

Penrith 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 Penrith. A map of the 'station area¹' is shown below. The station in 17/18 was crewed by 17 firefighters working the On-call duty system and 7 regular firefighters working a day shift pattern.



Station Area	24,200 population
Crewing Type	Day Crewed (9am to 5pm) and On-call
Fire Engines	2 fire engines, 1 water browser, 1 National Resilience Enhance Logistics Vehicle, 1 Environmental Protection Unit, Breathing Apparatus Support Vehicle, 1 Joint Incident Control Unit and 1 Training Appliance

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

Station Name	Distance by Road (MILES)
Lazonby	9 miles
Shap	10 miles
Appleby	13 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 Penrith Day Crewed fire engine had been off duty for 0% of the time.

C27P1	2015/16	2016/17	2017/18
Total Availability	100%	100%	100%
Mon - Fri (08:00 - 18:00)	99.81%	100%	100%
Mon - Thurs (18:00 - 08:00)	100%	100%	100%
Fri - Mon (18:00 - 08:00)	99.91%	100%	100%

During 2017/18 the Penrith On-call fire engine had been off duty for 6.81% of the time.

C27P2	2015/16	2016/17	2017/18
Total Availability	89.65%	87.09%	93.19%
Mon - Fri (08:00 - 18:00)	89.01%	90.60%	94.05%
Mon - Thurs (18:00 - 08:00)	96.11%	94.24%	97.22%
Fri - Mon (18:00 - 08:00)	84.30%	77.84%	88.89%

Station Fire Engine Response Times

Penrith fire engines have 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 Penrith Day Crewed fire engine (C27P1) had the following response times below

C27P1	2015/16	2016/17	2017/18
Average crew turnout time (time it takes the crew to respond to the station)	3 mins 45 secs	4 mins 21 secs	3 mins 47 secs
Average response time (time it takes the crew to arrive at the incident from the station)	7 mins 2 secs	8 mins 59 secs	10 mins 55 secs
Number of incidents attended by fire engine C62P1	272	290	288

Between 2015/16 and 2017/18 the Penrith On-call fire engine (C27P2) had the response times below.

C27P2	2015/16	2016/17	2017/18
Average crew turnout time (time it takes the crew to respond to the station)	8 mins 20 secs	6 mins 51 secs	6 mins 3 secs
Average response time (time it takes the crew to arrive at the incident from the station)	7 mins 0 secs	9 mins 50 secs	10 mins 44 secs
Number of incidents attended by fire engine C62P2	99	89	102

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: Penrith

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	217	221	207	3	2	-	0.8	5	8	6	2.9	n/a	↓
Injury Road Traffic Collisions ¹	7	8	6	1	-	-	4.8	5	7	4	76.2	Very High	↓
Primary Fires ²	32	35	27	-	2	-	2.1	-	-	1	1.1	Very High	↓
Flooding and water incidents	19	3	1	-	-	-	0.0	-	-	-	0.0	High	↓
Gas incl Carbon Monoxide	-	-	-	-	-	-	0.0	-	-	-	0.0	Medium	↔
Automatic Fire Alarms	116	125	112	-	-	-	0.0	-	-	-	0.0	Standard	↓
Wildfires ⁴	-	2	-	-	-	-	0.0	-	-	-	0.0	Standard	↓
Animal Assistance Incidents	-	3	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 207 incidents within Penrith Fire Station area with 11 seriously injured casualties. This included 6 Injury RTCs, 27 primary fires and 1 flooding and water incident.

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 decreasing fire risk for Penrith Fire Station with no high level risk LSOAs, and overall risk score decreasing from 468 in 2014/15 to 454 in 2018/19, a decrease of 3%.

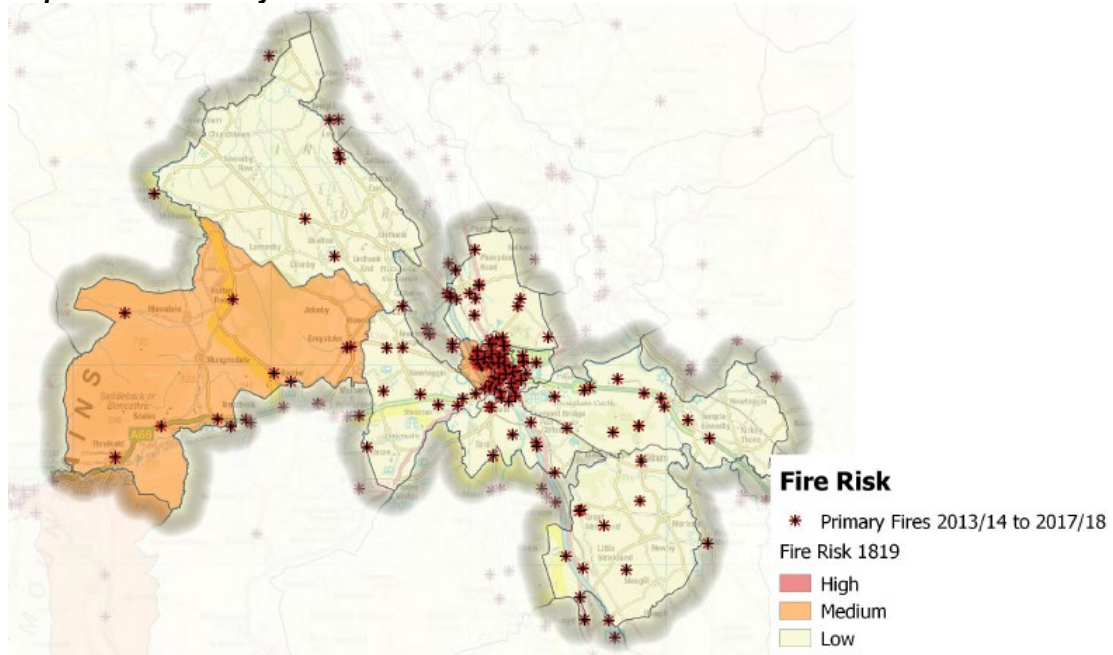
Table 2: 18/19 Primary Fire Risk – Penrith

Penrith 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	176	4	228	5	214	5	222	5	142	3
<=34	Low	292	13	272	12	252	12	252	12	312	14
TOTAL		468	17	500	17	466	17	474	17	454	17

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

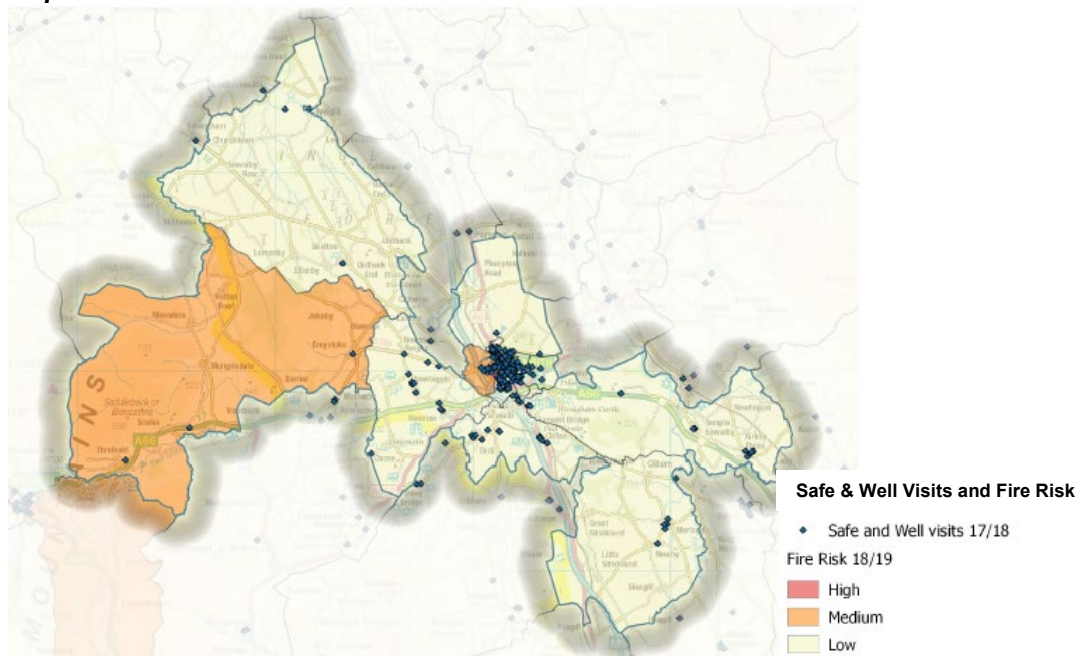
Map 1: 18/19 Primary Fire Risk –Penrith



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 –Penrith



Injury Road Traffic Collision Response Profile

Incident and Risk Profile

The Injury RTC risk modelling shows an increasing rate of risk for Penrith Fire Station area. There are 5 LSOA that are high risk in 2018/19. The overall risk score increases from 876 in 2014/15 to 924 in 2018/19 – an increase of 5%

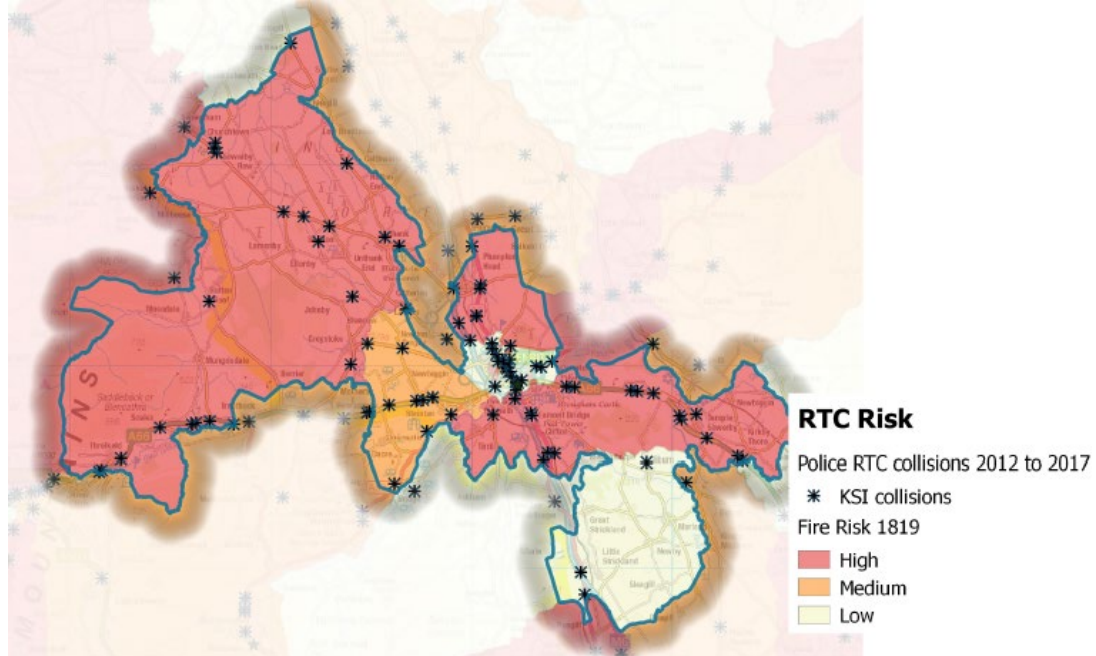
Table 3: 18/19 Injury RTC Risk – Penrith

Penrith 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	300	3	400	4	400	4	500	5
24-100	Med	548	8	504	7	524	7	400	5	204	3
<=24	Low	228	8	172	7	96	6	188	8	220	9
TOTAL		876	17	976	17	1020	17	988	321	924	17

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 – Penrith



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

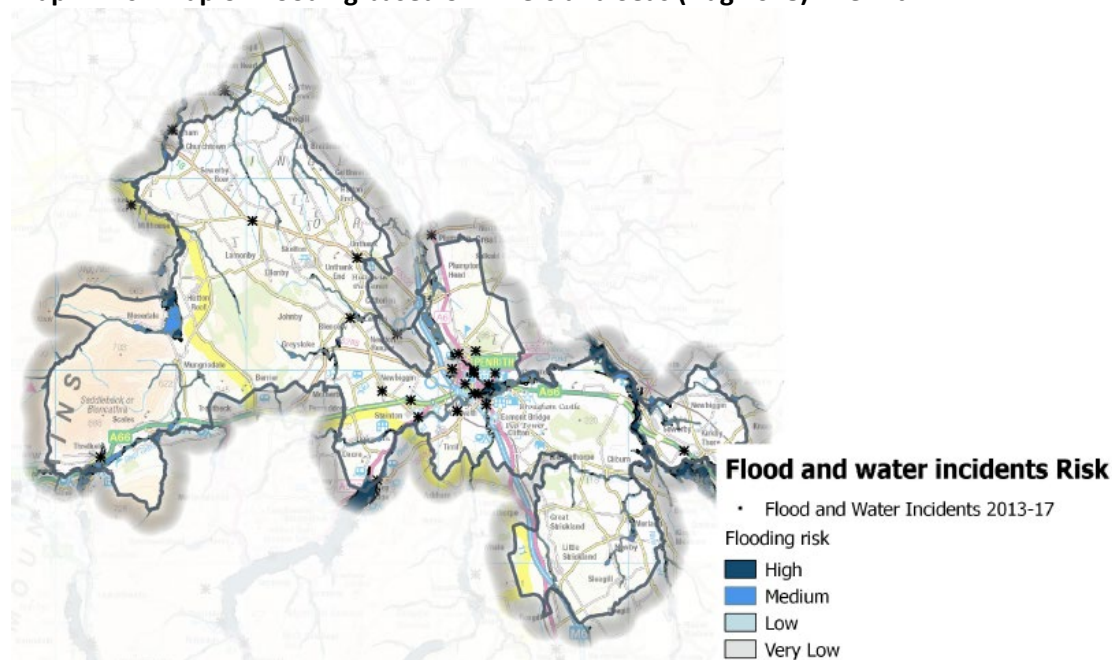
Datasource: CFRMIS

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) - Penrith



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

Penrith is situated at the crossroads of the M6 and the A66 within the Eden valley just north of the River Eamont which has caused severe flooding incidents over recent years.

Penrith has a rich history. It was in the 9th and 10th century that the town became the capital of Cumbria, a semi-dependant state which until 1070 AD formed part of the Kingdom of Scotland & Strathclyde. The two oldest streets, Burrowgate and Sandgate, date from the 13th Century and there are additional significant heritage buildings within the station area.

The risks within the town, are both residential and commercial and with major roads being major arterial ways for the County, an ever increasing number of road traffic collisions are now being attended.

The station provides cover also to a large remote rural area covering approximately 37,500 hectares.

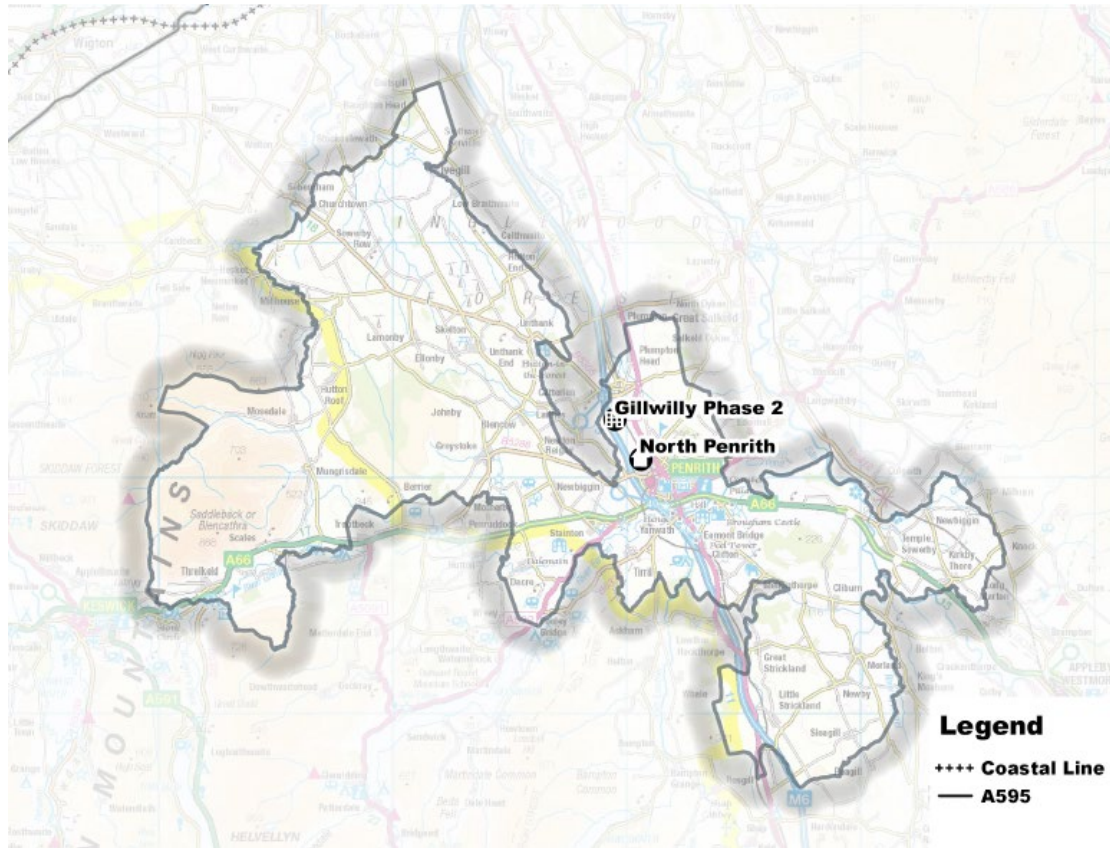
Penrith	Risk in station area
Heritage	<ul style="list-style-type: none"> • Brougham Castle • Clifton Hall • Countess Pillar • King Arthur's Table • Mayburgh Henge • White Raise Cairn • Lowther Castle <p>Grade I listed:</p> <ul style="list-style-type: none"> • Askham Hall, Askham • Church of St Michael, Barton • Church of St Andrew, Dacre • Dacre Castle, Dacre • Dalemain • Eamont Bridge, Eamont Bridge • Church of St Cuthbert, Edenhall • Gloucester Arms, Great Dockray, Penrith • Hutton-In-The-Forest-Hall (including Garden wall and gateway east of), • Hutton-In-The-Forest • Blencow Hall Farmhouse and gatehouse wing, Little Blencow • Church of St Laurence, Morland • Catterlen Hall, Newton Reigny • Church of St Ninian, Ninekirks • Beacon Tower, Penrith • Penrith Castle, Penrith • Parish Church of St Andrew, Penrith • Scales Hall and barn adjoining; Gatehouse and curtain wall of Scales • Hall, Scales • Acorn Bank House, Temple Sowerby

Penrith	Risk in station area
	<ul style="list-style-type: none"> • Yanwath Hall (including Courtyard range adjoining), Yanwath Plus over 70 Grade II* listed buildings
Environment	<ul style="list-style-type: none"> • Special Area of Conservation: River Eden (NY462237) • 14 sites of Specific Scientific Interest
Site Specific Risks	<ul style="list-style-type: none"> • Ullswater Pumping Station • Frank Bird Poultry LTD • AW Jenkinson • Omega Proteins (Wildriggs) • Carrs Billington Agriculture • Rheged
Rurality	<ul style="list-style-type: none"> • Of the 17 LSOAs that make up Penrith the majority are designated 'Urban' according to DEFRA Urban/Rural classifications and 6 '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. Those that are planned within the Penrith Fire Station area are shown below.

Map 5: Future Projects and Developments within Penrith Station Area



Currently there are 2 infrastructure projects within Penrith station area:

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.