



SUMMARY ANALYSIS OF DELIBERATE SECONDARY FIRES THROUGHOUT ST HELENS DURING THE 2010 BONFIRE PERIOD

VERSION 1.0

KNOWLEDGE & INFORMATION MANAGEMENT DIRECTORATE

Please note that the data in this document is based on the live Incident Recording System. As this is a live system, the data contained within this document is subject to review and can be changed without announcement.

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Related Documents

Title: Merseyside 2010 Bonfire Period Report Summary v1.0

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- **Introduction**

This report presents a comparative analysis of Deliberate Secondary Fires, Wheelie Bin Fires and incidents of Violence at Work that occurred during the 2009 and 2010 Bonfire Periods within St Helens.

- **Methodology**

To identify and analyse any trends in incidents during the Bonfire Periods in 2009 and 2010 the following methodologies were followed:

- The period of analysis covered from 00.00hrs on 19th October to 23.59hrs on 7th November¹.
- Fire related incidents analysed within this report are all Deliberate Secondary Fires². Instances of Violence at Work have been collected from the OSHENS Health and Safety System.
- The analytical tools adopted in this report includes:
 - MapInfo Mapping Software – used to identify hotspot areas for incidents and used to filter data according to district, ward, Super Output Area and Police Beat level.
 - Crystal Reports – utilised to extract raw data and information from the BOSS Mobilisation System.
 - Microsoft Excel – used to analyse raw data.
- The wheelie bin analysis is based on the “Wheelie Bin” tag in Vision Boss; not on a narrative search.

¹ Previous Bonfire reports ran from 07:00 20th October – 07:00 7th November. Therefore the historical figures in this report will differ slightly in comparison to previous reports

² FSEC (Fire Service Emergency Cover) incidents codes include: 04 01 – Derelict Building, 04 02 – Grassland, 04 03 – Bonfires, 04 04 – Outdoor Structure, 04 05 – Refuse, 04 06 – Derelict Vehicle.

Findings

Deliberate Secondary Fires

- **Retrospective**

Chart 1: 5 Year Retrospective for Deliberate Secondary Fires within St Helens
5-Year Retrospective for Deliberate Secondary Fires in St Helens during the Bonfire Period (19th October - 7th November)

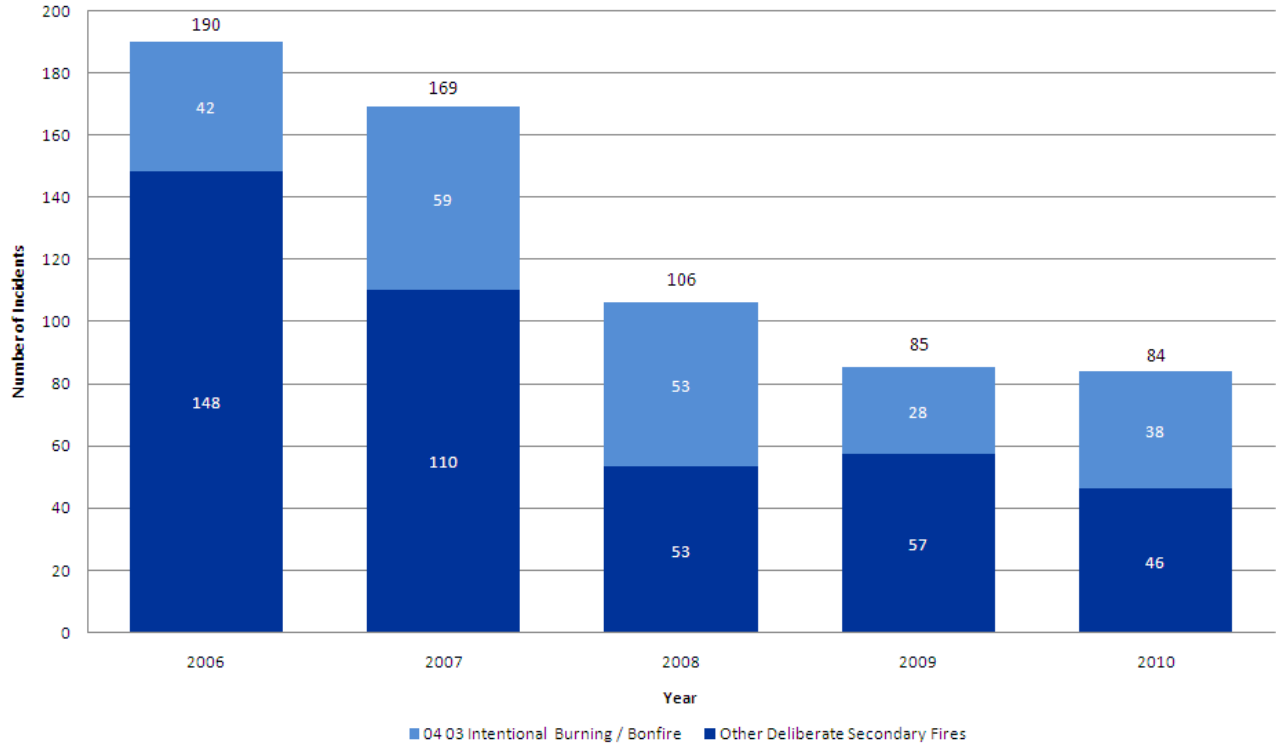


Chart 1 indicates that St Helens has consistently witnessed reductions in deliberate secondary fires since 2006, with a reduction of 106 (55.8%) incidents across the five years. Although there was an overall reduction of one deliberate secondary fire from 2009 to 2010, there was an increase of 10 (35.7%) “Intentional Burning / Bonfires” during this time.

Table 1: Incidents attended by type within St Helens, during 2009 and 2010 Bonfire Periods

Incident Type	2009	2010	Difference	% Change
04 01 Derelict Building	1	3	2	200.0%
04 02 Grassland	6	8	2	33.3%
04 03 Intentional Burning / Bonfire	28	38	10	35.7%
04 04 Outdoor Structure	2	1	-1	-50.0%
04 05 Refuse Fire	48	34	-14	-29.2%
04 06 Derelict Vehicle	0	0	0	N/A
Grand Total	85	84	-1	-1.2%

Table 1 demonstrates that although there was an overall reduction of one deliberate secondary fire during the 2010 Bonfire Period in St Helens, there was an increase in the following incident types: “Derelict Building” fires and “Grassland” witnessed increases of 2 each and “Intentional Burning / Bonfires” an increase of 10. There was no change in the number of “Derelict Vehicle” fires, a reduction of 1 “Outdoor Structure” fire and a reduction of 14 “Refuse” fires.

- **Temporal Analysis**

Chart 2: Day-to-Day Comparison of Deliberate Secondary Fires in St Helens
Comparison of Deliberate Secondary Fires in St Helens between 2009, 2010 and the 3 year average, by Day

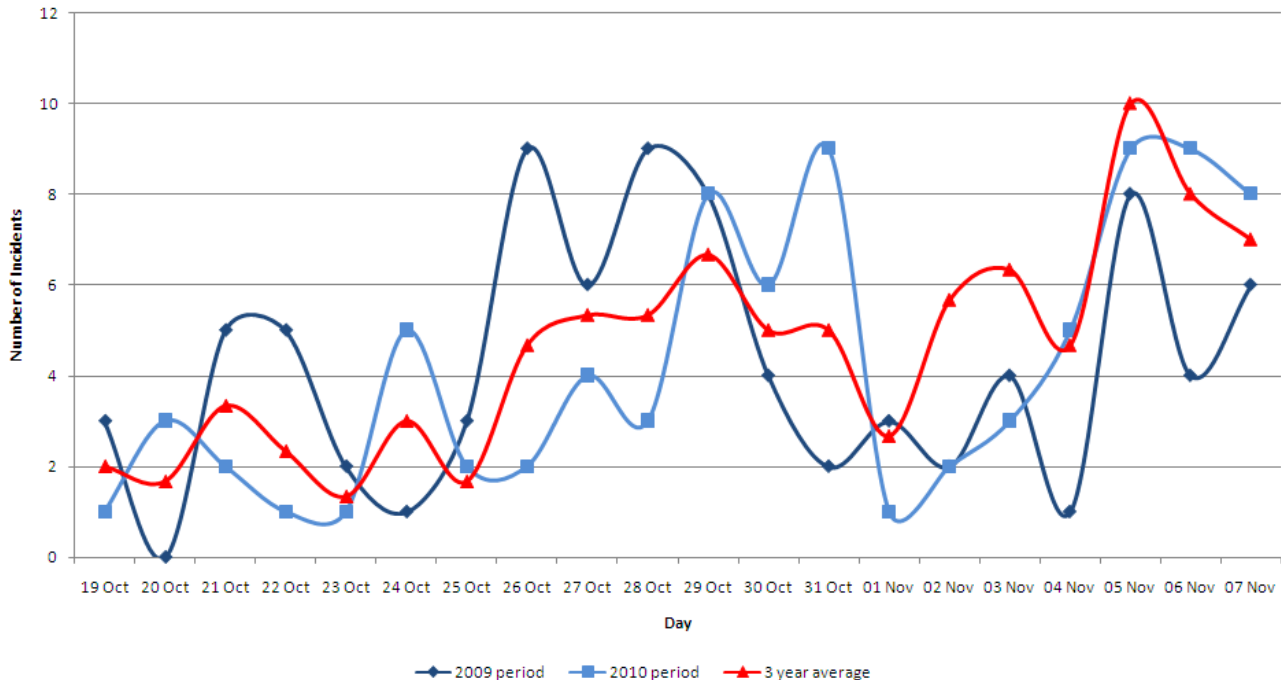


Chart 2 demonstrates that there was no clear pattern for incidents during the Bonfire Period 2010, as was the case during 2009 and for the three year average.

Though there was no definitive pattern, the 5th and 6th of November, (also the case in 2009 and for the three year average), along with 31st October, witnessed the peak number of deliberate secondary fires during the 2010 Bonfire Period, with 9 a piece. The fact that there is no clearly observable pattern of incidents during the 2010 Bonfire Period in St Helens further emphasises the fact that there were so few incidents, as was the case during the 2009 Bonfire Period.

Chart 3: Cumulative Daily Comparison of Deliberate Secondary Fires in St Helens
Cumulative comparison of Deliberate Secondary Fires in St Helens between 2009, 2010 and the 3 year average, by Day

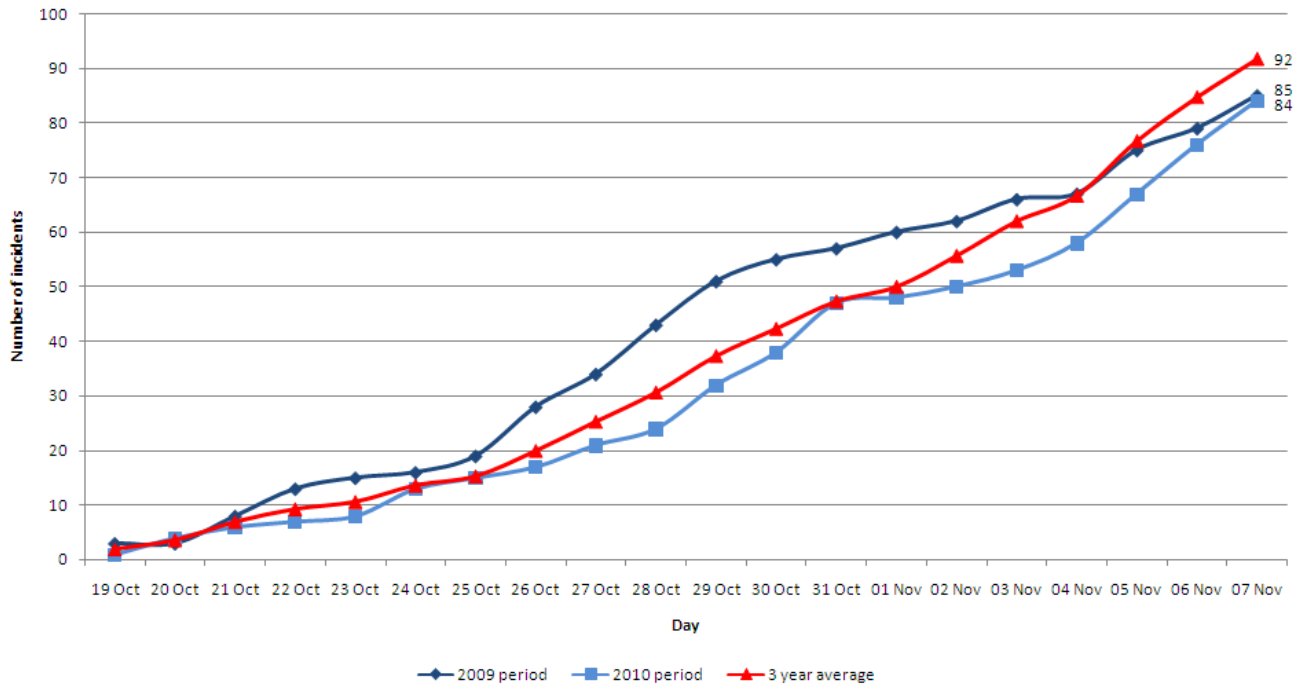


Chart 3 indicates that the cumulative total for deliberate secondary fires in St Helens during the 2010 Bonfire Period was always lower than that of the 2009 Bonfire Period and never surpassed the cumulative total for the three year average. When comparing the 2009 and 2010 Bonfire Periods, between the 26th October and 3rd November, the number of incidents during 2010 was constantly fewer by double figures than that of the 2009 period.

Chart 4: Distribution of Incidents by hour
**Comparison of Deliberate Secondary Fires in St Helens between 2009, 2010
and the 3 year average, by Hour**

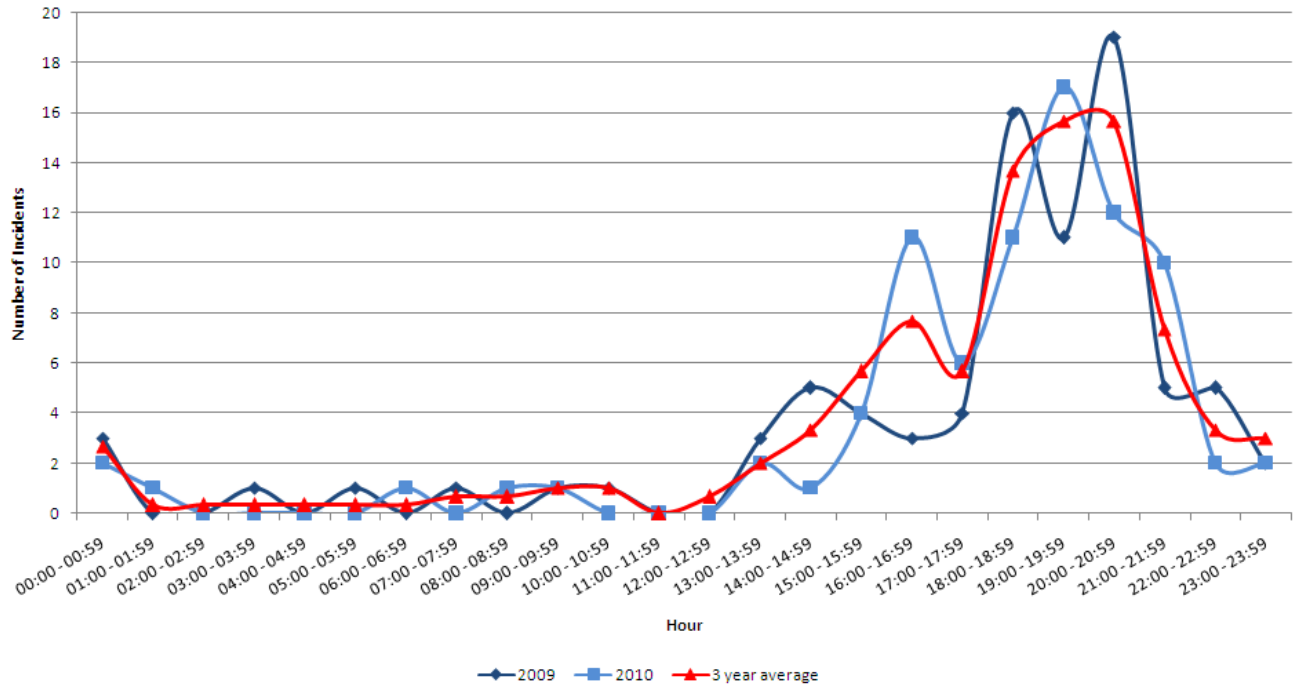


Chart 4 demonstrates a pattern in incidents that has been reflected across Merseyside, with the majority of deliberate secondary fires occurring between 16:00 and 22:59. The peak hour for incidents during the 2010 Bonfire Period was 19:00-19:59, which was an hour earlier than that of the 2009 Bonfire Period (20:00-20:59). It is also of note that there was a sharp rise in incidents between 16:00 and 16:59; however incidents then fell between 17:00 and 17:59, before rising sharply once more to reach the peak between 19:00 and 19:59. A distinctive lull in deliberate secondary fires is evident between 01:00 and 12:59 in St Helens during the 2010 Bonfire Period.

- **Spatial Analysis**

Table 2: Incidents attended in St Helens by Ward³

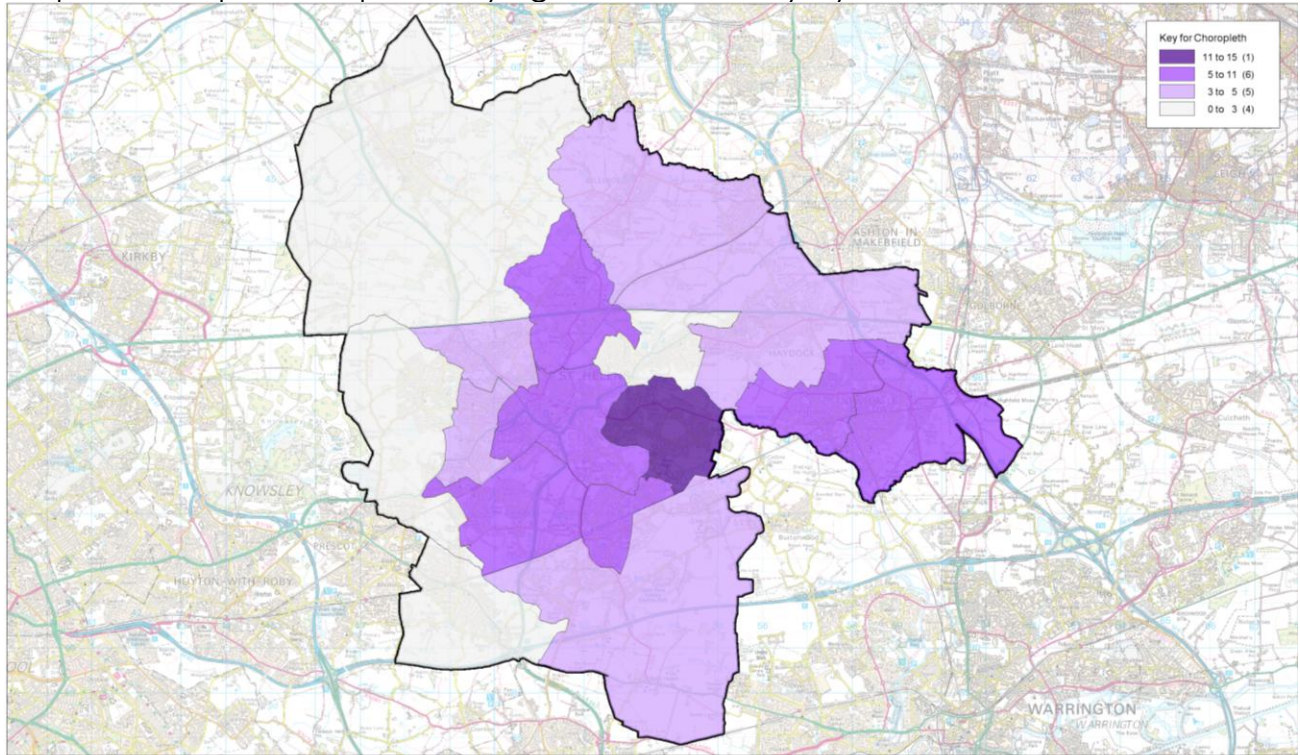
Ward	2009	2010	Difference	% Change
Parr	15	15	0	0.0%
Thatto Heath	5	10	5	100.0%
Town Centre	14	10	-4	-28.6%
Moss Bank	3	10	7	233.3%
Sutton	12	7	-5	-41.7%
Earlestown	1	5	4	400.0%
Newton	2	5	3	150.0%
West Park	6	4	-2	-33.3%
Windle	1	4	3	300.0%
Billinge & Seneley Green	3	4	1	33.3%
Haydock	4	4	0	0.0%
Bold	11	3	-8	-72.7%
Eccleston	4	2	-2	-50.0%
Rainhill	1	1	0	0.0%
Blackbrook	3		-3	-100.0%
Grand Total	85	84	-1	-1.2%

Table 2 indicates that Parr has reappeared as the ward to witness the greatest number of deliberate secondary fires, during the 2010 Bonfire Period as it was during the 2009 Period, with 15 incidents a. Though there was reduction of one deliberate secondary fire overall across the Bonfire Periods, there were several wards to witness increases in such incidents: Thatto Heath with an increase of 5, Moss Bank with an increase of 7, Earlestown with an increase of 4, Newton with an increase of 3, Windle with an increase of 3 and Billinge & Seneley Green with an increase of 1.

The greatest reduction was witnessed in Bold with a reduction of 8. Bold was ranked fourth for incidents during the 2009 Bonfire Period and has now dropped to 6th based on the 2010 Bonfire Period totals. Other wards to witness reductions were: Town Centre with a reduction of 4, Sutton a reduction of 5, West Park a reduction of 2, Eccleston a reduction of 2 and Blackbrook a reduction of 3.

³ See Appendices for full table of incidents in each ward.

Map 1: Choropleth map identifying incident density by ward



Choropleth Analysis for Deliberate Secondary Fires in St Helens, during Bonfire Period 2010 (19th October - 7th November)

Author: James Watson
Date: 09/11/2010
Produced using MapInfo
Knowledge and Information Management

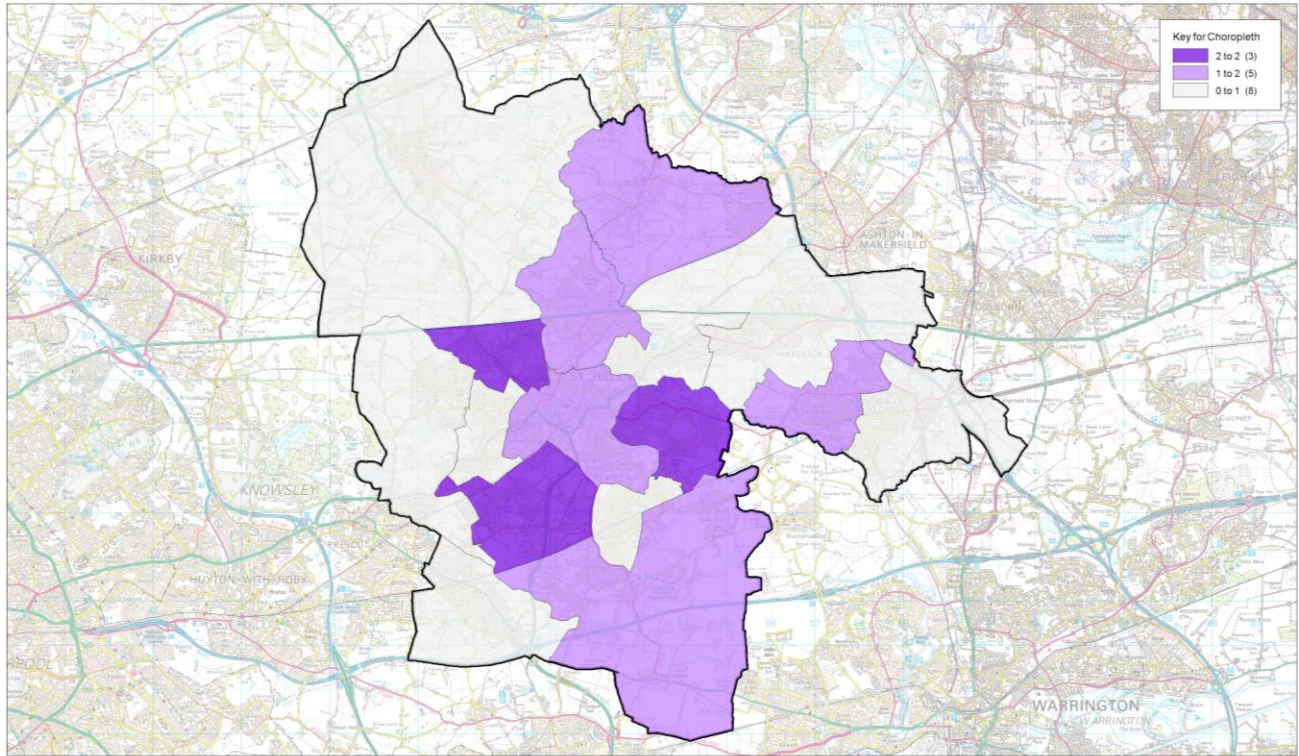
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Map 1 indicates that Parr witnessed the most incidents during the 2010 Bonfire Period, with 15 incidents during the 2010 Bonfire Period. It is also of note that the wards in the West of St Helens witnessed very few incidents in comparison to the other wards (as indicated by the lightest shading on the key). On viewing the map it is clear that the majority of incidents in St Helens during the 2010 Bonfire Period occurred towards the centre of the district, with Town Centre, Parr, Thatto Heath, Sutton and Moss Bank witnessing the greatest density of incidents.

- **Wheelie Bin Incidents**

Map 2: Choropleth map identifying density of wheelie bin related fires in St Helens



Choropleth Analysis for Wheelie Bin Related Fires in St Helens during the 2010 Bonfire Period (19th October - 7th November)

Author: James Watson
Date: 17/11/2010
Produced using MapInfo
Knowledge and Information Management

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Map 2 shows that the wards to witness the greatest proportion of wheelie bin related fires in St Helens during the 2010 Bonfire Period were Parr, Thatto Heath and Windle. As was the case with deliberate secondary fires, the West of St Helens witnessed very few wheelie bin fires in comparison to the rest of the district.

- **Violence at Work (VAW)**

There were no incidents of Violence at Work in St Helens during the entirety of the 2010 Bonfire Period, compared to 3 VAW incidents during the 2009 Bonfire Period.