Lancashire Combined Fire Authority

Performance Committee

Meeting to be held on 11 March 2026

Flooding Incident Activity – Ten Year Analysis (2014/15 – 2024/25)

(Appendix 1 refers)

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Executive Summary

There were 881 flooding-related special service incidents recorded between 1 April 2014 and 31 March 2025.

This paper provides an overview of the levels of activity, distribution and impacts of incidents attended.

The appendix provides a detailed analysis of flooding events across districts and Lower Layer Super Output Areas (LSOAs).

Recommendation(s)

Performance Committee are asked to note the analysis of flooding-related demand and the continued importance of effective planning, preparedness and response to severe weather events impacting on our communities.

Information

This paper is the same paper that was reported to the performance committee in December 2025. It includes detailed information about incident numbers, broken down by district and LSOAs, in the appendix. The paper summarises special service incidents related to flooding recorded by Lancashire Fire and Rescue Service (LFRS), between 1 April 2014 and 31 March 2025. The analysis covers flooding due to surface water, rising river levels, high tide, or reservoir and the recorded causes (heavy rainfall, obstruction/blockage, structural failure). Incidents involving burst pipes, etc., are excluded. Fiscal years are used to align with seasonal effects and include the most recent 2025 data.

There have been 881 flood related incidents over the ten-year period. Activity peaked in 2015/16 due to storm Desmond and storm Eva, both of which occurred in December 2015, with activity generally trending downward since then. The most recent year recorded 67 incidents, equating to 74.1% fewer incidents than the 259 recorded in 2015/16, and 31.5% fewer incidents than the ten-year average.

Over the first half of the analysis period, activity typically followed an alternating peak and trough pattern, however activity decreased notably during 2021/22 to 2022/23, and activity over the most recent two years has been static.

TABLE 1

Flooding source	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25	Total
Surface Water	161	59	128	16	80	74	30	10	53	56	667
Rising River Level	95	7	16	4	36	17	4		12	10	201
High Tide	2		1	1		1			1	1	7
Reservoir	1		3						2		6
Total	259	66	148	21	116	92	34	10	68	67	881

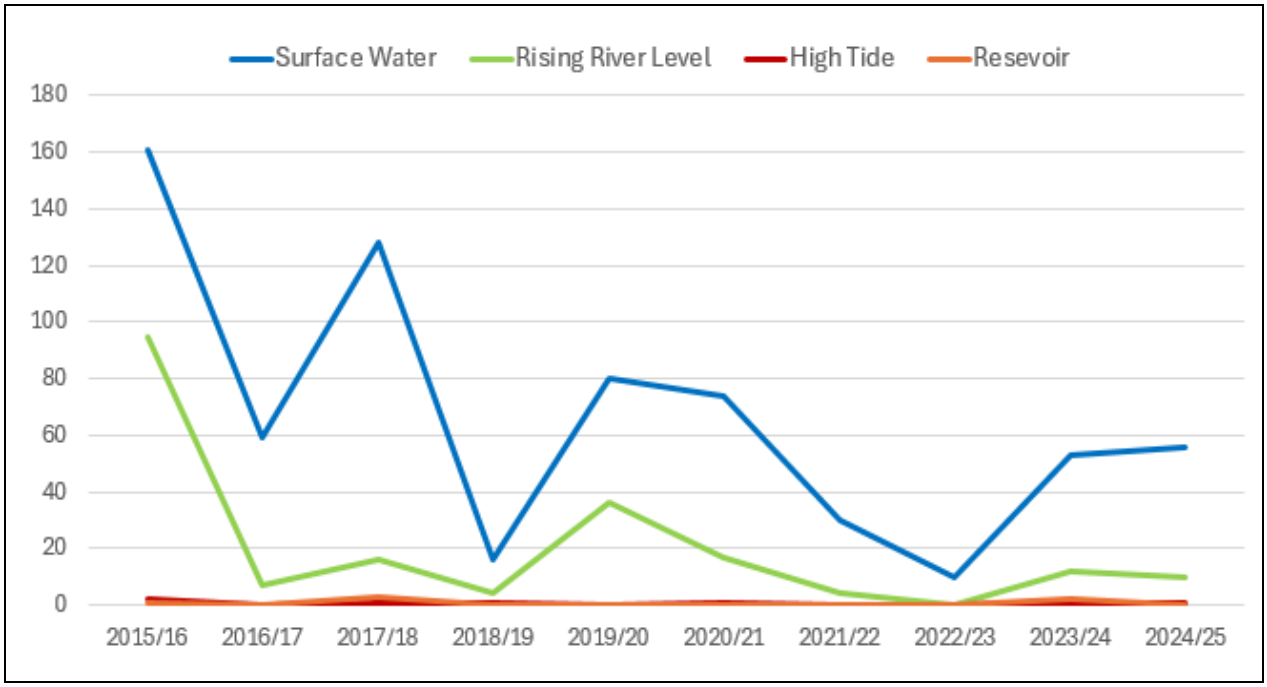
Overall, the winter months account for 41.7%, autumn 31.1%, summer 24.1%, and with the lowest activity months being the spring season at 3.2%. However, incidents occurred most frequently in the individual months of December (26.1%) and November (18.8%), which combined, accounted for 44.9% of activity.

TABLE 2

	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar
Activity	6	6	76	63	73	35	73	166	230	62	75	16
% of total	0.7%	0.7%	8.6%	7.2%	8.3%	4.0%	8.3%	18.8%	26.1%	7.0%	8.5%	1.8%

Table 3 shows the flooding related activity over the ten-year period broken down by the source of flooding.

TABLE 3



Whilst the source of a flooding incident may be due to surface water for example, the actual cause of the incident may be due to an event such as heavy rainfall, obstruction or blockage, or structural failure. For example, the large-scale flooding seen in the village of St Michaels on Wyre during Storm Desmond in December 2015 was due to rising river levels and a structural failure i.e. embankment. Structural failure is a relatively rare event and accounts for just 1.1% of the 881 incidents.

Overall, heavy rainfall accounted for 90.6% of the causes, with an obstruction or blockage accounting for just 7.5%. An obstruction or blockage could be caused by drainage issues (blocked roadside drains, culvert etc.).

Table 4 shows the source of the flooding and the cause of the event.

TABLE 4					
Flooding source and cause	Heavy Rainfall	Obstruction/ Blockage	Structural Failure	Not recorded	Total
Surface Water	601	60	6		667
Rising River Level	194	4	3		201
High Tide				7	7
Reservoir	3	2	1		6
Total	798	66	10	7	881
%	90.6%	7.5%	1.1%	0.8%	

Table 5 shows that over the last 10-year period, Lancaster district accounted for the largest number of flooding incidents, recording 190 (21.6% of the total).
This is quite distantly followed by West Lancashire with 90 (10.2%) and 87 occurring in Wyre (9.9%).

The top four districts of Lancaster, West Lancashire, Wyre, and Rossendale account for almost 50% of the incidents. Lancaster district accounts for the largest amount of surface water, rising river levels, and high tide incidents. The high tide incidents are

mainly around the Glasson Dock area. The five reservoir incidents within Chorley district are from an area north of Anglezarke reservoir.

TABLE 5						
District	Surface Water	Rising River Level	High Tide	Reservoir	Total	% of Total
Lancaster	117	70	3		190	21.6%
West Lancashire	84	6			90	10.2%
Wyre	67	19	1		87	9.9%
Rossendale	41	30			71	8.1%
Ribble Valley	45	14	2		61	6.9%
Chorley	38	13		5	56	6.4%
Fylde	52	2			54	6.1%
Preston	50	3			53	6.0%
Blackpool	47			1	48	5.4%
South Ribble	33	12	1		46	5.2%
Pendle	28	11			39	4.4%
Burnley	20	11			31	3.5%
Hyndburn	22	3			25	2.8%
Blackburn With	18	6			24	2.7%
Out Of Area	5	1			6	0.7%
Total	667	201	7	6	881	

There are large variations of activity within each district between the years. For example, Table 6 shows that Lancaster recorded almost 50% (93 incidents) of its activity in 2015/16, with another peak in 2017/18 accounting for an additional 32%.

Overall, all districts but three have a decreasing trend, with only Blackburn with Darwen, Chorley, and Fylde recording a small increasing trend. During the most recent year only West Lancashire has recorded a notably greater number of incidents with 17. These are almost exclusively heavy rainfall related.

TABLE 6											
District	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25	Total
Lancaster	93	9	61	1	10	13	0	0	2	1	190
West Lancashire	12	27	0	0	13	14	2	2	3	17	90
Wyre	18	4	35	0	6	3	5	4	10	2	87
Rossendale	19	0	9	1	25	6	0	1	0	10	71
Ribble Valley	29	4	3	6	3	5	3	0	2	6	61
Chorley	10	1	8	1	6	10	0	0	11	9	56
Fylde	7	0	6	1	4	20	2	2	11	1	54
Preston	12	2	1	3	9	6	11	0	7	2	53

Blackpool	3	4	17	1	9	2	4	0	6	2	48
South Ribble	19	2	0	1	9	3	3	0	3	6	46
Pendle	19	0	2	3	8	0	2	0	3	2	39
Burnley	7	7	1	2	7	0	1	0	1	5	31
Hyndburn	9	1	2	1	3	3	0	1	3	2	25
Blackburn With Darwen	2	3	3	0	4	3	1	0	6	2	24
Out Of Area	0	2	0	0	0	4	0	0	0	0	6
Total	259	66	148	21	116	92	34	10	68	67	881

Flooding events can quickly affect many properties over a wide area, so in certain circumstances, spate conditions are declared. These conditions are when many calls are received simultaneously, for incidents not at the same address. This means that affected property counts can be recorded as estimates, or there is a single record for the original location/property, but the actual number affected is far greater. This may involve large numbers of properties in which the counts are only captured within free text narrative.

However, overall, there have been 8,708 recorded properties affected by flood water entry. This includes three separate incidents in 2017/18 in which a count of 500 properties at each incident were recorded.

Table 7 shows the number of incidents within each property count banding.

TABLE 7												
Properties affected	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25	Total	% of Total
None	38	17	15	4	19	18	6	1	15	11	144	16.3%
1 to 5	167	40	81	17	79	63	24	5	41	39	556	63.1%
6 to 10	14	4	21		7	5	1		5	8	65	7.4%
11 to 20	14	5	9		5	5			3	5	46	5.2%
21 to 30	4		1		1	1		2			9	1.0%
31 to 40			2							2	4	0.5%
50 to 99	4		7		1		3			2	17	1.9%
100+	12		9		3			2	1		27	3.1%
Unknown	6		3		1				3		13	1.5%
Total	259	66	148	21	116	92	34	10	68	67	881	

Spate conditions can also affect the recording of casualties, rescues, and evacuations, so these can sometimes be estimates, especially where large numbers of people are not directly evacuated by the Fire Service.

The table below shows a count of incidents against the number of people evacuated with the assistance of the Fire Service. For example, there was a single incident during 2015/16 in which 50 people were evacuated.

TABLE 8											
Evacuated with Fire Service assistance	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25	Total
1	4		4		3	1					12
2	1		1		1						3
3	2					1					3
4		1								1	2
5			1								1
6	1										1
7	1										1
8	1										1
10			1								1
12					1						1
15			1								1
16						1					1
50	1										1
Total	11	1	8	0	5	3	0	0	0	1	29

Table 9 records a count of incidents against the number of people evacuated without the assistance of the Fire Service. There was a single incident during 2017/18 in which 100 people were evacuated.

TABLE 9											
Evacuated without Fire Service assistance	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25	Total
1	2			1		1			1		5
2	1		1		2						4
3			1								1
4						1					1
5	1										1
6						1					1
8		1									1
10	2		1								3
20	1				1				1		3
21		1									1
25	1										1
30	1				1						2
50	1										1
100			1								1
Total	10	2	4	1	4	3	0	0	2	0	26

The tables below show where casualty details have been recorded. These people have been either rescued without an injury or have a recorded injury. Note that these differ from the previous evacuations in which no rescue was required, or no injury occurred.

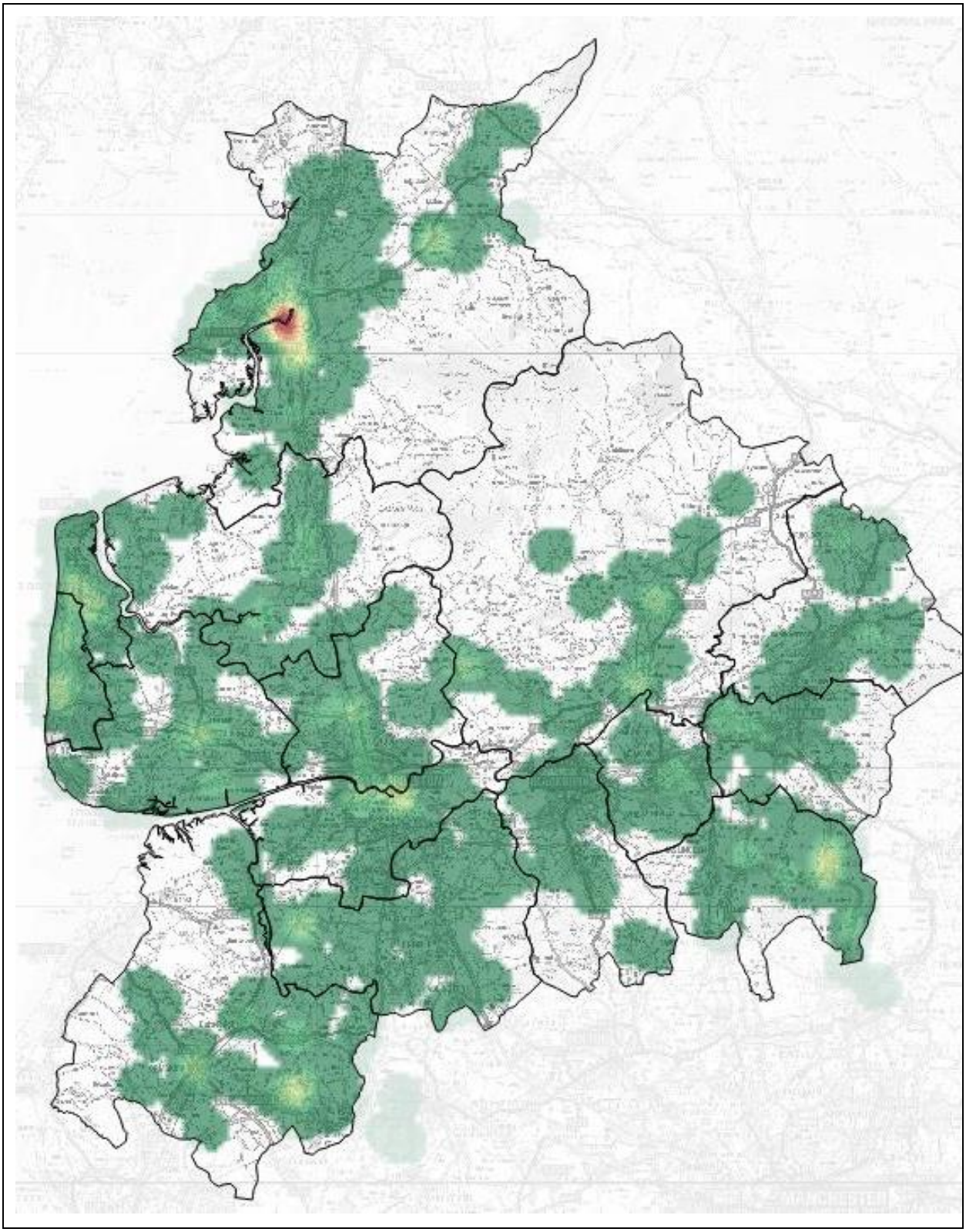
TABLE 10

Casualty status	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25	Total
Rescued (rescue without injury)	23	1	19		4	4	4		14	20	89
Injury (incl. rescue with injury)									3	2	5
Total	23	1	19	0	4	4	4	0	17	22	94

In addition to the above, there is an incident type which may be used as an alternate to, but related to flooding, such as a rescue or evacuation from water. An additional section has been added to the end of this report to account for this alternative.

Ten-year heat map of flooding incidents.

TABLE 11



There is an additional incident classification that, whilst not recorded as a flooding incident, is related to the effects of flooding: 'Rescue or evacuation from water'. These are where people have been rescued/assisted by the Fire Service from a vehicle or a location/property surrounded by water. An example would be when a vehicle has entered floodwater and become stranded.

Over the ten-year period, there have been 115 such rescues/evacuations.

TABLE 12											
	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25	Total
Person in or on top of vehicle that is surrounded by moving or rising water greater than (2) foot deep	17	2	9	2	8	10	2	1	3	14	68
From widespread flooding, e.g. flooded streets or field.	5			2	2		2	1	3	3	18
Person assisted through or across public highway covered by water	3		1	1	2	2	1	1	1	4	16
Person assisted from dwelling surrounded by water	7	1					1	2			11
Person in or on top of buildings that is surrounded by moving or rising water that will exceed head height or cause structural collapse	2										2
Total	34	3	10	5	12	12	6	5	7	21	115

Business risk

Without sustained capability for a response to severe weather incidents, there is a risk of reduced operational effectiveness during spate conditions, this may impact public safety, increase operational demand on neighbouring Fire and Rescue Service (FRS) partners, and expose the Authority to reputational risk.

Sustainability or Environmental Impact

Neutral/positive. Investment in severe weather response capabilities mitigates environmental harm by limiting water damage and contamination spread during floods or wildfires. Any equipment procurement will consider lifecycle impacts and energy efficiency.

Equality and Diversity Implications

Flooding disproportionately affects vulnerable communities (e.g. older and disabled residents, and low-income households in high-risk areas). Response planning and public warning/informing should continue to account for accessibility and targeted engagement.

Data Protection (GDPR)

Will the proposal(s) involve the processing of personal data? No. The analysis uses aggregated incident data; no personally identifiable information is included.

HR implications

None identified

Financial implications

None identified as part of this paper.

Legal implications

Proposals align with duties under the Fire and Rescue Services Act 2004 (rescue and protection) and the Civil Contingencies Act 2004 (warn and inform). No direct legal implications arise from noting this report.

Local Government (Access to Information) Act 1985

List of background papers

Paper:
Date:
Contact:

Reason for inclusion in Part 2 if appropriate: Insert Exemption Clause