



SUMMARY ANALYSIS OF DELIBERATE SECONDARY FIRES THROUGHOUT WIRRAL 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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- **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 the Wirral.

- **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 Fire Reporting System.
 - 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

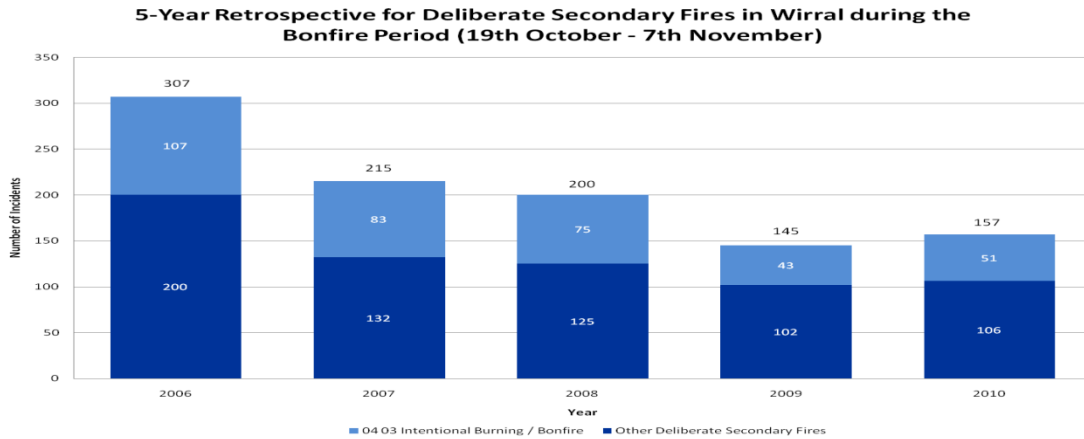
² FSEC (Fire Service Emergency Cover) incidents codes include: 04 01 – Derelict Building, 04 02 – Grassland, 04 03 – Bonfires, 04 04 – Outdoor Structure, 04 05 – Refuse, 04 06 – Derelict Vehicle.

- Findings

Deliberate Secondary Fires

Retrospective

Chart 1: 5 Year Retrospective for Deliberate Secondary Fires in Wirral



As illustrated in Chart 1, Wirral witnessed an increase of 12 deliberate secondary fires during the 2010 Bonfire Period compared the 2009 Bonfire Period. However, compared to the 2006 Bonfire Period, when Wirral witnessed the largest number of deliberate secondary fires during the five year period, Wirral has witnessed a reduction of 150 (48.9%) incidents.

Incident Analysis

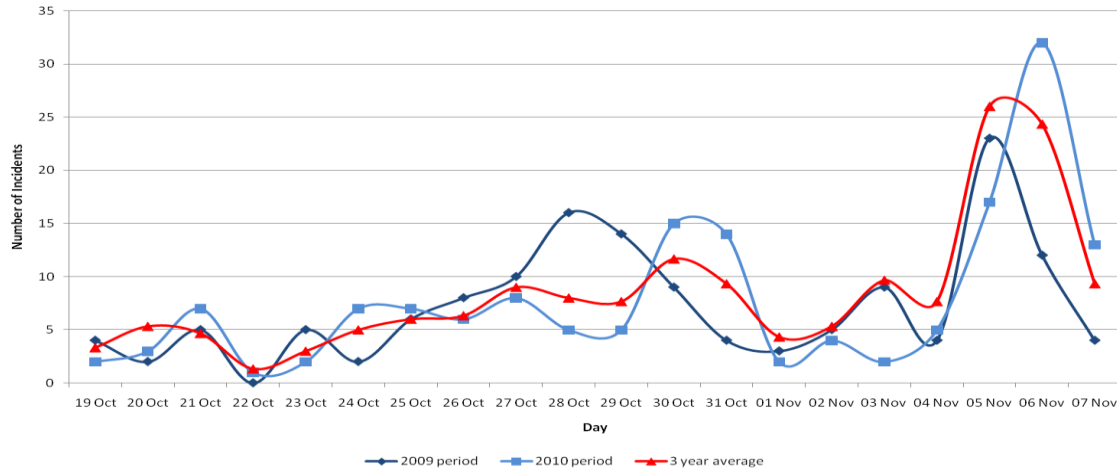
Table 1: Incidents attended by Type within Wirral, 2009 and 2010

Incident Type	2009	2010	Difference	% Change
04 01 Derelict Building	1	2	1	100.0%
04 02 Grassland	4	9	5	125.0%
04 03 Intentional Burning / Bonfire	43	51	8	18.6%
04 04 Outdoor Structure	5	5	0	0.0%
04 05 Refuse Fire	92	90	-2	-2.2%
04 06 Derelict Vehicle	0	0	0	N/A
Grand Total	145	157	12	8.3%

As Table 1 illustrates, during the Bonfire Period 2010, Wirral witnessed an increase of 12 incidents compared to the Bonfire Period 2009. Incidents of "Intentional Burning/Bonfire" witnessed the largest increase, with an increase of 8 incidents during the Bonfire Period 2010 compared to that of 2009. The only incident type that witnessed a reduction was "Refuse Fire" with a reduction of 2 incidents during the Bonfire Period 2010 compared to that of 2009.

Temporal Analysis

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



As Chart 2 illustrates, Wirral witnessed a similar trend in the daily distribution in the number of deliberate secondary fires during the 2010 Bonfire Period compared to the 2009 Bonfire Period and the 3-year average. However, unlike the previous year and the 3-year average the peak day for activity during 2010b is not the 5th November but the 6th of November.

Chart 2 also illustrates that during the 30th and 31st of October 2010, Wirral witnessed an increase in activity compared to the same period in 2009.

Chart 3: Cumulative Daily Comparison of Deliberate Secondary Fires in Wirral

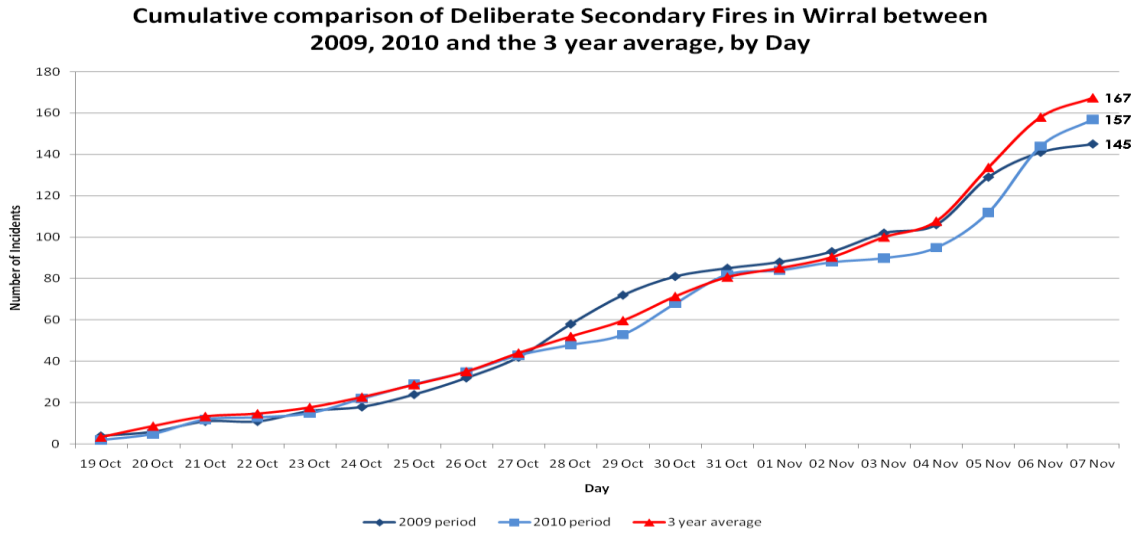
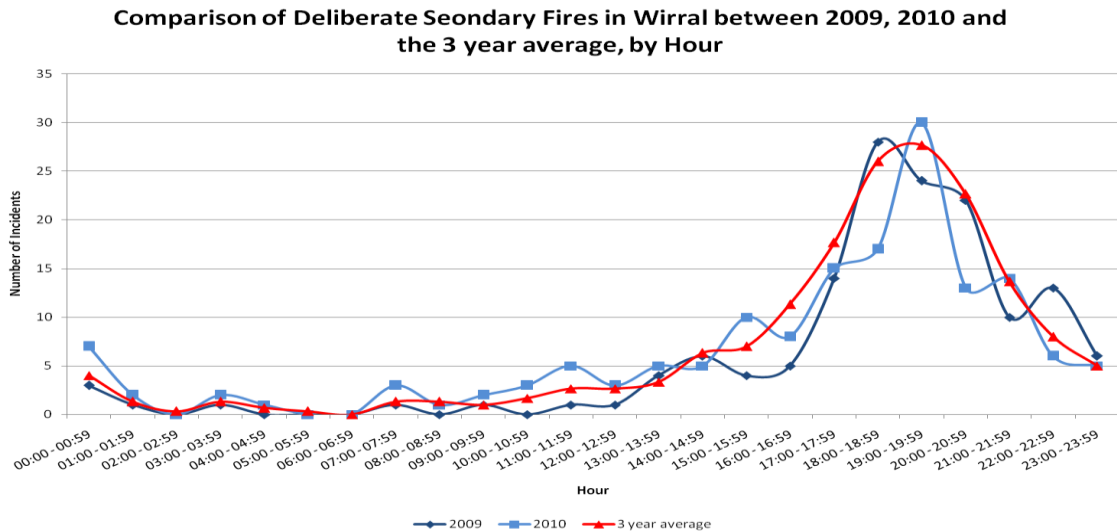


Chart 3 illustrates, that during the Bonfire Period 2010, there were fewer deliberate secondary fires compared the 3 year average. However, the increase in the number of incidents during the 6th and 7th of November, contributes to a total increase in deliberate fires during the 2010 Bonfire Period compared to same period in 2009.

Deliberate Secondary Fires by Hour

Chart4: Distribution of Incidents by Hour



As Chart 4 illustrates, there is a similar trend in the hourly distribution of deliberate secondary fires during the Bonfire Period 2010 compared to that of 2009 and the 3 year average. During the Bonfire Period 2010, activity increases from 13:00hrs until it reaches

its peak of activity between 19:00hrs and 19:59hrs. This is an hour later to the peak time during the 2009 Bonfire Period which was during 18:00hrs and 18:59hrs. Wirral witnessed a steeper decline from the peak time of activity during the 2010 Bonfire Period, compared to 2009 and the 3 year average.

Deliberate Secondary Fires by Ward

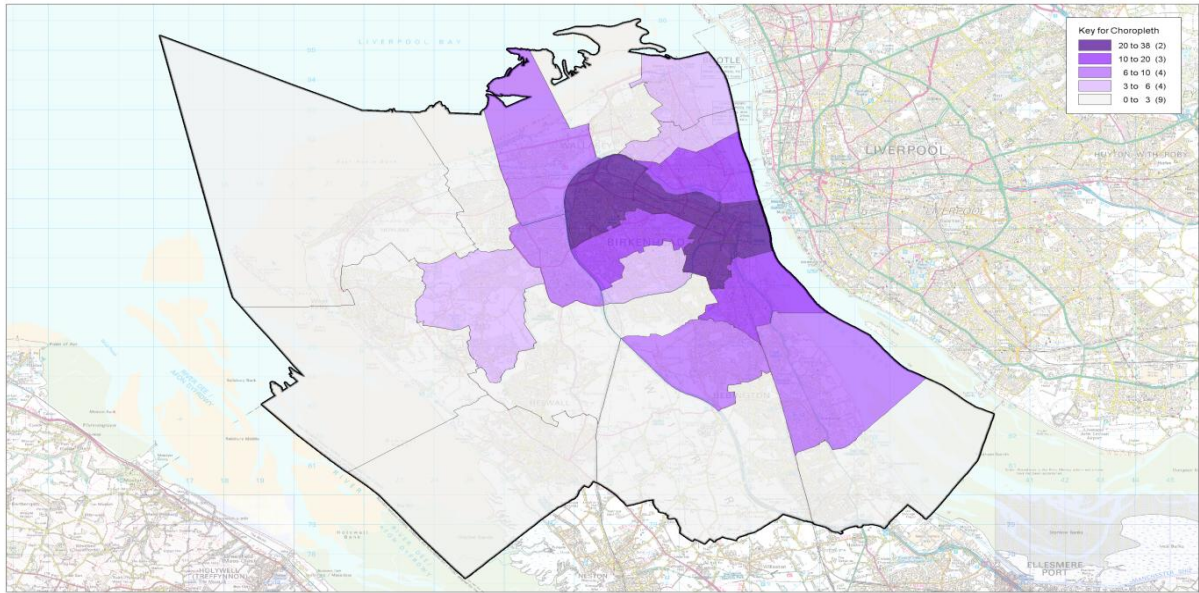
Table 2: Incidents Attended in Wirral by Ward

Ward	2009	2010	Difference	% Change
Birkenhead and Tranmere	32	38	6	18.8%
Bidston and St James	33	26	-7	-21.2%
Rock Ferry	15	17	2	13.3%
Seacombe	8	11	3	37.5%
Claughton	10	10	0	0.0%
Upton	10	9	-1	-10.0%
Bebington	1	8	7	700.0%
Bromborough	2	8	6	300.0%
Leasowe and Moreton East	9	6	-3	-33.3%
Liscard	5	5	0	0.0%
New Brighton	1	4	3	300.0%
Greasby Frankby and Irby	0	3	3	N/A
Oxton	4	3	-1	-25.0%
Prenton	2	2	0	0.0%
West Kirby and Thurstaston	2	2	0	0.0%
Wallasey	4	1	-3	-75.0%
Hoylake and Meols	0	1	1	N/A
Heswall	1	1	0	0.0%
Moreton West and Saughall Massie	1	1	0	0.0%
Pensby and Thingwall	0	1	1	N/A
Hoylake and Meols	3	0	-3	-100.0%
Eastham	2	0	-2	-100.0%
Grand Total	145	157	12	8.3%

As shown in Table 2, Birkenhead and Tranmere witnessed an increase of 6 deliberate fires during the 2010 Bonfire Period compared to the 2009 Bonfire Period, making it the top ranking ward for deliberate secondary fires in Wirral during the 2010 Bonfire Period. Bidston and St. James witnessed the largest decrease during the 2010 Bonfire Period compared to the same period in 2009, a reduction of 7 deliberate secondary fires.

Three wards witnessed notable increases: Bebington (7), Bromborough (6) and Birkenhead and Tranmere (6).

Map 1: Choropleth Map Identifying Incident Density by Ward



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

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

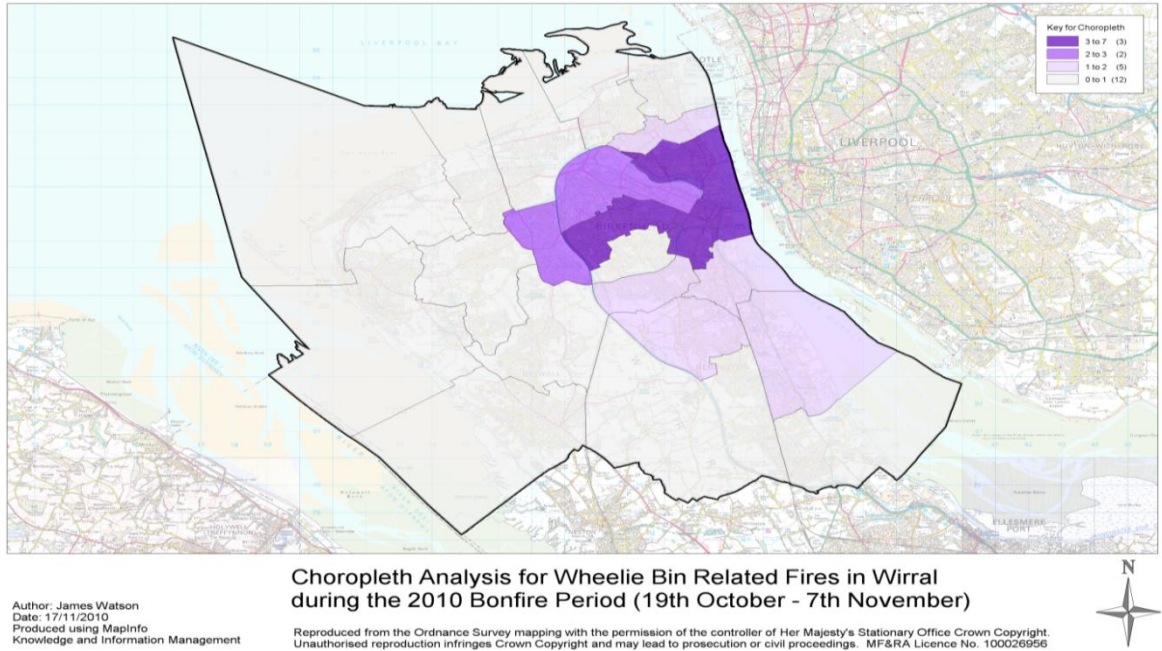
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As illustrated in Map 1, 13 of the wards in Wirral witnessed 3 or more deliberate secondary fires. As illustrated by the darker shading of the wards, 2 neighbouring wards experienced over 20 deliberate secondary fires, Birkenhead and Tramere (38) and Bidston and St. James (26). Three wards witnessed 10 to 20 deliberate secondary fires: Rock Ferry (17), Seacombe (11) and Claughton (10)

Wheelie Bin Incidents

Map 2: Choropleth Map Identifying Wheelie Bin Incidents in Wirral



As Map 2 illustrates, 10 wards throughout the Wirral witnessed at least one wheelie bin related fire during the Bonfire Period of 2010. During the Bonfire Period 2010, Wirral witnessed 24 wheelie bin fires, this a reduction of 10 (-29.4%) compared to the Bonfire Period of 2009. Birkenhead and Tranmere witnessed the largest number of wheelie bin fires, with 7 incidents during the 2010 Bonfire Period, whilst Seacombe witnessed 5 incidents. The following wards also witnessed wheelie bin fires during 2010 Bonfire Period: Cloughton (3), Upton (2), Bidston and St. James (2), Bebington (1), Bromborough (1), Liscard (1), Prenton (1) and Rock Ferry (1).

Violence at Work Incidents

During the Bonfire Period of 2010, there was no violence at work incidents in the Wirral District.