

**Carlisle West Fire Station**  
**Risk Based Evidence Profile 2018**  
**Risk Review**



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

**September 2018**

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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).

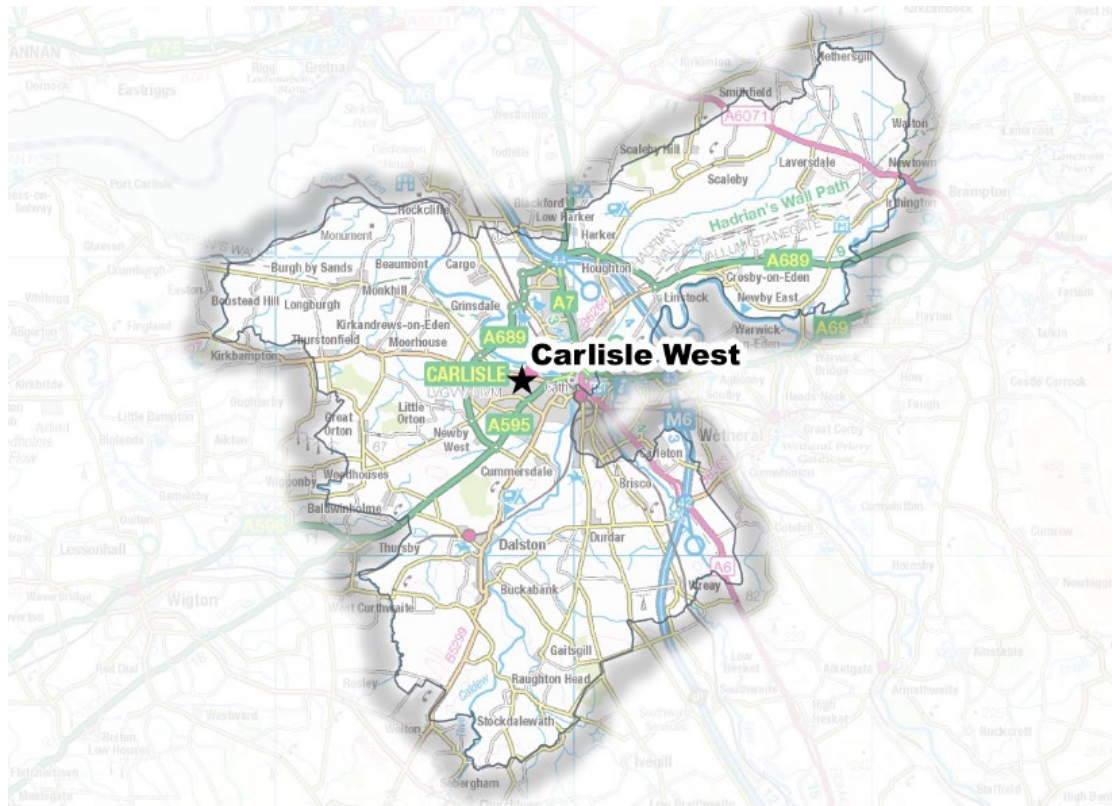
The RBEP 2018 is developed to support the Integrated Risk Management Plan (IRMP) 2019-23. The purpose of the IRMP 19-23 is to identify and assess fire and rescue related risks for the next four years, and set out what the service is going to do to address them.

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 the west of Carlisle. A map of the 'station area'<sup>1</sup> is shown below. The station in 17/18 was crewed by 22 regular firefighters.



Station Area	46,500 population
Crewing Type	Regular
Fire Engines	1 Enhanced Rescue Pump

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

Station Name	Distance by Road (MILES)
Carlisle East	4 miles
Longtown	10 miles
Brampton	11 miles

<sup>1</sup> 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 Carlisle West regular fire engine had been off duty for 0% of the time.

C21P1	2015/16	2016/17	2017/18
Total Availability	100%	100%	100%
Mon - Fri (08:00 - 18:00)	100%	100%	100%
Mon - Thurs (18:00 - 08:00)	100%	100%	100%
Fri - Mon (18:00 - 08:00)	100%	100%	100%

## Station Fire Engine Response Times

Carlisle West 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 Carlisle West regular fire engine (C21P1) had the following response times below

C21P1	2015/16	2016/17	2017/18
Average crew turnout time (time it takes the crew to respond to the station)	1 min 15 secs	1 min 20 secs	1 min 14 secs
Average response time (time it takes the crew to arrive at the incident from the station)	5 min 25 secs	6 min 27 secs	6 min 58 secs
Number of incidents attended by fire engine C21P1	593	562	488

## 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: Carlisle West**

Fire, Rescue and Road Safety Priorities 2018/19	Incidents			Fatalities				Seriously Injured Casualties				PRIORITY	2017/18 compared to 3yr average <sup>3</sup>
	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	466	410	348	4	1	4	0.7	4	1	1	0.5	n/a	↓
Injury Road Traffic Collisions <sup>1</sup>	8	5	9	1	1	2	18.2	3	-	1	18.2	Very High	↑
Primary Fires <sup>2</sup>	75	63	62	1	-	-	0.5	-	-	-	0.0	Very High	↓
Flooding and water incidents	34	9	8	-	-	-	0.0	-	-	-	0.0	High	↓
Gas incl Carbon Monoxide	-	2	2	-	-	-	0.0	-	-	-	0.0	Medium	↑
Automatic Fire Alarms	221	182	169	-	-	-	0.0	-	-	-	0.0	Standard	↓
Wildfires <sup>4</sup>	-	-	-	-	-	-	0.0	-	-	-	0.0	Standard	↔
Animal Assistance Incidents	2	3	3	-	-	-	0.0	-	-	-	0.0	Standard	↑

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

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

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

<sup>3</sup>Increase or decrease if greater than 5% of three year average

<sup>4</sup>Wildfire 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 348 incidents within Carlisle West Station area with 6 fatalities. This included 9 Injury RTCs, 62 primary fires and 8 flooding and water incidents.

CFRS Risk Profile identifies the levels of risk within an area (Lower Super Output Area<sup>2</sup>) 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.

The fire risk model shows decreasing fire risk for Carlisle West Fire Station with one high level risk LSOAs, and overall risk score decreasing from 978 in 2014/15 to 898 in 2018/19, a decrease of 8%.

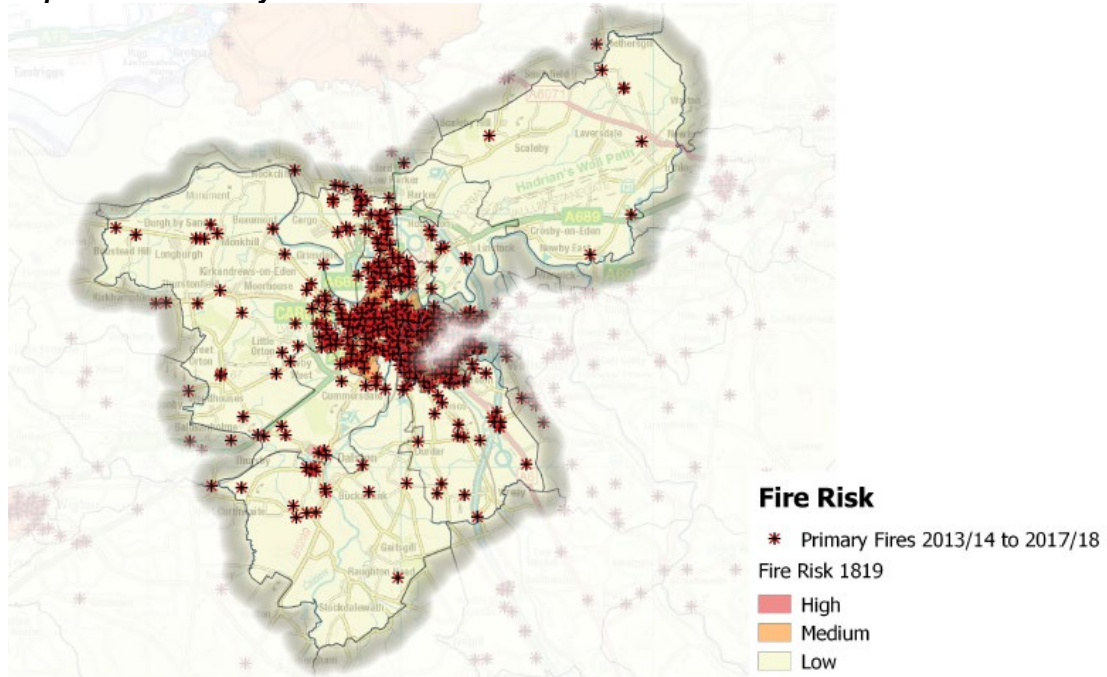
**Table 2: 18/19 Primary Fire Risk – Carlisle West**

Carlisle West 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	152	2	0	0	78	1	78	1	80	1
35- 75	Medium	436	9	450	9	390	8	412	9	364	8
<=34	Low	390	17	448	19	454	19	436	18	454	19
<b>TOTAL</b>		<b>978</b>	<b>28</b>	<b>898</b>	<b>28</b>	<b>922</b>	<b>28</b>	<b>926</b>	<b>28</b>	<b>898</b>	<b>28</b>

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

<sup>2</sup> 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.

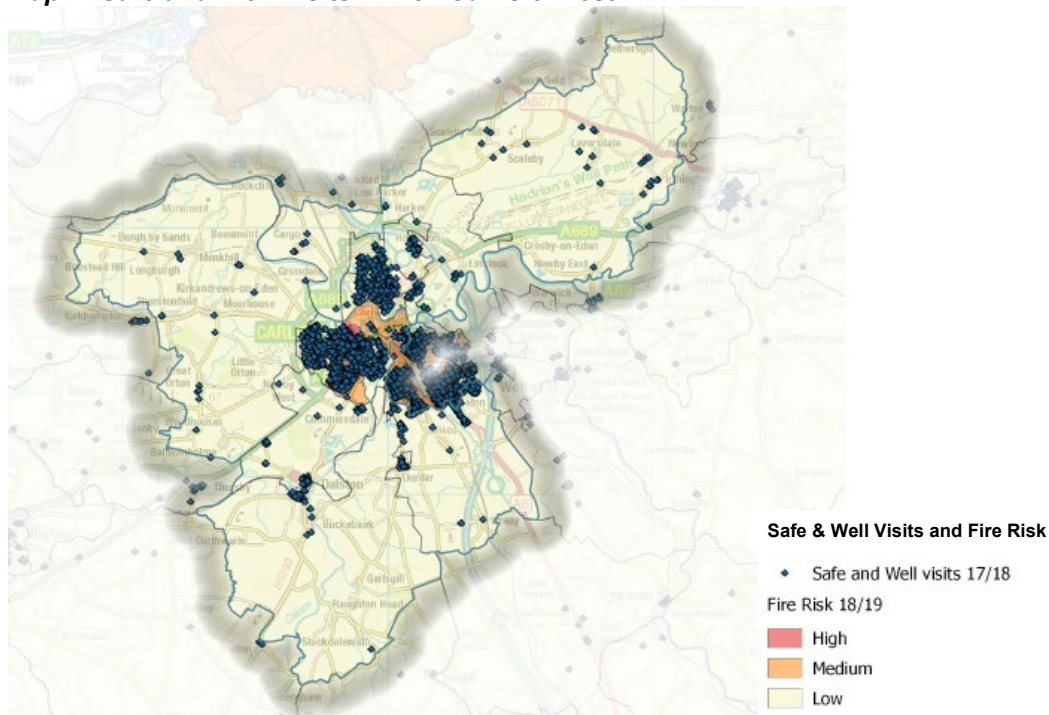
**Map 1: 18/19 Primary Fire Risk –Carlisle West**



**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 –Carlisle West**





## Injury Road Traffic Collision Response Profile

### Incident and Risk Profile

The Injury RTC risk modelling shows an increasing rate of risk for Carlisle West Fire Station area. There are no high risk LSOAs in Carlisle West station area in 2018/19. However, the overall risk score increases from 920 in 2014/15 to 1016 in 2018/19 – an increase of 10%

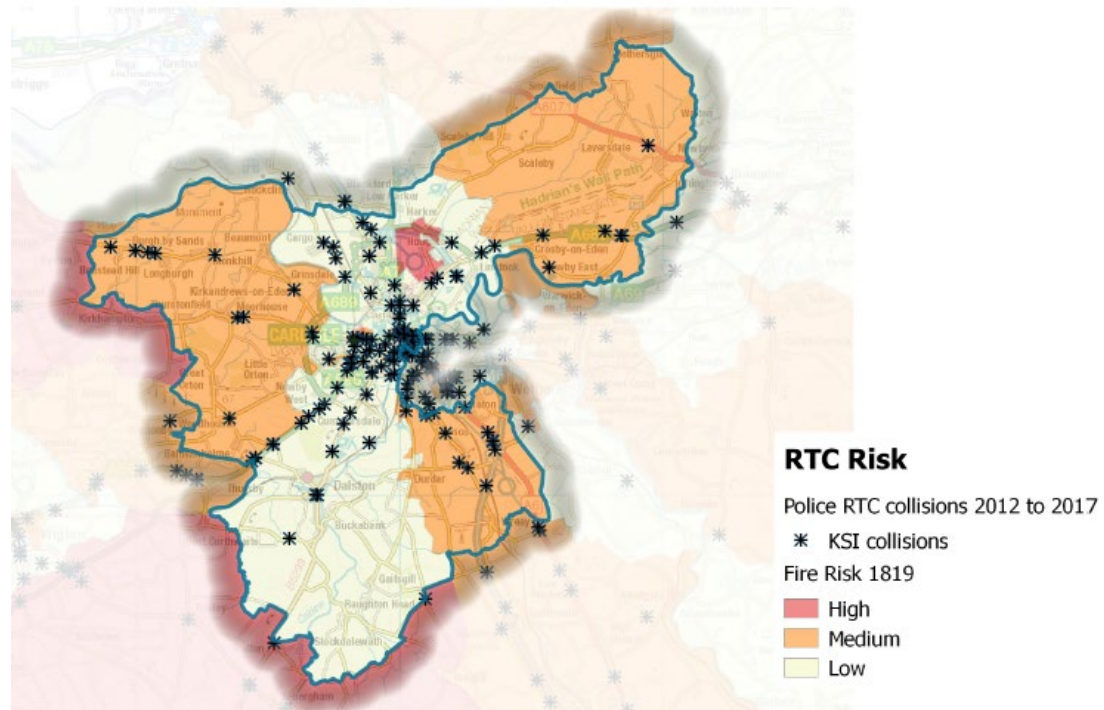
**Table 3: 18/19 Injury RTC Risk – Carlisle West**

Carlisle West 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	0	0	0	0	100	1	0	0	0	0
24-100	Med	524	7	480	6	588	8	724	10	484	7
<=24	Low	396	21	388	22	332	19	320	18	532	21
<b>TOTAL</b>		<b>920</b>	<b>28</b>	<b>868</b>	<b>28</b>	<b>1020</b>	<b>28</b>	<b>1044</b>	<b>321</b>	<b>1016</b>	<b>28</b>

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 – Carlisle West**



## 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 Carlisle District, 24 RAT sessions were provided throughout 2017/18 to a total of 629 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
<b>Cumbria</b>	<b>82</b>	<b>2,147</b>

*Datasource: CFRMIS*

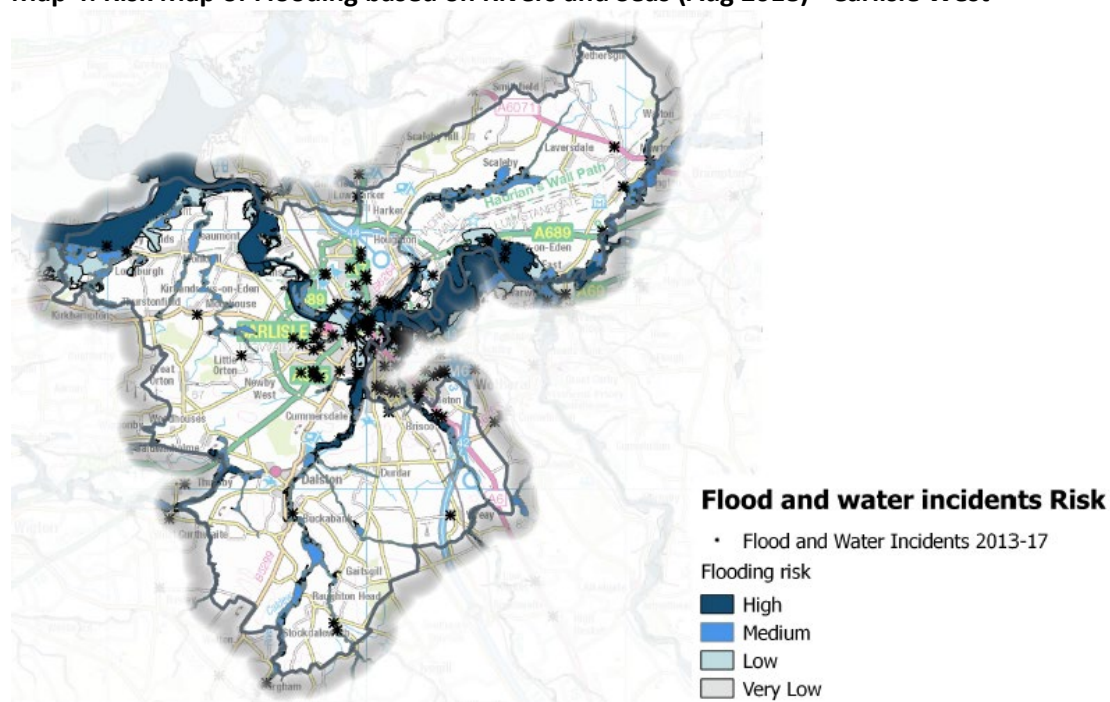
## Flooding and Water Rescue - Response Profile

### 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.

Castle Ward has the 3<sup>rd</sup> highest percentage of flood and water related incidents (2.5%) over the last 5 years across Cumbria.

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



### 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 city of Carlisle is situated in the north of the county near to the Scottish border it is a city that is steeped in history and has many historical monuments including Carlisle Castle, the Cathedral and the Citadel which was built by Henry VIII. Although Carlisle is 2,000 years-old, it is a modern, thriving city offering shopping, entertainment, sports and sightseeing. It is the home of Carlisle United Football Club, an award winning museum and art gallery and the World Heritage site of Hadrian's Wall.

It is an important junction point for some of the county's main transport routes such as the West Coast Rail Line, the M6 Motorway, the A69 and the A595 which join together the North East of England and West Cumbria with Scotland and the North West of England. The City has a number of industrial estates, including Kingstown and Rosehill, both of which are home to many different commercial premises.

The Lanes Shopping Centre, in the heart of the city, has over 75 retailers under one roof. It is home to familiar high street names as well as a flagship Debenhams store. The Victorian Market Hall has independent specialist storeholders and a regular weekend farmer's market. Carlisle is split into 12 urban wards, has the largest population in the county nearing 102,000 people, has eight secondary school and a major hospital, an airport to the east of the city and the Sands Centre which is Cumbria's premier live arts venue.

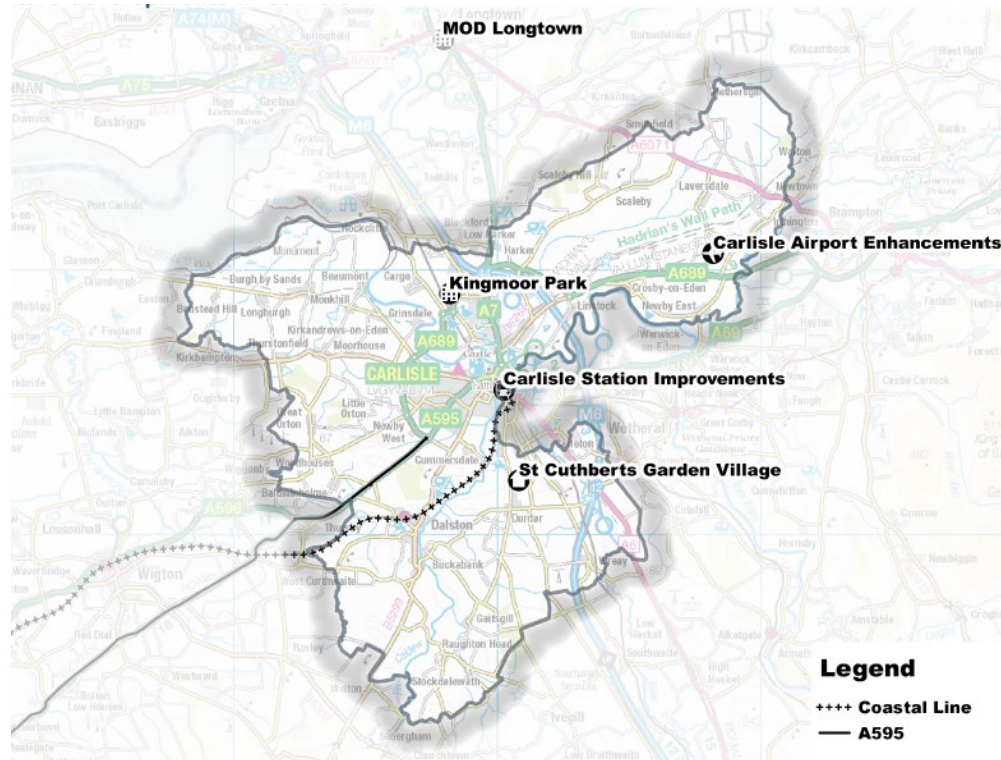
Carlisle East	Risk in station area
Heritage	<ul style="list-style-type: none"> <li>• Carlisle Castle</li> <li>• Wetheral Priory</li> <li>• Carlisle Cathedral</li> <li>• Dalston Road Cemetery</li> </ul> <p><b>Grade I listed:</b></p> <ul style="list-style-type: none"> <li>• Church of St Michael</li> <li>• Crown Court, adjoining offices and gate arch</li> <li>• Nisi Prius Courthouse, associated offices and gate arch</li> <li>• De Irebys Tower and outer bailey wall</li> <li>• Eden Bridge</li> <li>• Captains Tower and Inner Bailey Walls</li> <li>• Market Cross</li> <li>• Cathedral Church of the Holy and Undivided Trinity</li> <li>• Nos 5 and 6 Green Market</li> <li>• Nos 10-22 (Even) West Walls incorporating city walls</li> <li>• Wall, gates and railings in front of Tullie House</li> <li>• Bridge over outer Moat</li> <li>• No 15, Tullie House and extensions</li> <li>• Tithe Barn</li> <li>• Old Town Hall</li> <li>• West City Walls</li> <li>• Nos 5, 5A and 5B The Abbey, The Deanery and Prior's Tower</li> <li>• Inner Bailey: Keep</li> <li>• Abbey Gate and Gatehouse</li> <li>• Inner Bailey: Palace Range including part of Queen Mary's</li> </ul>

Carlisle East	Risk in station area
	<p>Tower</p> <ul style="list-style-type: none"> <li>• Ruins of Dormitory of former Priory of St Mary</li> <li>• Fraternity of former Priory of St Mary</li> <li>• West City Walls and Tile Tower adjoining at south-west</li> <li>• Fragment of north City Walls adjoining south-east angle</li> <li>• Outer Bailey: Half-Moon Battery, Flanking Wall and Bridge</li> </ul> <p>Dalston:</p> <ul style="list-style-type: none"> <li>• Curtain Walls surrounding Rose Castle</li> <li>• Gate with flanking lodge and tower, to north of Rose Castle</li> <li>• Rose Castle</li> </ul> <p>Great Corby:</p> <ul style="list-style-type: none"> <li>• Kitchen garden walls to south-east of Corby Castle</li> <li>• Gate Lodge to east of Corby Castle</li> <li>• Wall and gate piers to East of Corby Castle</li> <li>• Cascade to west of Corby Castle</li> <li>• Dovecote to south-east of Corby Castle</li> <li>• Salmon coops to South of Corby Castle</li> <li>• Tempietto, Corby Castle</li> <li>• Corby Castle</li> </ul> <p>Highbridge:</p> <ul style="list-style-type: none"> <li>• Thistlewood Farmhouse</li> </ul> <p>Kirkbampton:</p> <ul style="list-style-type: none"> <li>• Church of St Peter</li> </ul> <p>Rockcliffe:</p> <ul style="list-style-type: none"> <li>• Churchyard Cross, south of Church of St Mary</li> </ul> <p>Wetheral:</p> <ul style="list-style-type: none"> <li>• Walls of east range of Wetheral Priory, east of Gatehouse <ul style="list-style-type: none"> <li>• Wetheral Priory Gatehouse</li> </ul> </li> <li>• Corby Bridge</li> <li>• St Constantine's Cells</li> </ul> <p>Plus over 50 Grade II* listed buildings</p>
Environment	<ul style="list-style-type: none"> <li>• Special Protected Area: Rockcliffe Marsh (NY087577)</li> <li>• 9 Site of Specific Scientific Interest</li> </ul>
Site Specific Risks	<ul style="list-style-type: none"> <li>• Stead McAlpin, Cumberland Infirmary, Atlas Works, Carnaud Metalbox, Bevcam, Pirelli Ltd, Carlisle United AFC, BSW Timber, BP Dalston, Nestles. AW Jenkinson Woodwaste, Calor gas, Carlisle Airport, Carlisle Cathedral, Cumbria Waste Management Hespian Wood, FloGas UK, Petroineos Dalston, Shanks Waste Management Hespian Wood</li> </ul>
Rurality	<ul style="list-style-type: none"> <li>• Of the 58 LSOAs that constitute Carlisle, the majority are designated 'Urban' according to DEFRA Urban/Rural classifications with 1 'Town and Fringe' and 7 'Village and Hamlet'.</li> </ul>

## 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 Carlisle West Station area are shown below.

**Map 5: Future Projects and Developments within Carlisle West Station Area**



Currently there are 6 infrastructure projects within Carlisle West Fire Station area:

Station	Project	Investment Impact
West Coast	Cumbrian Coastal Railway Enhancement	Improvements to increase capacity, usage and resilience
West Coast	A595 Corridor Enhancements	Improvements to support economic growth in West Cumbria
Carlisle East & West	Carlisle Station Improvements	Improvements to passenger & freight
Carlisle West	Carlisle Airport Enhancements	Improvements to allow scheduled air services
Carlisle West	Kingmoor Park	Bring forward future development
Carlisle West	St Cuthbert's Garden Village	10,000 homes

Based on these economic and housing projects, Carlisle district's population is expected to remain relatively stable with projections of growth between +1% and +6% by 2023, which would lead to primary fire growth between 1 and 9. This would have no projected impact on fire casualty rates by 2023.