

**Grange 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).

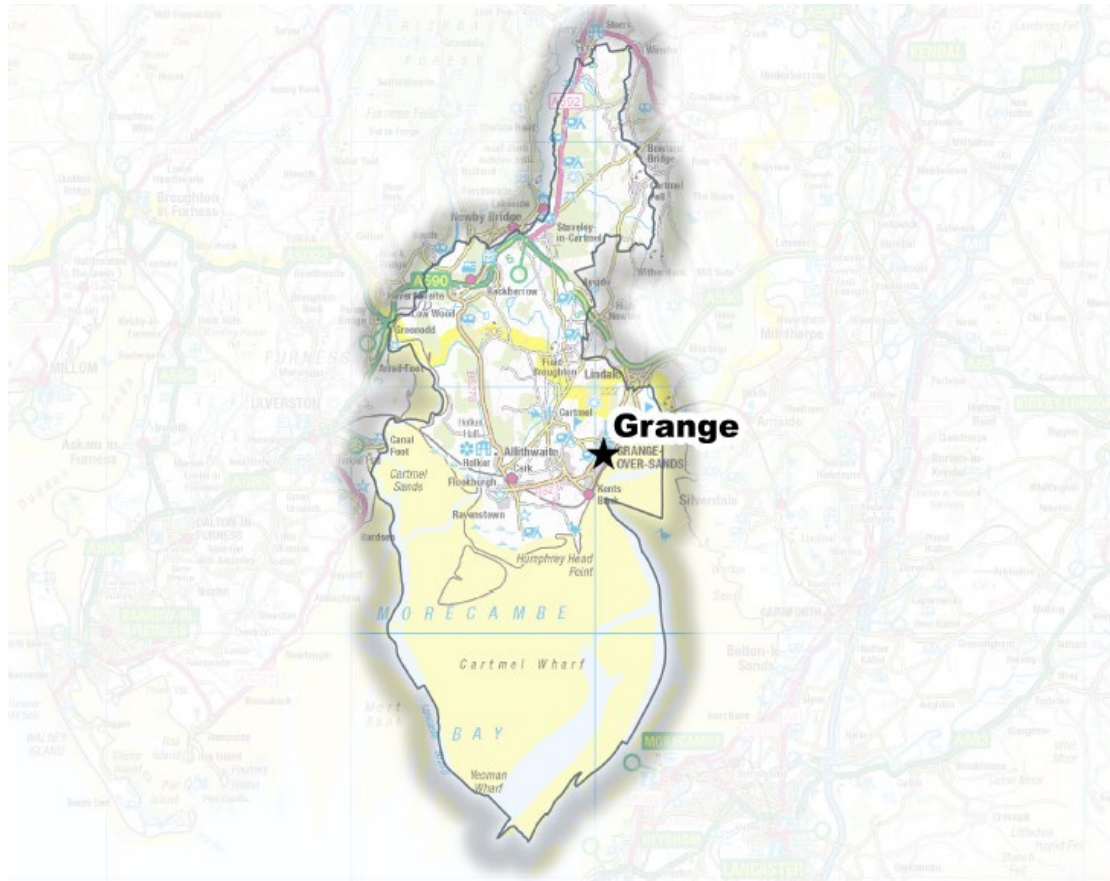
The RBEP 2018 is developed to support the Integrated Risk Management Plan (IRMP) 2019-23. The purpose of the IRMP 19-23 is to identify and assess fire and rescue related risks for the next four years, and set out what the service is going to do to address them.

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 Grange over Sands. A map of the 'station area'<sup>1</sup> is shown below. The station in 17/18 was crewed by 12 firefighters working the On-call duty system.



Station Area	9,600 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 Grange Fire Station to the next nearest three fire stations.

Station Name	Distance by Road (MILES)
Kendal	16 miles
Milnthorpe	11 miles
Ulverston	15 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 Grange On-call fire engine had been off duty for 3.62% of the time.

C45P1	2015/16	2016/17	2017/18
Total Availability	94.38%	97.93%	96.38%
Mon - Fri (08:00 - 18:00)	87.78%	95.52%	93.03%
Mon - Thurs (18:00 - 08:00)	99.74%	99.96%	99.73%
Fri - Mon (18:00 - 08:00)	94.86%	98.05%	96.05%

## Station Fire Engine Response Times

Grange 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 Grange On-call fire engine (C45P1) had the following response times below

C45P1	2015/16	2016/17	2017/18
Average crew turnout time (time it takes the crew to respond to the station)	4 mins 53 secs	4 mins 34 secs	5 mins 0 secs
Average response time (time it takes the crew to arrive at the incident from the station)	6 mins 0 secs	8 mins 7 secs	7 mins 31 secs
Number of incidents attended by fire engine C45P1	61	78	75

## 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: Grange**

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	59	80	89	-	-	1	0.4	1	2	3	2.6	n/a	↑
Injury Road Traffic Collisions <sup>1</sup>	1	5	3	-	-	-	0.0	1	1	3	55.6	Very High	↔
Primary Fires <sup>2</sup>	11	11	10	-	-	-	0.0	-	-	-	0.0	Very High	↓
Flooding and water incidents	6	1	10	-	-	-	0.0	-	-	-	0.0	High	↑
Gas incl Carbon Monoxide	2	1	1	-	-	-	0.0	-	-	-	0.0	Medium	↑
Automatic Fire Alarms	26	45	43	-	-	-	0.0	-	-	-	0.0	Standard	↑
Wildfires <sup>4</sup>	-	-	-	-	-	-	0.0	-	-	-	0.0	Standard	↔
Animal Assistance Incidents	1	-	2	-	-	-	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 89 incidents within Grange Fire Station area with 1 fatality. This included 3 Injury RTCs, 10 primary fires and 10 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 2018.

The fire risk model shows an increasing fire risk for Grange Fire Station with no high level risk LSOAs, and overall risk score increasing from 110 in 2014/15 to 118 in 2018/19, an increase of 7%.

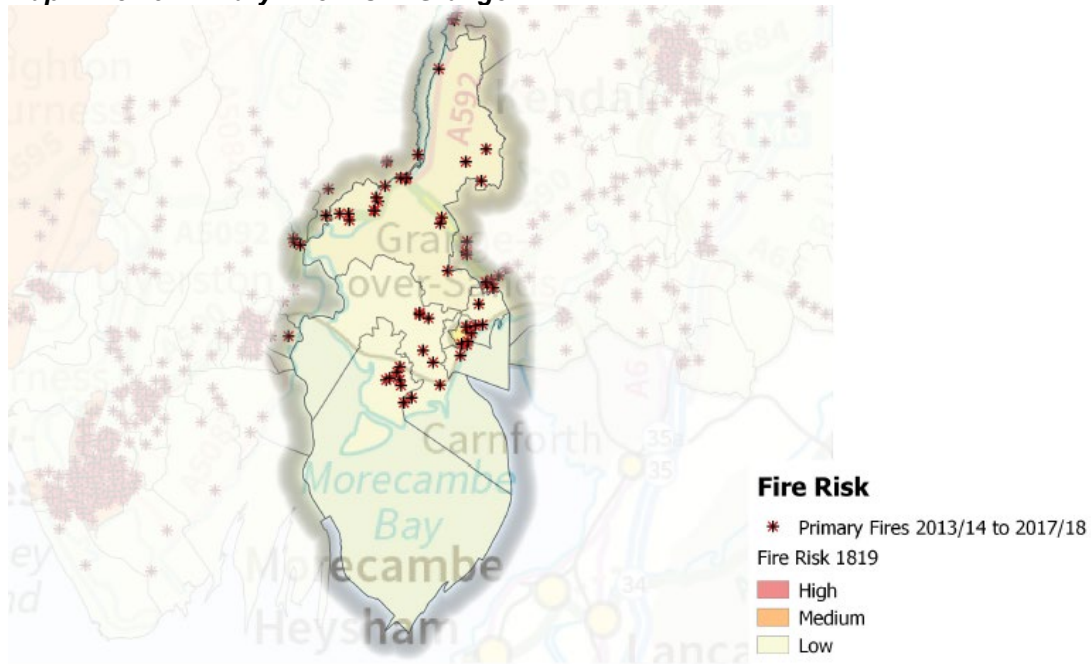
**Table 2: 18/19 Primary Fire Risk – Grange**

Grange 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	110	6	116	6	114	6	118	6	118	6
<b>TOTAL</b>		<b>110</b>	<b>6</b>	<b>116</b>	<b>6</b>	<b>114</b>	<b>6</b>	<b>118</b>	<b>6</b>	<b>118</b>	<b>6</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 Grange 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.

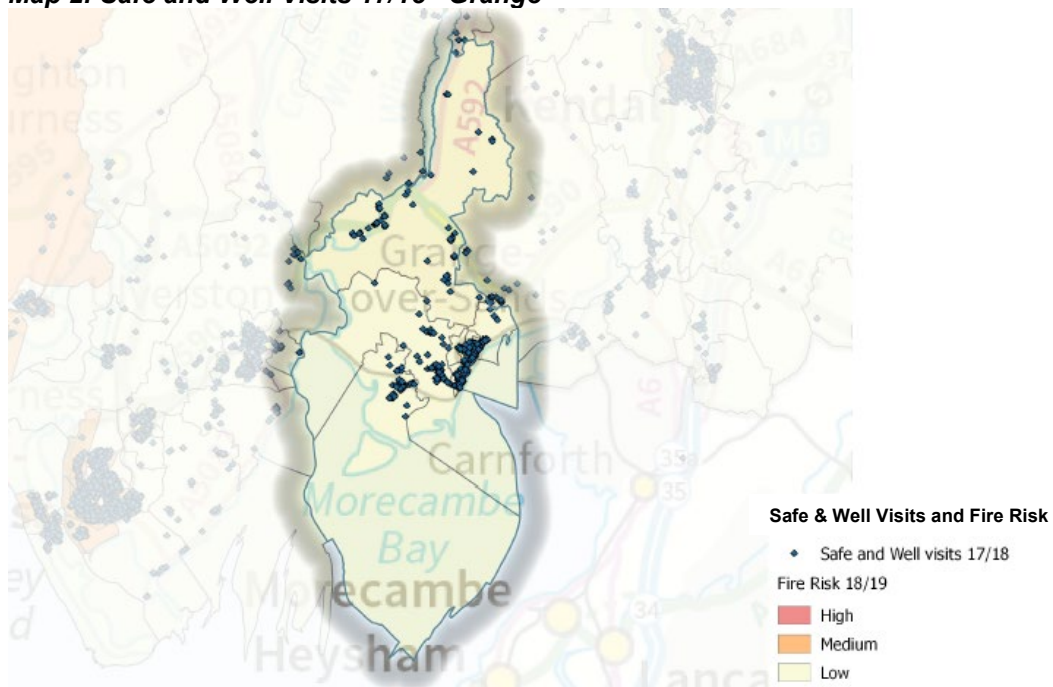
**Map 1: 18/19 Primary Fire Risk –Grange**



### 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 –Grange**





## Injury Road Traffic Collision Response Profile

### Incident and Risk Profile

The Injury RTC risk modelling shows an increasing rate of risk for Grange Fire Station area. There are no high risk LSOAs in Grange in 2018/19. However, the overall risk score increases from 252 in 2014/15 to 288 in 2018/19 – an increase of 14%

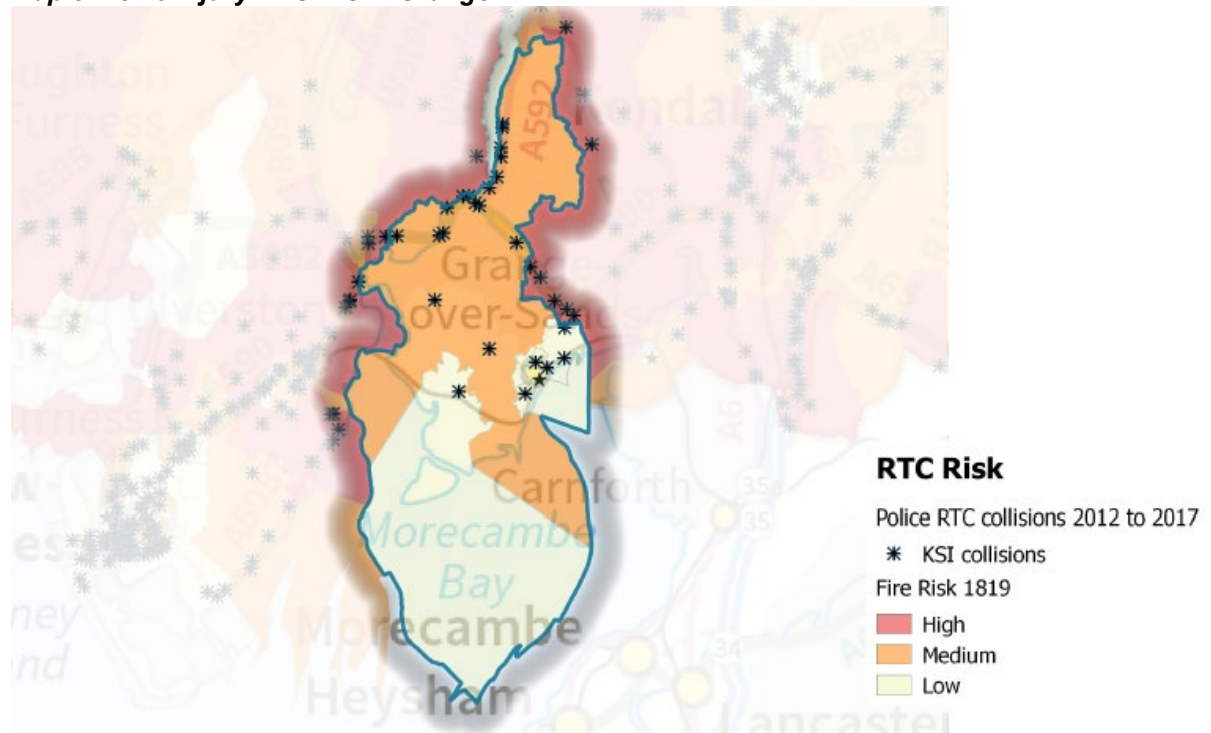
**Table 3: 18/19 Injury RTC Risk – Grange**

Grange 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	0	0	0	0	0	0
24-100	Med	160	2	80	1	160	2	140	2	144	2
<=24	Low	92	4	152	5	148	4	104	4	144	4
<b>TOTAL</b>		<b>252</b>	<b>6</b>	<b>232</b>	<b>6</b>	<b>308</b>	<b>6</b>	<b>244</b>	<b>321</b>	<b>288</b>	<b>6</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 –Grange**



## 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 South Lakeland District, 10 RAT sessions were provided throughout 2017/18 18 to a total of 507 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>

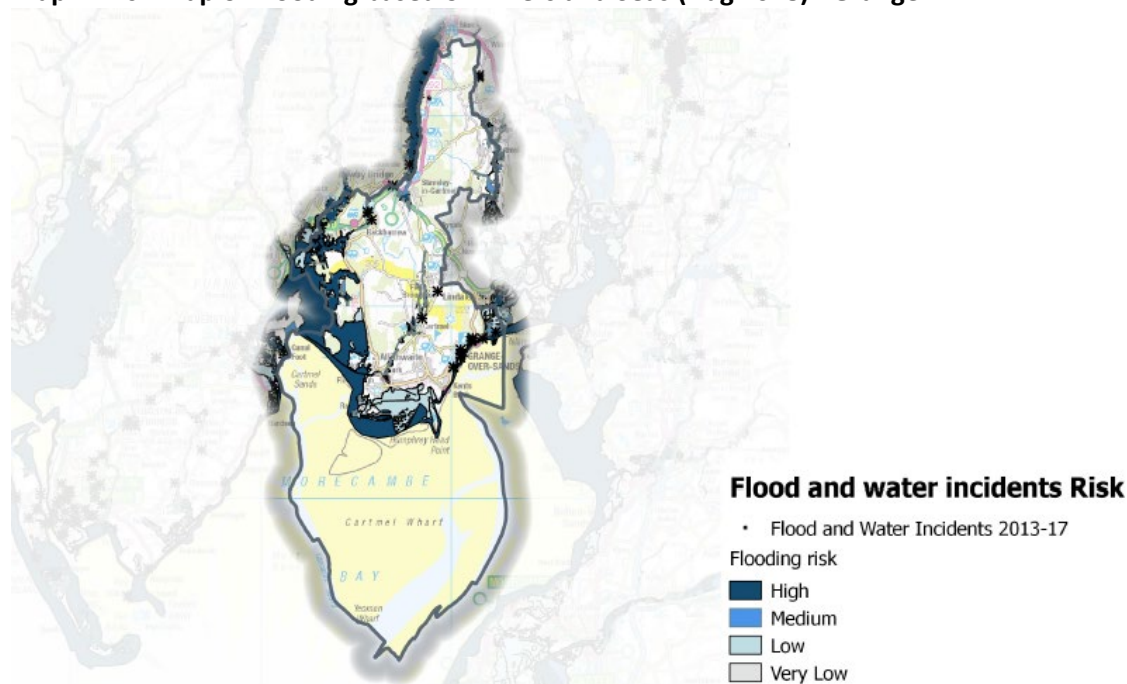
*Datasource: CFRMIS*

## 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.

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



### 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

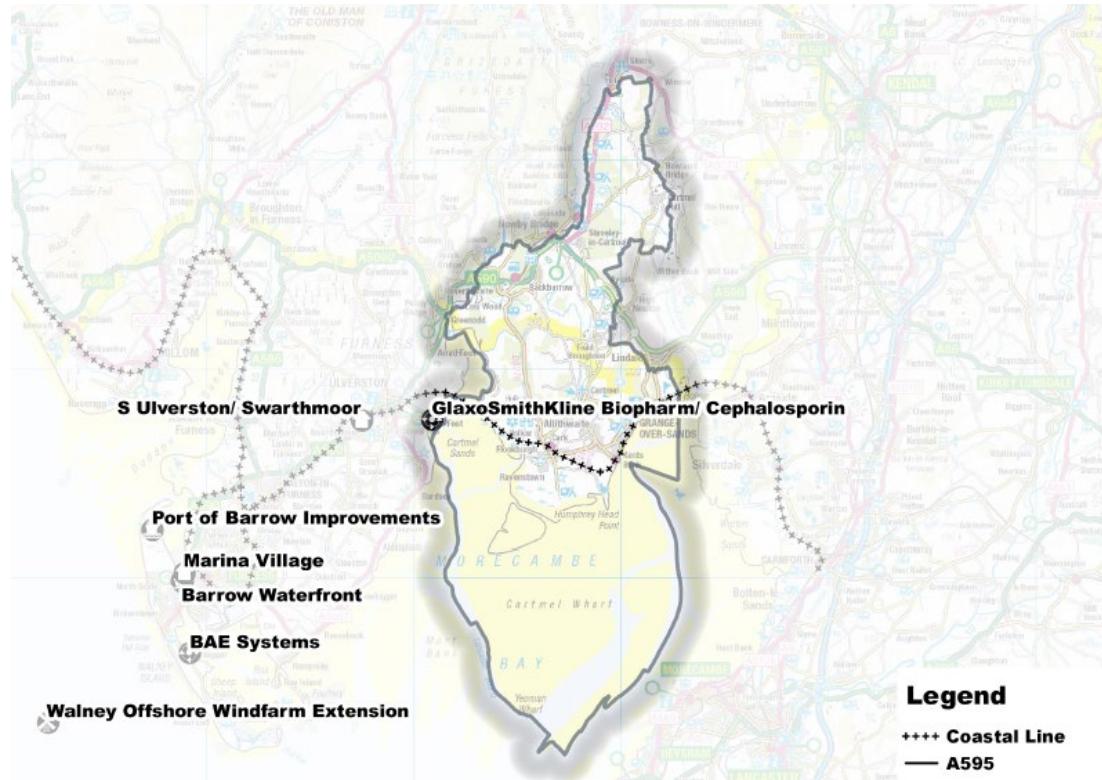
As Grange is a coastal town on the estuary, over the years the station has attended numerous rescues of people and also animals that have become stuck in the quicksand. In addition to this the proximity of the sea often leads to some localised flooding. The main A590 trunk road runs through the station area and as this is one of the most notorious roads in the county for road traffic collisions, this is a significant part of the firefighters duty today.

Grange	Risk in station area
Heritage	<ul style="list-style-type: none"> <li>• Stott Park Bobbin Mill</li> <li>• Rusland Tannery</li> </ul> <p><b>Grade I listed:</b></p> <ul style="list-style-type: none"> <li>• Priory Church of St Mary, Cartmel</li> </ul> <p><b>Grade II* listed:</b></p> <ul style="list-style-type: none"> <li>• Cark Hall, North Cottage and South Cottage, Cark in Cartmel</li> <li>• Priory Close House, Cartmel</li> <li>• Priory Gatehouse, including east bay of Gatehouse, Cartmel</li> <li>• Wraysholme Tower, Flookburgh</li> <li>• Canon Winder Hall, Flookburgh</li> <li>• Church of St John Baptist, Flookburgh</li> <li>• No 30 (Manor House) Market Street and adjoining outbuildings, Flookburgh</li> <li>• Netherwood Hotel, Grange over Sands</li> <li>• Holker Hall and terrace wall approx 70m to garden to south-east, Holker</li> <li>• Church of St Peter, Field Broughton</li> <li>• Newby Bridge over river, Newby Bridge</li> </ul>
Environment	<ul style="list-style-type: none"> <li>• 10 Sites of Specific Scientific Interest</li> </ul>
Site Specific Risks	<ul style="list-style-type: none"> <li>• Vitagrass Farms Ltd</li> <li>• Ceh, Merlewood</li> </ul>
Rurality	<ul style="list-style-type: none"> <li>• According to the DEFRA Urban/Rural classifications the five LSOAs that make up Grange 3 are 'Town and Fringe' and 2 are '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 Grange Fire Station area are shown below.

**Map: Future Projects and Developments within Grange Fire Station Area**



Currently there is one key infrastructure projects within Grange Fire Station area:

- Cumbrian Coastal Railway Enhancements – Improvements to the railway to increase capacity, usage and resilience of the line through the area.

Based on these economic and housing projects, South Lakeland 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 5. This would have no projected impact on fire casualty rates by 2023.