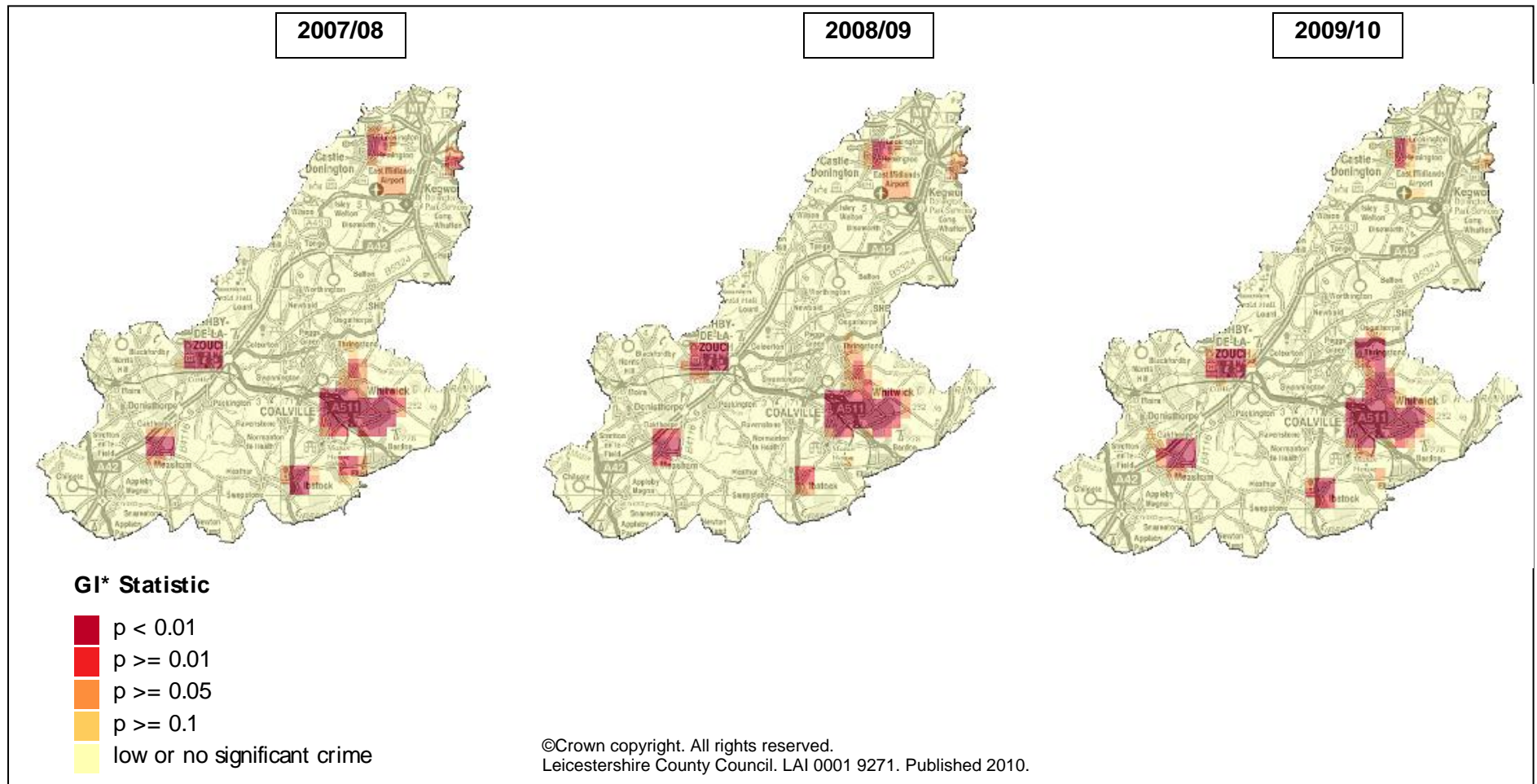
Anti Social Behaviour

Figure 3. Anti Social Behaviour Hot Spots in NW Leicestershire CSP

2007/08

2008/09

2009/10

GI* Statistic

- p < 0.01
- p >= 0.01
- p >= 0.05
- p >= 0.1
- low or no significant crime

The majority of the hot spots in NW Leicestershire CSP for ASB have remained consistently present since 2007/08 and cover most of the main settlement areas in the district. However, there appears to have been an increase in intensity of some of these hot spots: Measham, Ibstock and the areas to the north of Coalville around Whitwick and Thringstone. In relative terms there has been an improvement in the areas Castle Donington and East Midlands Airport.

Burglary Dwelling

2007/08 **2008/09** **2009/10**

GI* Statistic

- p < 0.01
- p >= 0.01
- p >= 0.05
- p >= 0.1
- low or no significant crime

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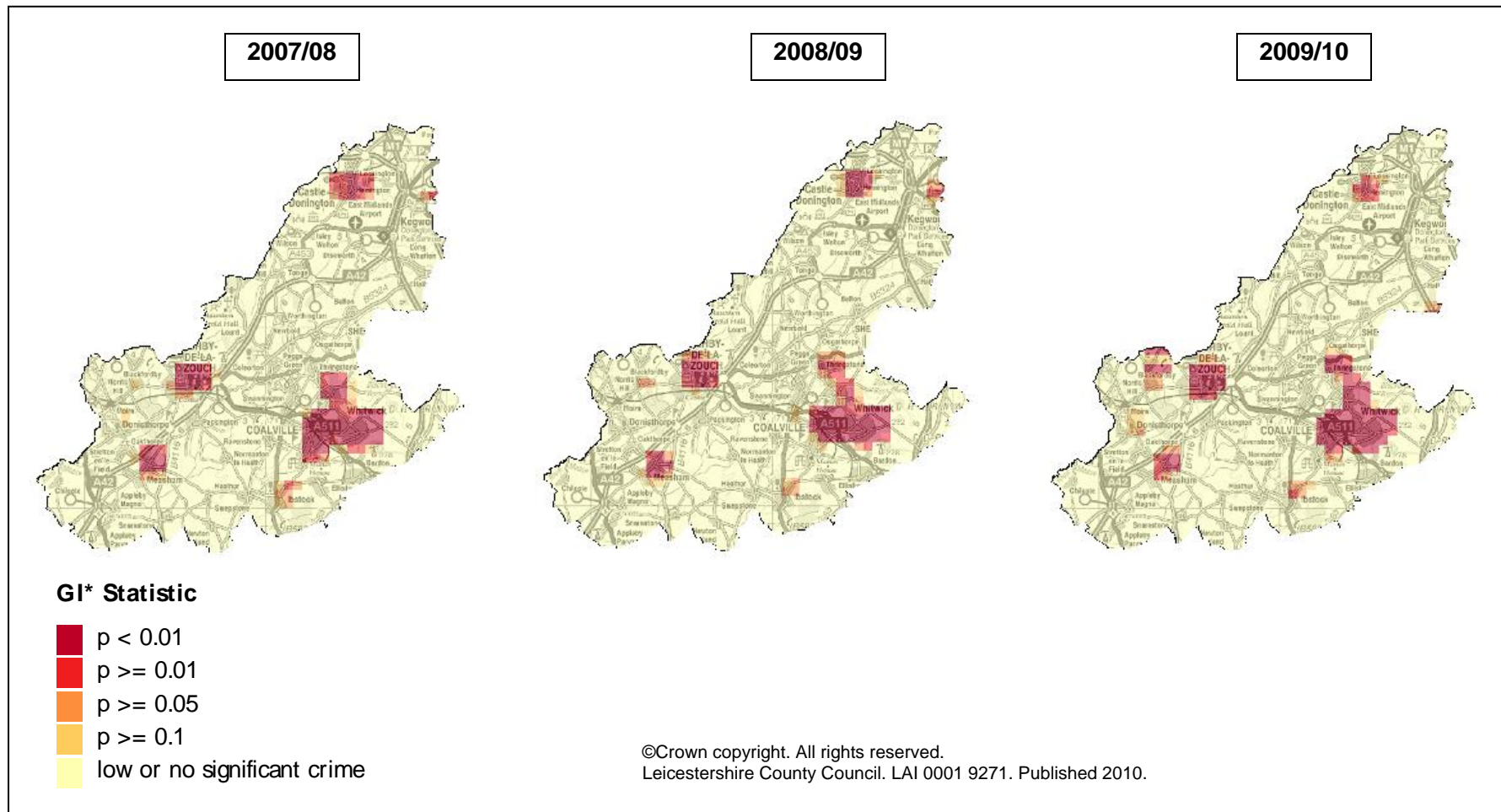
Figure 4. Burglary Dwelling Hot Spots in NW Leicestershire CSP

This CSP is dominated by static hot spots which represent persistent area of relatively high volume crime. The key areas are around Coalville, Whitwick and Thringstone. Castle Donington, Measham, Ibstock and Ashby also appear not to have changed in relative importance over the three year period. There are no notable areas of either emergence or improvement.

Criminal Damage

2007/08 2008/09 2009/10

GI* Statistic

- p < 0.01
- p >= 0.01
- p >= 0.05
- p >= 0.1
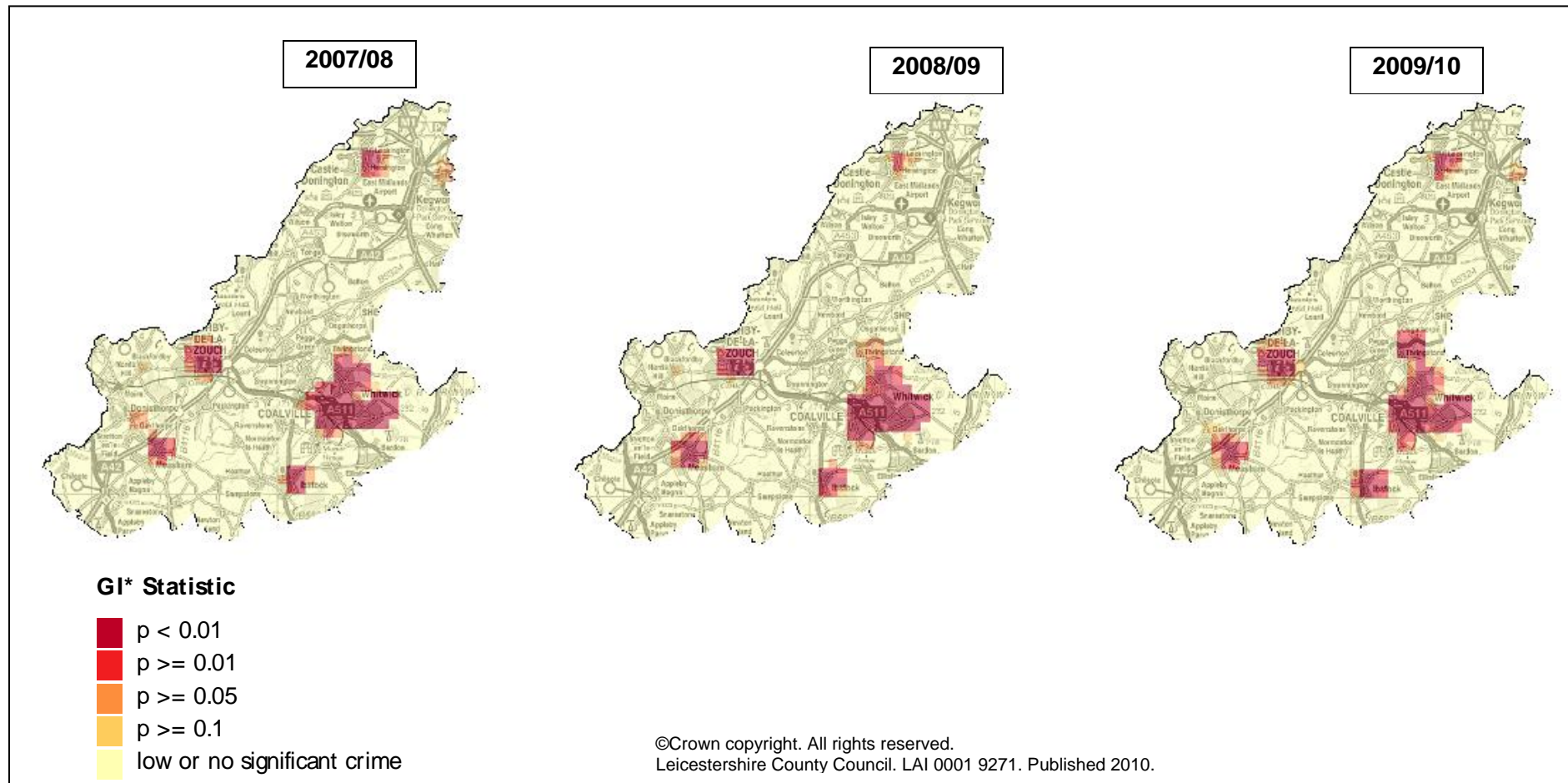- low or no significant crime

Figure 5. Criminal Damage Hot Spots in NW Leicestershire

In North West Leicestershire the main hot spot is focused around Coalville, which has spread to the outlying settlement of Thringstone and to a lesser extent Whitwick since 2007/08 to 2009/10. Elsewhere, there are hot spots in and around Ashby, Measham and Ibstock. There is a smaller, less intense hot spot around Castle Donington.
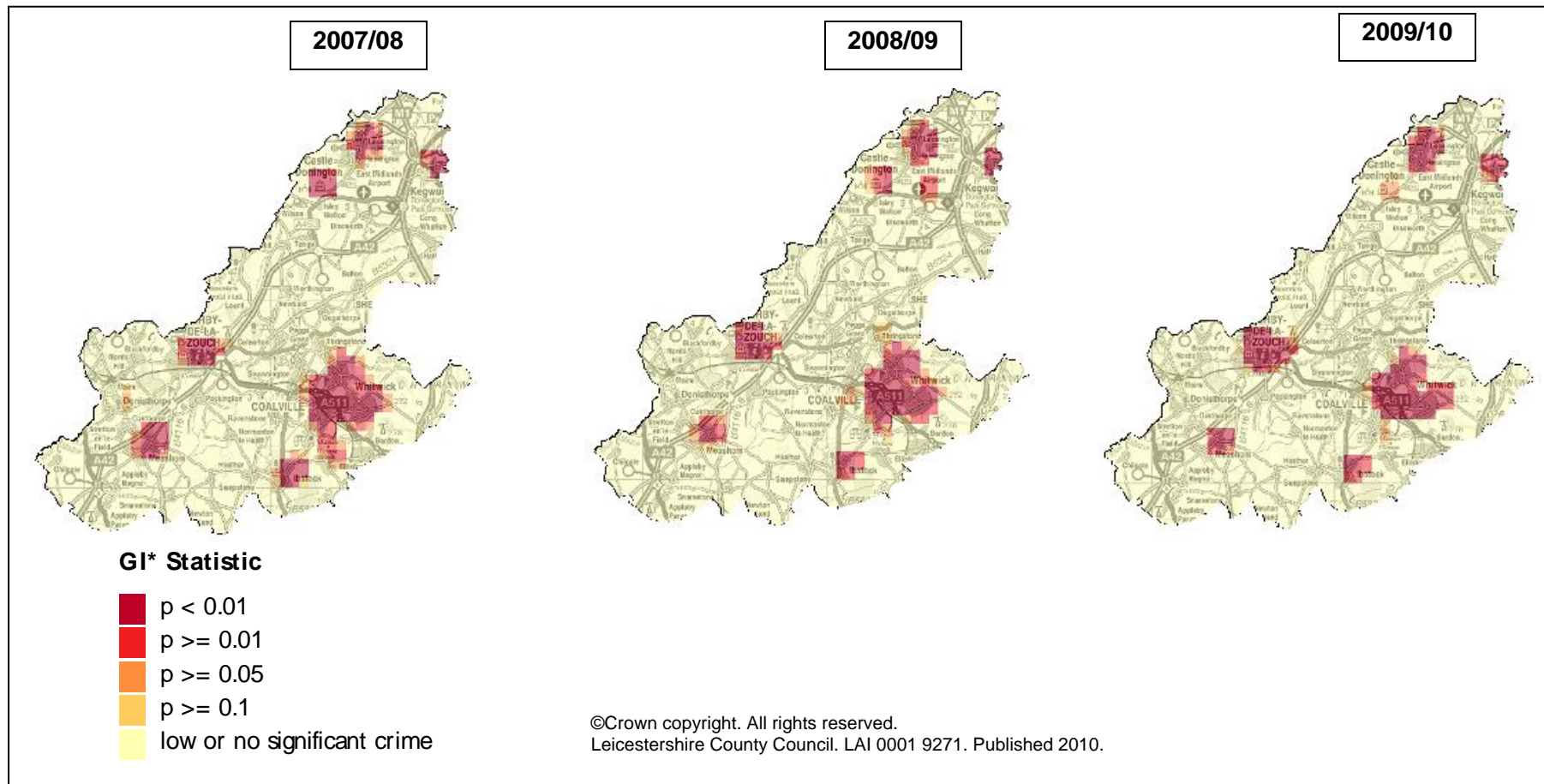
Vehicle Crime

Figure 6. Vehicle Crime Hot Spots in NW Leicestershire CSP

Hot spots of vehicle crime in NW Leicestershire are focused around the main settlements of Coalville (including Whitwick and Thringstone), Ashby, Measham, Ibstock and Castle Donington. These hot spots have exhibited little change in terms of size and intensity from 2007/08 to 2009/10.

Mapping Methodology

The maps cover five different crime types identified as being of interest to the Partnership Strategic Assessment 2010: Actual Bodily Harm, Anti-Social Behaviour, Vehicle Crime, Criminal Damage and Domestic Burglary. Due to methodology employed it was necessary to provide separate maps at all levels of geography covering the Leicestershire Constabulary Force Area, Leicester City, Leicestershire County, each of the seven districts, and Rutland.

The maps operate on a 500m grid resolution and use a spatial statistic to test for local spatial autocorrelation, or how closely near-by areas resemble each other in terms of the volume of crime. The statistic used is the Getis and Ord (1996) GI* statistic[1] which was run via the Rook's Case[2] add-on for Microsoft Excel. The volume of crime in each individual grid square is compared to the values in the eight squares that immediately surround it. These values are then compared to the global average for the area under consideration. A high positive value for the GI* statistic means that lots of high crime grid-squares are grouped together, whereas very low, negative, GI* values mean that lots of low crime areas are group together. For the purpose of the PSA mapping these low grid squares were classified together with areas of no crime.

As well as comparing local and global averages, a significance test is applied to the result for each grid-square that identifies if the local pattern of crime is significantly different to what is generally observed across the whole study area. The Rook's Case software reports this result as a standardised z-score which can then be converted into a probability. Where the probability is equal to 0.1 it means there is only a 10% chance that the differences observed occurred by chance rather than any real statistical difference in the grid pattern. The probabilities range between 0.1 and 0.01.

Standard thematic maps by grid square are used to display these probabilities in MapInfo and the following analysis is based on these maps. It is important to note that because of the way the statistic works: it considers only the distribution of values at a given point in time for a given area; direct comparison over time is not possible. Where comments have been made about changes over time, it is because either further analysis has been used within the GIS to work with the volume of crime, or the discussion relates to relative changes through time regarding emerging or improving hot spot locations. For the most part, the analysis is based only on the mapping evidence (particularly for the individual districts) and it should be noted that the volume of crime in these areas can be at very low levels, even in the identified hot spots. However, when considered in the context of each district individually, these areas are picked out as being statistically different from others by the mapping statistic.

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[1] Getis, A. and Ord, J.K. (1996) Local Spatial Statistics: An Overview. *In* Longley, P. and Batty, M. (eds.) *Spatial Analysis: Modelling in a GIS Environment.* (pp. 261-277). Cambridge, England: GeoInformation International.
[2] http://www.lpc.uottawa.ca/data/scripts/index.html

Deliberate Fires in NW Leicestershire 2009/10
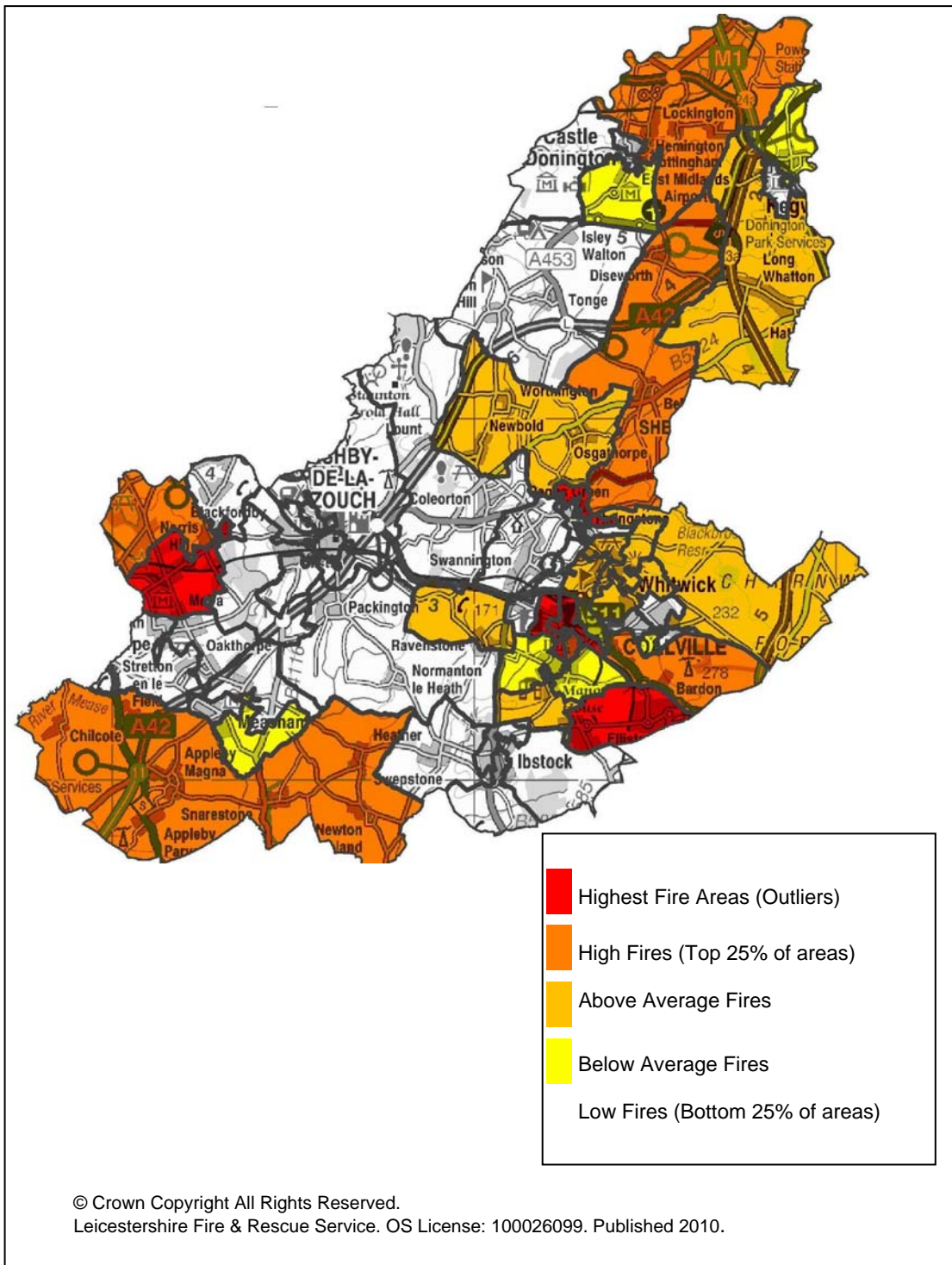
Figure 7. Deliberate Fires in NW Leicestershire CSP 2009/10

NW Leicestershire CSP Road Traffic Collisions

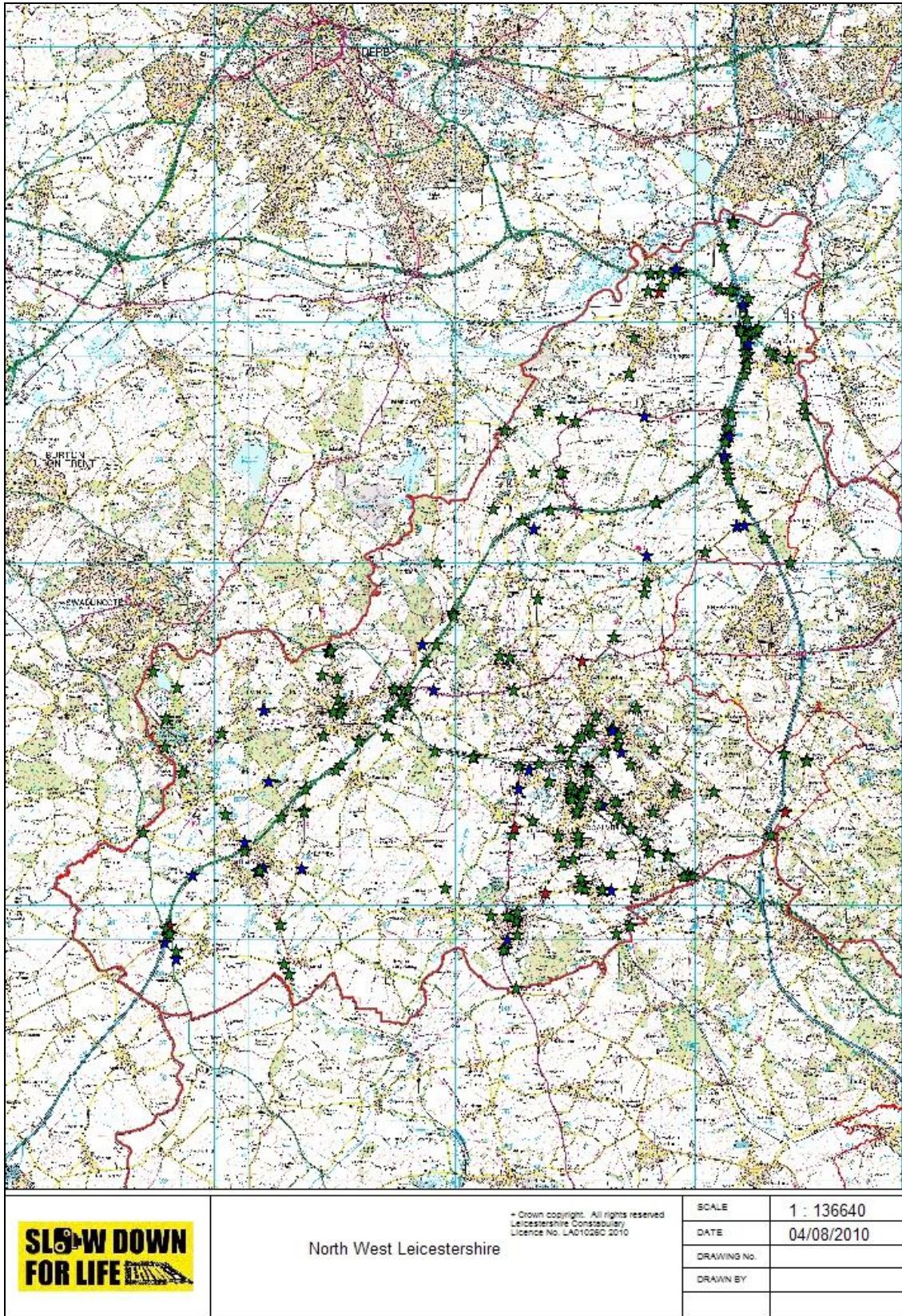|	SCALE	1 : 136640
+ Crown copyright. All rights reserved Leicestershire Constabulary Licence No. LA01026C 2010	DATE	04/08/2010
North West Leicestershire	DRAWING No.	
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Figure 8. Road Traffic Collisions in NW Leicestershire 2009/10