

Keswick Fire Station
Risk Based Evidence Profile 2018
Risk Review



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

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Contents

Introduction	3
Station Area and Resources.....	4
Fire Engine Availability	5
Station Fire Engine Response Times.....	5
Station Area Response Priorities.....	6
Primary Fire Response Profile.....	7
Incident and Risk Profile	7
Prevention and Protection Activity	8
Injury Road Traffic Collision Response Profile.....	9
Incident and Risk Profile	9
Prevention and Protection.....	10
Flooding and Water Rescue - Response Profile	11
Incident and Risk Profile	11
Prevention and Protection Activity	11
Other Risk information.....	12
Horizon Scanning.....	13

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 Keswick. A map of the 'station area¹' is shown below. The station in 17/18 was crewed by 14 firefighters working the On-call duty system.



Station Area	6,800 population
Crewing Type	On-call
Fire Engines	1 fire engine and 1 Wildfire Land rover

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

Station Name	Distance by Road (MILES)
Penrith	17 miles
Cockermouth	14 miles
Ambleside	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 Keswick On-call fire engine had been off duty for 0.55% of the time.

C07P1	2015/16	2016/17	2017/18
Total Availability	99.50%	96.39%	99.45%
Mon - Fri (08:00 - 18:00)	99.33%	93.04%	99.53%
Mon - Thurs (18:00 - 08:00)	99.97%	99.61%	99.85%
Fri - Mon (18:00 - 08:00)	99.22%	96.21%	99.04%

Station Fire Engine Response Times

Keswick 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 Keswick On-call fire engine (C07P1) had the following response times below

C07P1	2015/16	2016/17	2017/18
Average crew turnout time (time it takes the crew to respond to the station)	4 mins 14 secs	4 mins 16 secs	4 mins 53 secs
Average response time (time it takes the crew to arrive at the incident from the station)	5 mins 05 secs	8 mins 24 secs	7 mins 45 secs
Number of incidents attended by fire engine C07P1	112	79	70

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: Keswick

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	107	64	60	1	1	1	1.3	-	1	1	2.5	n/a	↓
Injury Road Traffic Collisions ¹	3	3	2	1	1	1	37.5	2	3	-	62.5	Very High	↓
Primary Fires ²	19	11	3	-	-	-	0.0	-	-	-	0.0	Very High	↓
Flooding and water incidents	31	3	3	-	-	-	0.0	-	-	-	0.0	High	↓
Gas incl Carbon Monoxide	-	-	-	-	-	-	0.0	-	-	-	0.0	Medium	↔
Automatic Fire Alarms	43	38	40	-	-	-	0.0	-	-	-	0.0	Standard	↓
Wildfires ⁴	-	1	1	-	-	-	0.0	-	-	-	0.0	Standard	↑
Animal Assistance Incidents	-	1	1	-	-	-	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 60 incidents within Keswick Fire Station area with 2 fatalities. This included 2 Injury RTCs, 3 primary fires and 3 flooding and water incidents.

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 in RBEP 2018.

The fire risk model shows decreasing fire risk for Keswick Fire Station with no high level risk LSOAs, and overall risk score decreasing from 150 in 2014/15 to 128 in 2017/18, a decrease of 15%.

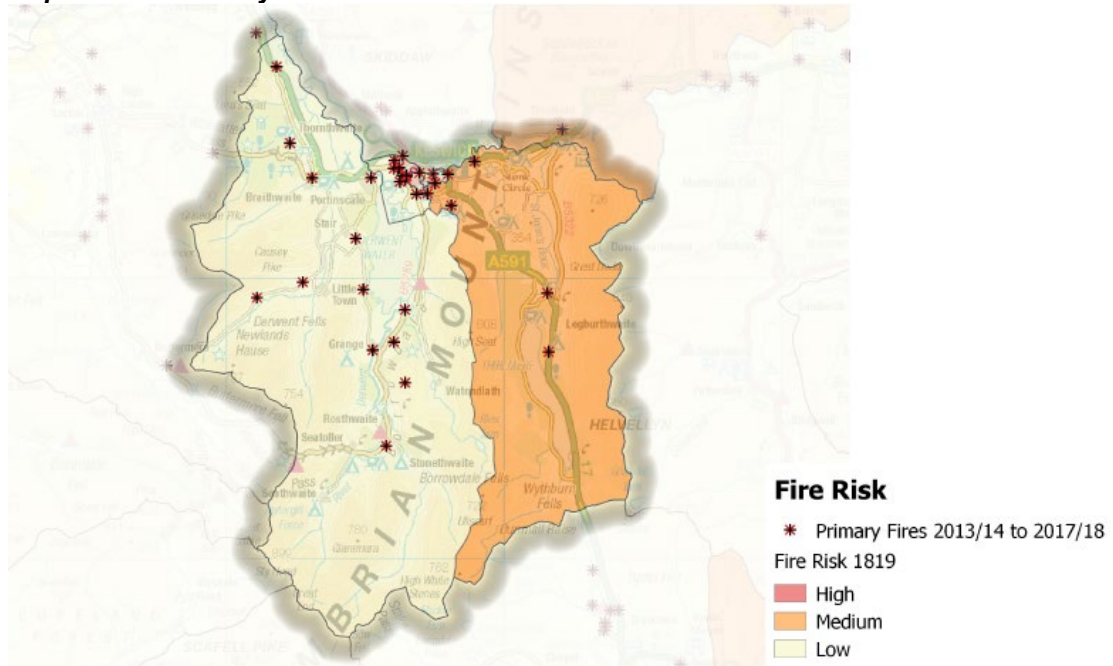
Table 2: 18/19 Primary Fire Risk – Keswick

Keswick 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	64	1	60	1	48	1	48	1	48	1
<=34	Low	86	4	78	4	80	4	80	4	80	4
TOTAL		150	5	138	5	128	5	128	5	128	5

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

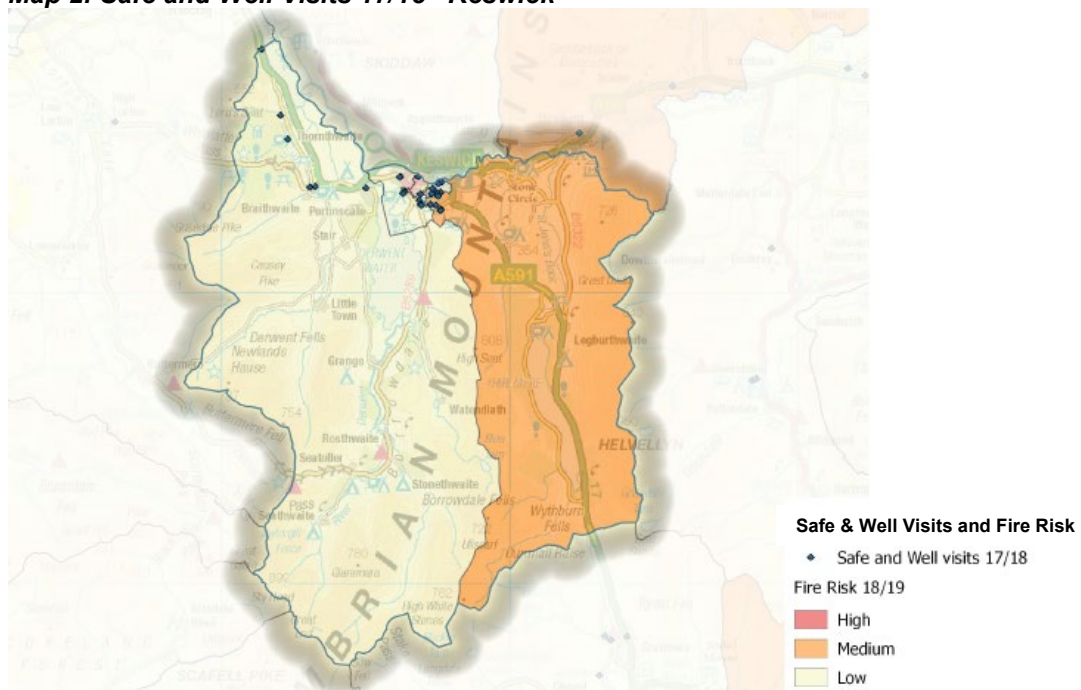
Map 1: 18/19 Primary Fire Risk –Keswick



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 –Keswick



Injury Road Traffic Collision Response Profile

Incident and Risk Profile

The Injury RTC risk modelling shows an increasing rate of risk for Keswick Fire Station area. There is one LSOA that is high risk in 2018/19. The overall risk score increases from 288 in 2014/15 – an increase of 13%

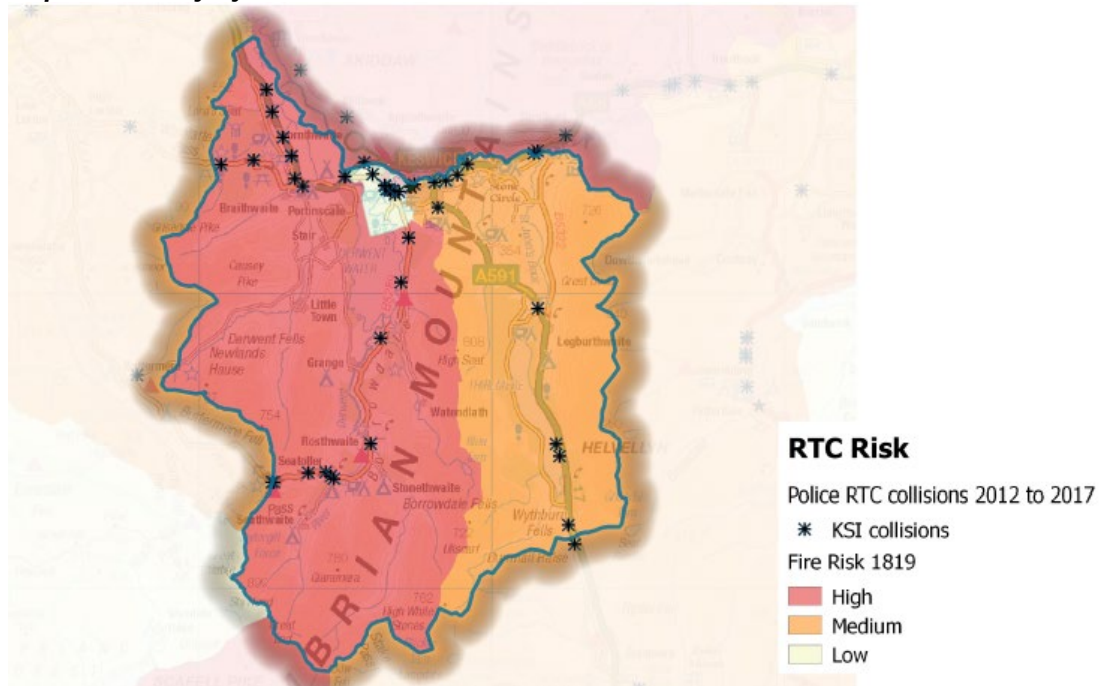
Table 3: 18/19 Injury RTC Risk – Keswick

Keswick 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	200	2	200	2	200	2	100	1	100	1
24-100	Med	80	1	144	2	144	2	224	3	204	3
<=24	Low	8	2	4	1	36	1	48	1	20	1
TOTAL		288	5	348	5	380	5	372	321	324	5

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 – Keswick



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 Allerdale District, 27 RAT sessions were provided throughout 2017/18 to a total of 305 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

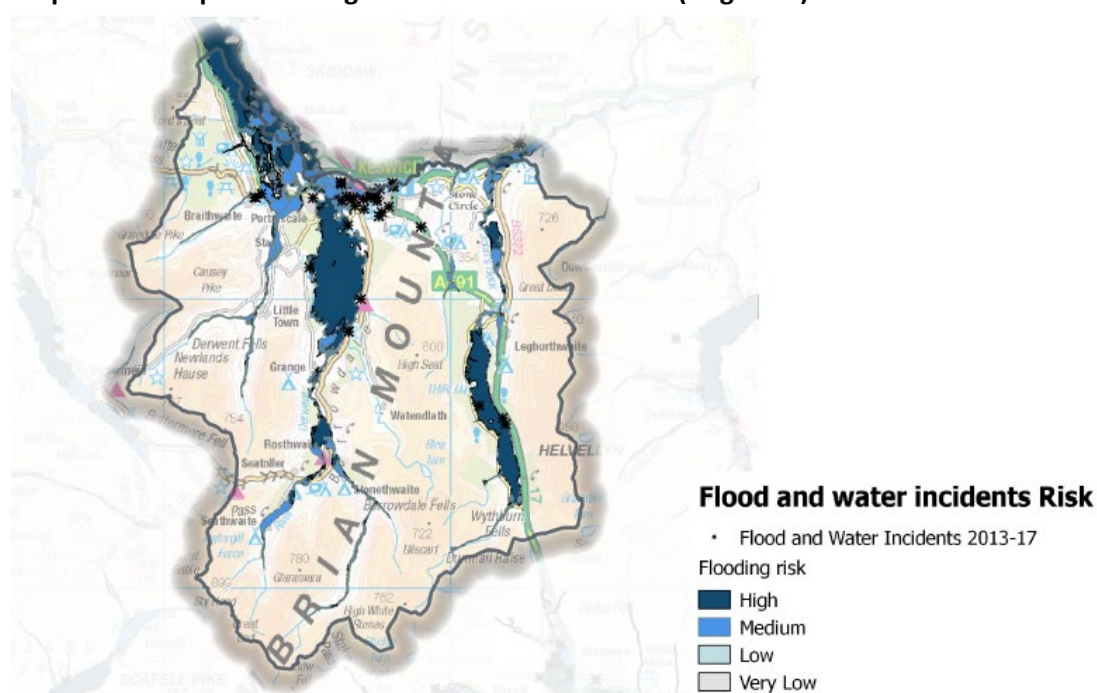
Flooding and Water Rescue - Response Profile

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.

Keswick Ward has the second highest percentage of flood and water related incidents (3.2) over the last 5 years across Cumbria.

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



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

The town of Keswick lies in the heart of the Lake District and is very popular with holiday makers and people coming for long weekends. The influx of tourists often increases the town's population threefold at the height of the season, filling many of the hotels and guest houses, significantly increasing the sleeping risk.

The main risks are associated with residential properties, hotels, guest houses and other types of holiday accommodation. However, other risks include large volumes of traffic on the predominantly 'B' type roads and the busy Penrith to Workington A66, which increases the potential for road traffic collisions. Open farmland brings the danger of barn and heath fires, in addition to other farm incidents, such as livestock rescues. With three major lakes within the station area, the potential for water rescue incidents is high, as is the possibility of flooding which has resulted in some significant rescue operations in recent years.

Keswick	Risk in station area
Heritage	<ul style="list-style-type: none"> • Castle Rigg Stone Castle • Derwent Island House • Mire House • Force Crag Mine • Threlkeld Settlement <p>Grade I listed:</p> <ul style="list-style-type: none"> • Greta House (formerly Greta Hall), Keswick <p>Grade II* listed:</p> <ul style="list-style-type: none"> • Church Of St Bega, Bassenthwaite • Mirehouse, Bassenthwaite • Orthwaite Hall and adjoining Barn • The Moot Hall, Main Street, Keswick • Church of St John, Keswick • Church of St Kentigern, Church Lane, Gt Crosthwaite • Millbeck Hall and adjoining Barn, Millbeck
Environment	<ul style="list-style-type: none"> • Special Areas of Conservation: Borrowdale Woods (NY 235129), High Fells (NY 303318), River Derwent (NY262207), Tarn Moss (NY400274) Plus 32 Sites of Specific Scientific Interest
Site Specific Risks	<ul style="list-style-type: none"> • Derwent Isle
Rurality	<ul style="list-style-type: none"> • In Keswick there are 5 LSOAs 3 can be described as 'Town and Fringe' according to DEFRA Urban/Rural classifications and 2 as '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.

There are two key infrastructure projects within Keswick's neighbouring Fire Station area, Aspatria:

- A595 Corridor Enhancements – improvements to the A595 to support economic growth across West Cumbria, leading to a projected increase in traffic within the station area
- Cumbrian Coastal Railway Enhancements – Improvements to the railway to increase capacity, usage and resilience of the line through the area.

Based on economic and housing projects across Cumbria, Allerdale district's population is expected to remain relatively stable with projections of growth between -1% and +4% by 2023, which would lead to primary fires dropping by 3 or increasing by 24. This would have no projected impact on fire casualty rates by 2023.