

Shap Fire Station
Risk Based Evidence Profile 2018
Risk Review



**Prepared by Cumbria County Council
Performance and Intelligence Team**

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Introduction

This document forms part of the Risk-Based Evidence Profile 2018 (RBEP 2018). The RBEP 2018 is comprised of a 'core' document profiling risk and demand across the county, and 38 individual station profiles (of which this is one).

The RBEP 2018 is developed to support the Integrated Risk Management Plan (IRMP) 2019-23. The purpose of the IRMP 19-23 is to identify and assess fire and rescue related risks for the next four years, and set out what the service is going to do to address them.

Each station profile details the station area and its available resources, alongside the demand and risk for that station. Prevention and protection activities are also provided to evaluate the scope of mitigating actions that have been taken to address high priority risks.

Horizon scanning is conducted to identify any significant infrastructure, economic and housing developments which need to be taken into account for future service provision.

Station Area and Resources

The fire station is situated in Shap. A map of the 'station area'¹ is shown below. The station in 17/18 was crewed by 9 firefighters working the On-call duty system.



Station Area	4,100 population
Crewing Type	On-call
Fire Engines	1 fire engine

The following table indicates the travel distance in miles from Shap Fire Station to the next nearest three fire stations.

Station Name	Distance by Road (MILES)
Penrith	10 miles
Appleby	11 miles
Kendal	16 miles

¹ This is a nominal area which distributes the county across its 38 stations for the purposes of management and performance benchmarking.

Fire Engine Availability

During 2017/18 the Shap On-call fire engine had been off duty for 12.25% of the time.

C68P1	2015/16	2016/17	2017/18
Total Availability	78.63%	79.18%	87.75%
Mon - Fri (08:00 - 18:00)	61.03%	63.72%	77.17%
Mon - Thurs (18:00 - 08:00)	92.82%	94.23%	98.61%
Fri - Mon (18:00 - 08:00)	79.99%	78.10%	86.48%

Station Fire Engine Response Times

Shap fire engine has been called to the following number of incidents over the last three years with the associated response times. Some of the incidents attended may have been in neighbouring station areas.

Between 2015/16 and 2017/18 the Shap On-call fire engine (C68P1) had the following response times below

C68P1	2015/16	2016/17	2017/18
Average crew turnout time (time it takes the crew to respond to the station)	4 mins 8 secs	4 mins 42 secs	4 mins 44 secs
Average response time (time it takes the crew to arrive at the incident from the station)	10 mins 18 secs	10 mins 49 secs	11 mins 41 secs
Number of incidents attended by fire engine C68P1	59	42	48

Station Area Response Priorities

A 3 year profile of demand within the station area, with associated number of fatalities and seriously injured casualties, is detailed in the table below.

Table 1: Prevention, Protection and Response Priorities: Shap

Fire, Rescue and Road Safety Priorities 2018/19	Incidents			Fatalities				Seriously Injured Casualties				PRIORITY	2017/18 compared to 3yr average ³
	2015/16	2016/17	2017/18	2015/16	2016/17	2017/18	Average per 100 incidents	2015/16	2016/17	2017/18	Average per 100 incidents		
All incidents	51	41	53	1	1	-	1.4	-	1	-	0.7	n/a	↑
Injury Road Traffic Collisions ¹	2	6	1	1	1	-	22.2	-	1	-	11.1	Very High	↓
Primary Fires ²	11	9	9	-	-	-	0.0	-	-	-	0.0	Very High	↓
Flooding and water incidents	3	-	-	-	-	-	0.0	-	-	-	0.0	High	↓
Gas incl Carbon Monoxide	-	-	-	-	-	-	0.0	-	-	-	0.0	Medium	↔
Automatic Fire Alarms	17	20	20	-	-	-	0.0	-	-	-	0.0	Standard	↑
Wildfires ⁴	-	-	-	-	-	-	0.0	-	-	-	0.0	Standard	↔
Animal Assistance Incidents	1	-	2	-	-	-	0.0	-	-	-	0.0	Standard	↑

↔ = No Difference +/-5% ↑ = Higher ↓ = Lower

¹Injury Road Traffic Collisions include RTCs attended by CFRS where there was a fatality or a rescue with injury

²Primary fires include all fires in buildings, vehicles and outdoor structures or any fire involving casualties, rescues or fires attended by five or more appliances

³Increase or decrease if greater than 5% of three year average

⁴Wildfire is defined as any uncontrolled vegetation fire which requires a decision, or action, regarding suppression, plus any one of the following criteria (i) involves a geographical area of greater than 1 hectare (ii) has a sustained flame length of 1.m (iii) requires a committed resource of 4 or more appliances (iv) requires resources to be committed for over 6 hours (v) presents a serious threat to life, environment, property and infrastructure

Primary Fire Response Profile

Incident and Risk Profile

In 2017/18, there were 53 incidents within Shap Fire Station. This included 1 Injury RTC and 9 primary fires.

CFRS Risk Profile identifies the levels of risk within an area (Lower Super Output Area²) of incident types occurring – this is based on the likelihood of an incident occurring and also on the likelihood of that incident being of a life-threatening or serious nature. Full details of the risk model calculations used are in Appendix B of RBEP 2018.

The fire risk model shows an increasing fire risk for Shap Fire Station with no high level risk LSOAs, and overall risk score increasing from 66 in 2014/15 to 68 in 2018/19, an increase of 3%.

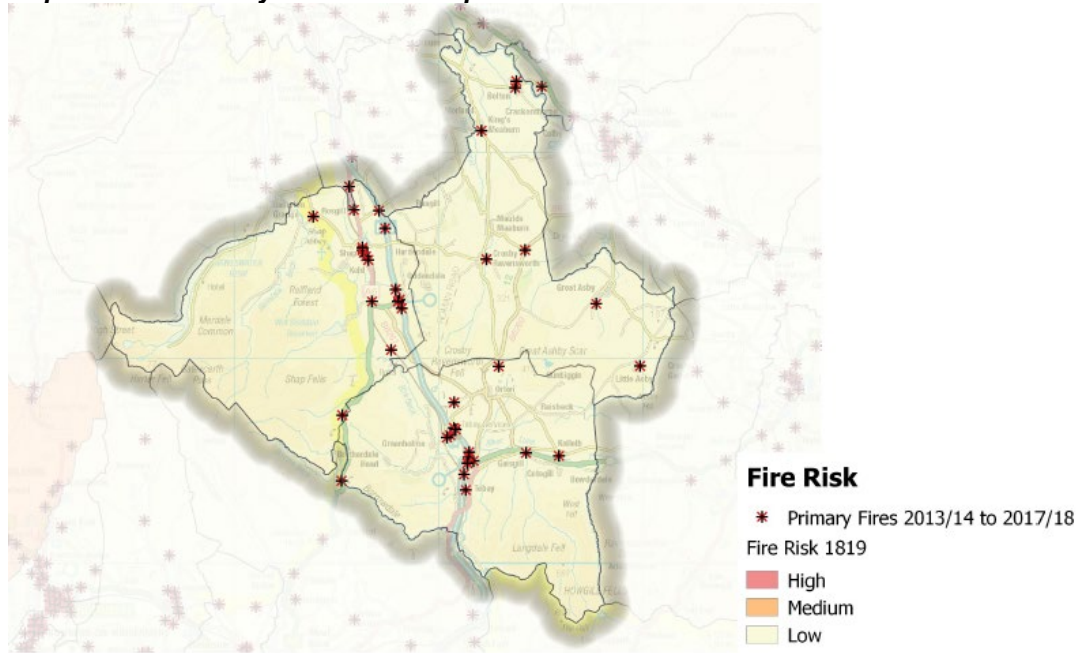
Table 2: 18/19 Primary Fire Risk – Shap

Shap Risk Profile		Incidents 2009/10 - 13/14		Incidents 2010/11 - 14/15		Incidents 2011/12 - 15/16		Incidents 2012/13 - 16/17		Incidents 2013/14 - 17/18	
		2014/15 Risk		2015/16 Risk		2016/17 Risk		2017/18 Risk		2018/19 Risk	
Score	Risk Grade	Risk Score	No of LSOAs	Risk Score	No of LSOAs	Risk Score	No of LSOAs	Risk Score	No of LSOAs	Risk Score	No of LSOAs
>=76	High	0	0	0	0	0	0	0	0	0	0
35- 75	Medium	0	0	0	0	0	0	0	0	0	0
<=34	Low	66	3	68	3	68	3	68	3	68	3
TOTAL		66	3	68	3	68	3	68	3	68	3

The map of Fire Risk below shows levels of Fire Risk by LSOA, with the last 5 years of primary fire incidents clustering within Shap town centre.

² Lower Super Output Areas are geographic areas created by the [Office for National Statistics](https://www.ons.gov.uk/methods/geography/other-geographies/lsoas) to support statistical analysis at a more detailed geographical level. Each LSOA is designed to have similar population sizes of up to 1,200 households.

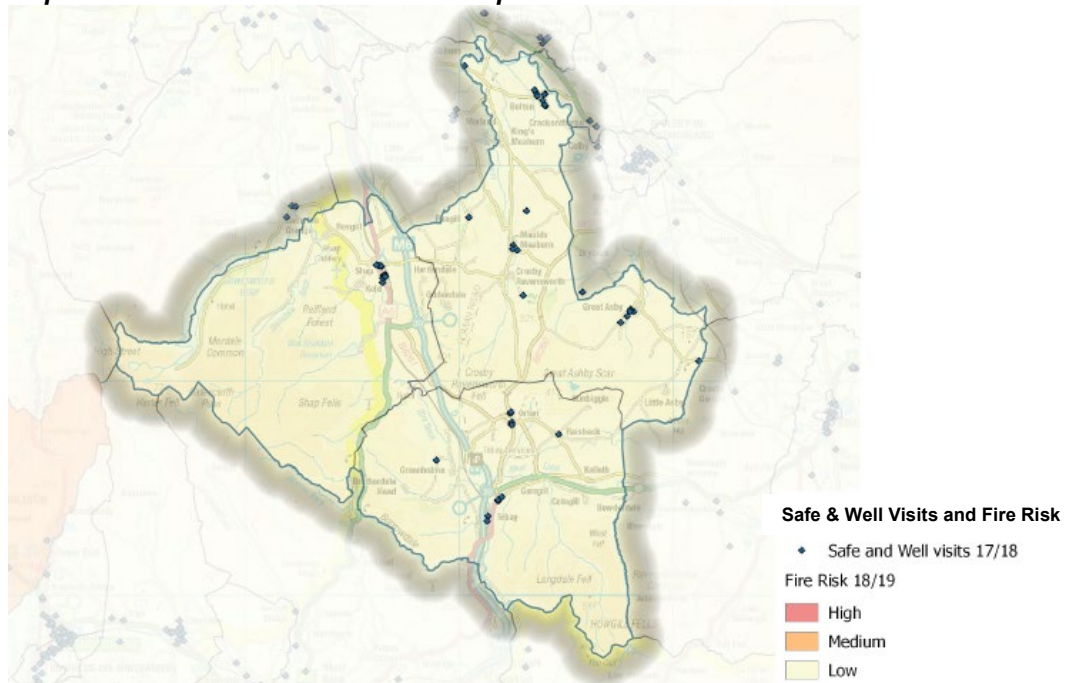
Map 1: 18/19 Primary Fire Risk –Shap



Prevention and Protection Activity

In April 2017 CFRS implemented their new Safe and Well visits. These are targeted at individual households that are high risk, rather than areas of high risk as previously targeted in the Home Safety Visits. In 2017/18 CFRS conducted 10, 432 Safe and Well visits across Cumbria.

Map 2: Safe and Well Visits 17/18 –Shap



Injury Road Traffic Collision Response Profile

Incident and Risk Profile

The Injury RTC risk modelling shows an increasing rate of risk for Shap Fire Station area. There is one LSOA that is high risk in 2018/19. The overall risk score increases from 240 in 2014/15 to 260 in 2018/19 – an increase of 8%

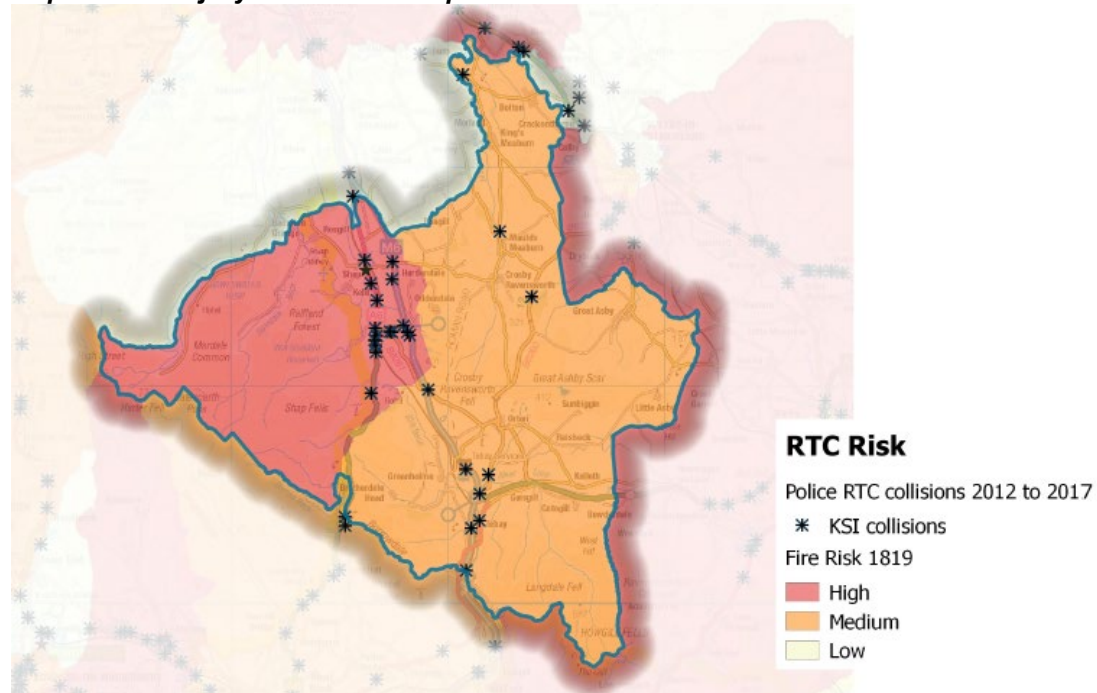
Table 3: 18/19 Injury RTC Risk – Shap

Shap Risk Profile		Incidents 2009/10 - 13/14		Incidents 2010/11 - 14/15		Incidents 2011/12 - 15/16		Incidents 2012/13 - 16/17		Incidents 2013/14 - 17/18	
		2014/15 Risk		2015/16 Risk		2016/17 Risk		2017/18 Risk		2018/19 Risk	
Score	Risk Grade	Risk Score	No of LSOA	Risk Score	No of LSOAs	Risk Score	No of LSOAs	Risk Score	No of LSOAs	Risk Score	No of LSOAs
100	High	100	1	100	1	100	1	100	1	100	1
24-100	Med	140	2	140	2	60	1	60	1	160	2
<=24	Low	0	0	0	0	36	1	48	1	0	0
TOTAL		240	3	240	3	196	3	208	321	260	3

Datasources: Cumbria Constabulary RTC Data, FireCore Incident data

The map below shows the risk levels by LSOA for Cumbria, overlaid with Killed/Seriously Injured (KSI) incidents between 2012 and 2017.

Map 3: 18/19 Injury RTC Risk – Shap



Prevention and Protection

CFRS provide Road Awareness Training (RAT) sessions targeted at drivers aged 18 to 25 years, as these are at highest risk of being involved in a collision. We also currently provide RAT sessions targeted at those aged 55 years and older.

In Eden District, 3 RAT sessions were provided throughout 2017/18 to a total of 120 attendees.

Table 4: Number of RAT sessions 2017/18 by District

Road Traffic Awareness Training Sessions completed 2017/18		
District	Number of RATs	Number attended
Allerdale	27	305
Barrow-in-Furness	7	257
Carlisle	24	629
Copeland	11	329
Eden	3	120
South Lakeland	10	507
Cumbria	82	2,147

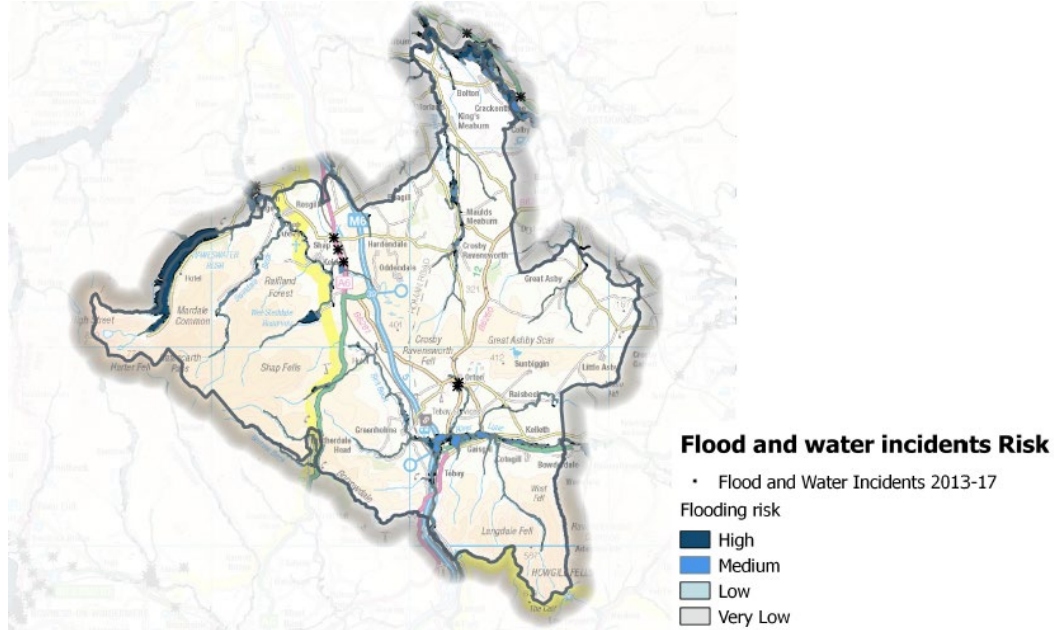
Datasource: CFRMIS

Flooding and Water Rescue - Response Profile

Incident and Risk Profile

Flood Risk is taken from the Environment Agency's Risk of Flooding from Rivers and Seas (Aug 2018). The risk of flooding is categorised into high, medium, low and very low areas. Incidents responded to by CFRS between 2013 and 2017 are overlaid on the risk areas.

Map 4: Risk Map of Flooding based on Rivers and Seas (Aug 2018) - Shap



Prevention and Protection Activity

The [Environment Agency's Cumbria Flood Action Plan](#) (1 June 2016) details 65 areas of action for implementation across Cumbria, Eden, Derwent and Kent and Leven Catchment areas. These proposed actions fall into five key themes

- Strengthening Defences
- Upstream Management
- Maintenance
- Resilience
- Water Level Management Boards

Full details of the Cumbria 2015 Flood Events are available in the [Flood Impact Assessment](#) Dec 2015.

Other Risk information

Shap village lies on the edge of the English Lake District and has a population of 1700. It is situated on the A6 road which is about two miles from the M6 motorway and near to the West Coast Mainline Railway.

Fire crews from Shap attend an assortment of house fires, vehicle fires, chimney fires and grass fires. They also attend flooding incidents and have been involved in the rescue of trapped farm animals. The majority of calls are to the M6 motorway attending road traffic collisions.

One of the most notable incidents the Shap crew attended was that of the RAF Hawk Jet that crashed on the railway bridge at the north end of the village killing both pilots.

Shap	Risk in station area
Heritage	<ul style="list-style-type: none"> • Shap Abbey • The Image Garden <p>Grade I listed:</p> <ul style="list-style-type: none"> • Church of St Lawrence, Crosby Ravensworth <p>Grade II* listed:</p> <ul style="list-style-type: none"> • Strickland Hall and stables adjoining, Little Strickland • 2 summer houses on bowling green immediately to south of Maulds Meaburn Hall, Maulds Meaburn • Maulds Meaburn Hall • Garden walls and gate piers to front of Maulds Meaburn Hall • Flass House, Maulds Meaburn • Newby Hall and area wall to north, Newby • Memorial to Thomas Lawson and shelter against east wall of Friends Burial Ground, Newby • Church of All Saints, Orton • Petty Hall, Orton • Reagill Grange, Reagill • Market Hall, Shap • Lune Viaduct at Newbys Dub, Firbank
Environment	<ul style="list-style-type: none"> • SAC: Naddle Forest (NY494144) • 7 site of Specific Scientific Interest
Site Specific Risks	<ul style="list-style-type: none"> • Shap Quarry (CORUS) Limestone • Shap Quarry (HANSON) Limestone + Tarmac plant • Shap Quarry (CEMEX) Granite + Tarmac plant • West Coast Main line
Rurality	<ul style="list-style-type: none"> • According to the DEFRA Urban/Rural classifications the 3 LSOAs that make up Shap all are 'Village and Hamlet'

Horizon Scanning

Risk and demand are constantly evolving across the county, and as such necessitate an evolving service to optimise efficiency and effectiveness. In the short to long-term a range of infrastructure and economic projects are anticipated across the county.

Currently there are no large infrastructure or economic projects planned within the Shap Fire Station area, however the neighbouring station area, Penrith, has:

Station	Project	Investment Impact
Penrith	Gillwilly Phase 2	Bring forward future development
Penrith	North Penrith	500 homes

Based on these economic and housing projects, Eden district's population is expected to remain relatively stable with projections of growth between 0% and +4% by 2023, which would lead to primary fires staying the same or increasing by 2. This would have no projected impact on fire casualty rates by 2023.