# **ELLESMERE PORT**



## **Contents**

Introdu	ction	4
1. Ass	sessment of the Current and Emerging Risks in Ellesmere Port	6
1.1.	Current Risk in Ellesmere Port	8
1.1	l.1. Population	8
1.1	1.2. Housing – Dwellings	9
1.1	I.3. Non Domestic Premises - Businesses	11
1.1	l.4. Road Traffic Volume	13
1.1	1.5. Deliberate Fire Trends	15
1.2.	Emerging Risk in Ellesmere Port	16
Но	using Growth	16
	siness Growth	
Tra	affic Volume Growth	16
and	analysis of current and anticipated activity levels (broken down into day and night) diset against current performance against the ten-minute response standard for life incidents	-
2.1.	Analysis of Current and Anticipated Activity Levels	19
2.1	1.1. Service Wide Activity Levels	19
2.1	.2. Ellesmere Port Activity Levels Pre – Post ERP1 Decision	19
2.1	.4. Life Risk Incidents - Dwelling Fires	21
2.1	.5. Life Risk Incidents – Road Traffic Collisions (RTC's)	22
	I.6. Fire engine Attendance Times in Ellesmere Port Station Area – Cheshire andard	23
	1.7. Actual Attendance Times for Neighbouring Fire Engines (5 years data, include bilisation and travel time)	
2.1	.8. Predicted Fire Engine Incident Mobilisations – Emergency Response Plan 1.	26
2.1	I.9. Community Safety / Prevention-Protection Activity Levels	27
3. An	analysis of the types of incidents dealt with.	28
3.1.	Incident Type and Average Number of Incidents in Ellesmere Port Station Area – 2007-2001 and 2012 – 2016	29
3.2.	Life Risk – Dwelling Fires Community Impact	30
3.3.	Life Risk – Road traffic Collisions Community Impact	30
3.4.	Large / Major Incidents	31
4. On	-call Context	33
4.1.	On-call Recruitment	34
4.2.	On-call Recruitment – Recruitment Plan New Staff	35
4.3.	On-call Recruitment Area – Households/Demographics	36
4.4.	On-call Duty System – Turnout Time and Availability	37

1 E	On cell Canalysian	27
4.5.	On-call Conclusion	37

## **Table of Figures**

Figure 1 Population Estimates for Cheshire 2002/03 -2016/17
Figure 2 Estimated Population within Ellesmere Port Station Area Between 2007/08 -
2016/17
Figure 3 Dwelling Estimates Within Cheshire Between 2002/03 – 2016/17
Figure 4 Dwelling Estimates Within Ellesmere Port Between 2002/03 – 2016/17
Figure 5 Number of Dwelling Fires Within Cheshire 2002/03 - 2016/1710
Figure 6 Number of Dwelling Fires Within Ellesmere Port Station Area Between 2007/08 -
2016/1710
Figure 7 Non Domestic Property Estimates Within Cheshire Between 2002/03 – 2016/17.1
Figure 8 Non Domestic Property Estimates Within Ellesmere Port Between 2007/08 -
2016/171
Figure 9 Non Domestic Premises Fires Within Cheshire Between 2002/03 - 2016/17 12
Figure 10 Number of Fires in Non-Domestic Premises Within Ellesmere Port Station Area
Between 2007/08-2016/1712
Figure 11 Estimated Volume of Traffic Within Cheshire Between 2002/03 – 2016/1713
Figure 12 Volumes of Traffic Within Ellesme <mark>re Port Station Area Between 2007/08 –</mark>
2016/171
Figure 13 Number of RTC's Within Cheshire Between 2002/03 - 2016/1714
Figure 14 Number of RTC's Within Ellesmere Port Between 2007/08 – 2016/1714
Figure 15 Deliberate Fire Trend Ellesmere Port 2009/10 to 2016/1715
Figure 16 Total number of incidents in Cheshire Between 2002/03 – 2016/1719
Figure 17 Total number of incidents within Ellesmere Port between 2007/08 - 2011/1219
Figure 18 Total number of incidents within Ellesmere Port between 2012/13 - 2016/1719
Figure 19 Percentage of incidents occurring in Ellesmere Port station area by number of fire
engines utilised (3 years data 2014/15 – 2016/17)
Figure 20 Average Number of Dwelling Fires Ellesmere Port 2007/08 – 2011/122
Figure 21 Average Number of Dwelling Fires Ellesmere Port 2012/13 – 2016/172
Figure 22 Average Number of RTC's Ellesmere Port 2007/08 – 2011/1222
Figure 23 Average Number of RTC's Ellesmere Port 2012/13 – 2016/1722
Figure 24 Predicted ERP1 Incident Mobilisations per fire engine (5 year average)20
Figure 25 Annual Average Incidents Within Ellesmere Port Station Area – Comparing 2007-
11 against 2012-1629

Figure 26 Map Travel Time 5 & 7 minutes from Ellesmere Port Fire Station – normal roa	ıd
speed (no blue lights)	36
Table of Tables	
Table 1 Ellesmere Port Dwelling Fires by % Time of Day	21
Table 2 Ellesmere Port RTC's by % Time of Day	22
Table 3 Ellesmere Port – Average Attendance Times for First, Second and Third Fire	
Engines to incidents	23
Table 4 Average Attendance Times of Neighbouring Fire Engines into Ellesmere Port	25
Table 5 Community Safety and Prevention/Protection Work – Safe and Well Visits	27
Table 6 Community safety and prevention work - Road Safety, Business Safety and Key	/
Stage 2	27
Table 7 Average Number of Incidents by Type 2007-2011	29
Table 8 Average Number of Incidents by Type 2012-2016	29
Table 9 Multi Fire engine Incidents Ellesmere Port (Greater than 5 fire engines)	31
Table 10 - 10 Fire Engine Response to Ellesmere Port 100% OC Available	31
Table 11 - 10 Fire Engine Response to Ellesmere Port No OC Availability	31
Table 12 On-call implementation timeline	35
Table 13 MOSAIC priority recruitment groups Ellesmere Port	36
	e de la composition della comp

## Introduction

After a comprehensive public consultation, Members agreed at the meeting of Cheshire Fire Authority on 13 February 2013 to embark upon a programme of change (Emergency Response Programme) to improve the efficiency of Cheshire Fire and Rescue Service and to deliver required savings to reflect reductions in central government grant.

Proposals to change the duty system for the second fire engines at Crewe and Ellesmere Port from the wholetime duty system to an on-call duty system were two specific elements of the Emergency Response Programme.

Other elements of change within the Emergency Response Programme – with most elements delivered by April 2017 - included the construction of four new fire stations to improve emergency cover and response times across Cheshire; reviewing working patterns across the organisation; furthering collaboration with local partner agencies and the introduction of a response standard to life-risk incidents of ten minutes on 80% of occasions.

At the February 2013 meeting, when agreeing proposed elements of the Emergency Response Programme (2013/14 to 2016/17), Members agreed the following provisions relating to the second fire engines at Crewe and Ellesmere Port:

2015/16 - Start recruiting for on-call staff at Crewe and Ellesmere Port, and

2016/17 - Introduce new crewing arrangements for the second fire engine at Ellesmere Port and,

2016/17 - Introduce new crewing arrangements for the second fire engine at Crewe

Following consultation on the draft Integrated Risk Management Plan (IRMP) for 2017-18, at the meeting of Cheshire Fire Authority on 14 February 2017 Members agreed to review the plans to change the duty system from wholetime to on-call for the second fire engines at Crewe and Ellesmere Port to determine whether they were still appropriate to reflect the local risk and demand. Members then resolved to add the following amendment to the approved IRMP for 2017/18:

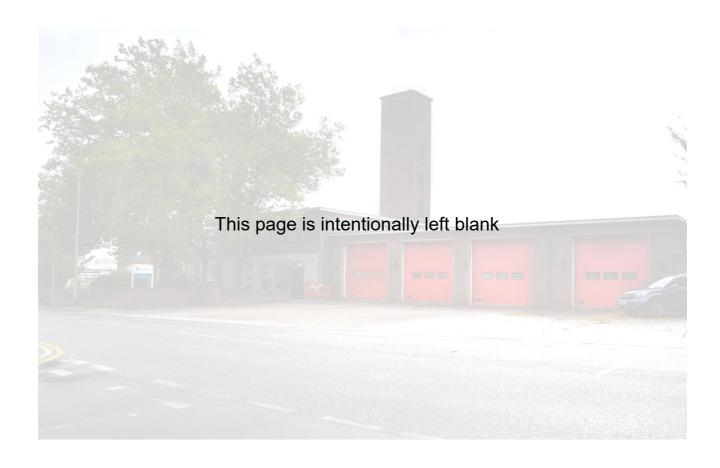
"No change to the current arrangements in Crewe and Ellesmere Port in 2017-18 pending a review, the outcome of which is to be considered by Members"

The scope of the review was agreed by Members at the Fire Authority meeting on 26 April 2017, where it was resolved that the review would focus on the following areas:

- 1. An assessment of the current and emerging risks;
- 2. An analysis of current and anticipated activity levels (broken down into day and night) and set against current performance against the ten-minute response standard for life-risk incidents; and
- 3. An analysis of the types of incident dealt with.

The report also noted that when the review was to be considered, Members would need to understand the up-to-date position in relation to on-call firefighter recruitment and training, with an assessment of the likely ongoing situation.

The information within this appendix has been prepared in line with the above scope and should be read in conjunction with the covering report to the Cheshire Fire Authority titled, "Review of the Authority's plans to change the duty system from wholetime to on-call for the second fire engines at Crewe and Ellesmere Port fire stations".



## 1. Assessment of the Current and Emerging Risks in Ellesmere Port

#### Methodology

#### **Aim and Scope of Assessment**

The aim of the assessment is to identify if current risk, identified emerging risks or risk trends, will place an additional future demand on the operational activity of Cheshire Fire and Rescue Service in Ellesmere Port. Officers will make an assessment of the data compiled and will note within the report their professional judgement.

The scope of the assessment is to identify risk and respond to Fire Authority Member queries related to current and emerging risk.

#### Key issues are:

- Has there been an increase in population in Ellesmere Port?
- Has there been an increase in the number of Dwellings in Ellesmere Port?
- Has there been an increase in the number of Business Units in Ellesmere Port?
- Has there been an increase in traffic volumes in Ellesmere Port?
- Has an increase impacted on the number of incidents that Cheshire Fire and Rescue Service have attended in Ellesmere Port?

#### **Assessment of the Current and Emerging Risks in Ellesmere Port**

- The areas of current risk that have been considered are:
- Service Wide Population vs Ellesmere Port Population
- Service Wide Dwellings vs Ellesmere Port Dwellings
- Service Wide Dwelling Fire vs Ellesmere Port Dwelling Fires
- Service Wide Non Domestic Premises vs Ellesmere Port Non Domestic Premises (Business Units)
- Service Wide Non Domestic Fires vs Ellesmere Port Non Domestic Premises Fire
- Service Wide Road Traffic Volume vs Ellesmere Port Road Traffic Volumes
- Service Wide Road Traffic Collisions vs Ellesmere Port Road Traffic Collisions (RTC's attended by Cheshire Fire and Rescue Service)
- Deliberate fire trends within the Ellesmere Port station area.

#### The areas of emerging risk that have been considered are:

- Population Growth
- Housing Growth
- Business Growth
- Traffic Volume Growth

#### Approach to the assessment

 Officers have worked with the Business Intelligence Unit and Michael Wright of Greenstreet Berman to gather and interrogate intelligence. Cheshire Fire and Rescue Service have produced a report, with this appendix as an integral part, along with the report from Greenstreet Berman, which validates Officers' work.

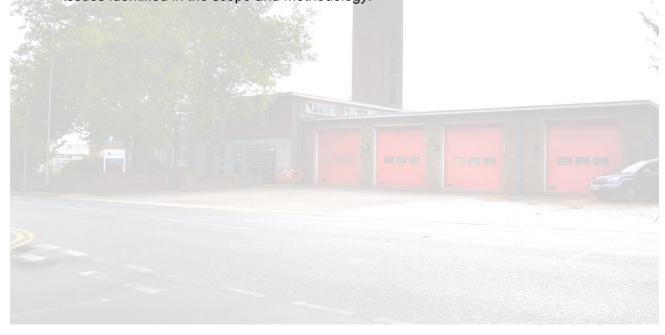
#### **Data Sources and Information requested**

- Mid year population estimates from the office of national statistics (ONS).
- Cheshire Fire and Rescue Incident Recording System Data

- Department for Transport Volume of Traffic within Cheshire between 2002/03 2016/17
- Department for Transport Volumes of Traffic within Ellesmere Port Station Area between 2007/08 – 2016/17
- Cheshire Fire and Rescue Service Incident Recording System Data.

#### **Assessment criteria**

- Acquire data from internal and external sources, relevant to the areas of scope for the whole of Cheshire between 2002/03 and 2016/17 to give an indication of long-term trends over a 15-year period.
- Acquire data from internal and external sources, relevant to the areas of scope for the Ellesmere Port station area for the 5 year period prior to the initial decision making process (2007/08 – 2011/12) and the for the 5 year period post the initial decision making process (2012/13 - 2016/17).
- The assessment of all data will be undertaken between the time period 2007/08 to 2016/17, excluding Ellesmere Port Dwellings and Business Units as the Service have only been able to secure limited data from the census (this is identified in the relevant sections of the appendix).
- Officers will draw comparisons between the whole of Cheshire and Ellesmere Port specific data.
- Officers will access the Ellesmere Port data to provide information related to the key issues identified in the scope and methodology.



#### 1.1. Current Risk in Ellesmere Port

#### 1.1.1. Population

## Service Wide Population

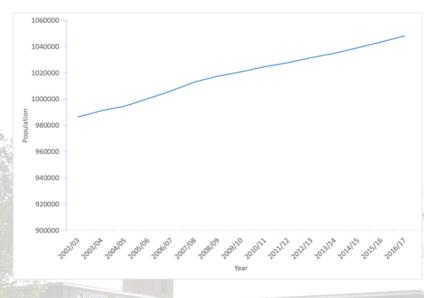
Service wide population shows an increased trend since 2002 (Figure 1)

The population across Cheshire since 2012 has increased by 1.59%, rising from 1,031,690 to 1,048,087 (Figure 1).

Population growth in Ellesmere Port over the same period of time has increased by only 0.37% from 60267 to 60488 (Figure 2)

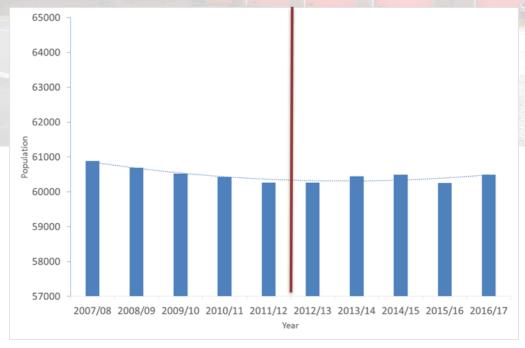
Data source: Mid year population estimates from the office of national statistics (ONS). Note: the mid year estimate for 2016 was used to calculate the population estimate for 2016-17

Figure 1 Population Estimates for Cheshire 2002/03 -2016/17



### Ellesmere Port Population

Figure 2 Estimated Population within Ellesmere Port Station Area Between 2007/08 - 2016/17



Data source: Mid year population estimates form the office of national statistics (ONS)

Note: Data has been complied at ward level, the ward boundaries are not coterminous with the station boundaries, therefore a degree of estimation has been utilised for wards on station boundaries (3 wards have estimations)

## 1.1.2. Housing - Dwellings

## Service Wide Dwellings

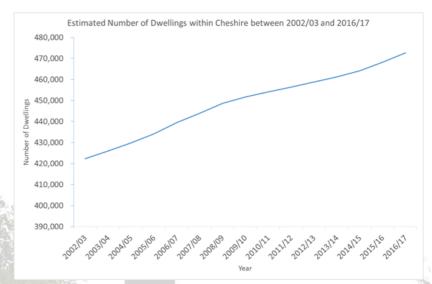
Service wide dwellings show an increased trend since 2002 (Figure 3)

Note: The Service have been unable to secure data related to the number of Dwellings in Ellesmere Port between 2007/08 and 2010/11. Therefore to draw a consistent comparison for this particular data set Officers have compared the growth in Cheshire and Ellesmere Port between 2012/13 and 2016/17

Dwellings across Cheshire have increased by 3.02% since 2012, rising from 458,800 to 472,650

Dwelling growth in Ellesmere Port over the same period was 1.49%, rising from 27718 to 28130 (Figure 4).

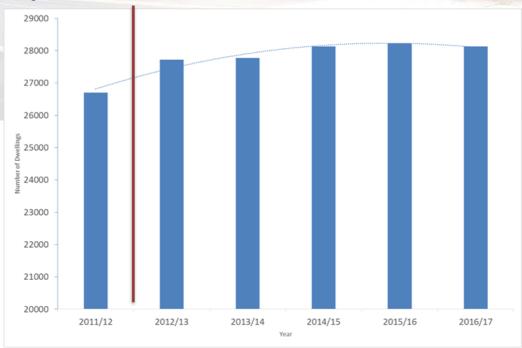
Figure 3 Dwelling Estimates Within Cheshire Between 2002/03 – 2016/17



Data source: The Office Of National Statistics (ONS)

#### Ellesmere Port Dwelling

Figure 4 Dwelling Estimates Within Ellesmere Port Between 2002/03 - 2016/17



Data source: MOSAIC Household data

Note: Data has been compiled in MapInfo and account has been taken of each household within the station boundary.

## **Dwelling Fires**

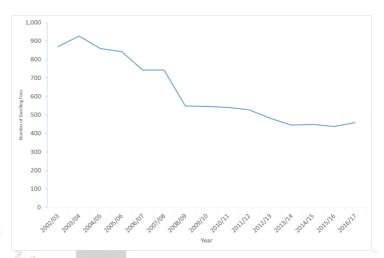
## Service Wide Dwelling Fires

Service wide dwellings fires show a decreased trend since 2002 (Figure 5)

When comparing Service Wide the average number of dwelling fire incidents per year, over the five-year periods 2007-2011 and 2012-2016, there has been a 22% reduction on average.

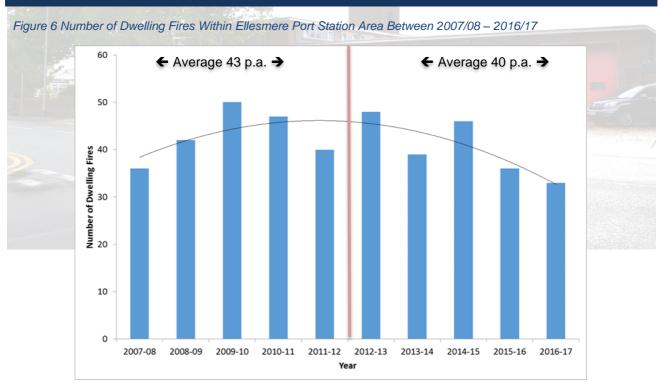
When comparing over the same periods, there were 6% less dwelling fires in Ellesmere Port, from an average of 43 to 40 incidents per year (Figure 6).

Figure 5 Number of Dwelling Fires Within Cheshire 2002/03 - 2016/17



Data source: Cheshire Fire and Rescue Service Incident Recording System

## Ellesmere Port Dwelling Fires



Data source: Cheshire Fire and Rescue Service – Incident Recording System Data.

Note: this data is based on station boundary as it is now and not as it was at the time of incident. This is due to station boundary changes since ERP1 plan implemented.

#### 1.1.3. Non Domestic Premises - Businesses

#### Service Wide Non Domestic Premises - Businesses

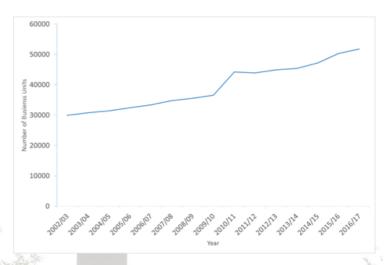
Service wide non domestic properties show an increased trend since 2002 (Figure 7)

Note: The Service have been unable to secure data related to the number of Business Units in Ellesmere Port between 2007/08 and 2010/11. Therefore to draw a consistent comparison for this particular data set, Officers have compared the growth in Cheshire and Ellesmere Port between 2012/13 and 2016/17

Business Units across Cheshire have increased by 15.19% since 2012, rising from 44,940 to 51,765 (Figure 7)

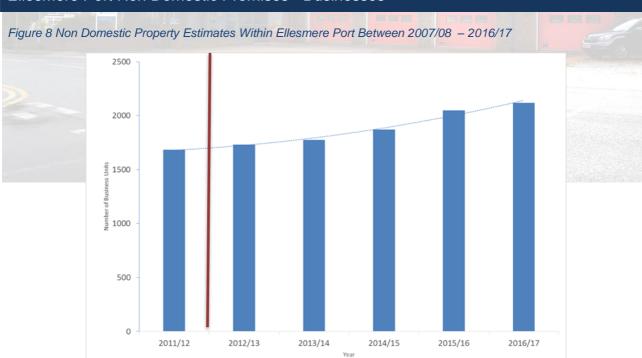
Business Units growth in Ellesmere Port over the same period was 22.54%, rising from 1730 to 2120 (Figure 8).

Figure 7 Non Domestic Property Estimates Within Cheshire Between 2002/03 – 2016/17



Data source: The Office Of National Statistics (ONS)

#### Ellesmere Port Non Domestic Premises - Businesses



Data source: Number of Business Units from the office of national statistics (ONS), broken down by ward.

Note: Data has been complied at ward level, the ward boundaries are not coterminous with the station boundaries, therefore a degree of estimation has been utilised for wards on station boundaries (3 wards have estimations)

#### Non Domestic Premises Fires - Businesses

#### Service Wide Non Domestic Premises Fires

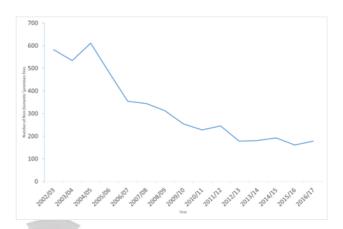
Service wide non domestic premises fires show a decreased trend since 2002 (Figure 9)

When comparing Service Wide the average number of non-domestic premises fire incidents per year, over the five-year periods 2007-2011 and 2012-2016, there have been on average a 36% reduction in incidents.

When comparing over the same periods, the average number of non-domestic premises fire incidents per year in the Ellesmere Port station area, there have been on average 36% less, from an average of 20 to 13 per year (Figure 10).

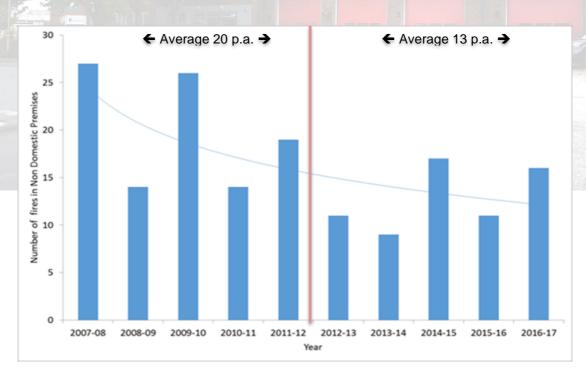
Data source: Cheshire Fire and Rescue Service (CFRS) – Incident Recording System Data from 2008/09 prior to this the data has been sourced from CFRS national indicator Home Office returns.

Figure 9 Non Domestic Premises Fires Within Cheshire Between 2002/03 - 2016/17



#### Ellesmere Port Non Domestic Premises Fires

Figure 10 Number of Fires in Non-Domestic Premises Within Ellesmere Port Station Area Between 2007/08-2016/17



Data source: Cheshire Fire and Rescue Service – Incident Recording System Data.

Note: this data is based on station boundary as it is now and not as it was at the time of incident. This is due to station boundary changes since ERP1 plan implemented.

## 1.1.4. Road Traffic Volume

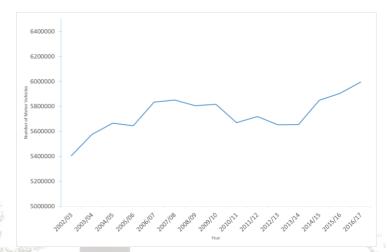
#### Service Wide Road Traffic Volumes

Service wide traffic volumes show an increased trend since 2002 (Figure 11)

When comparing traffic volumes, over the five-year periods 2007-2011 and 2012-2016, there has been on average a 0.66% growth in volume.

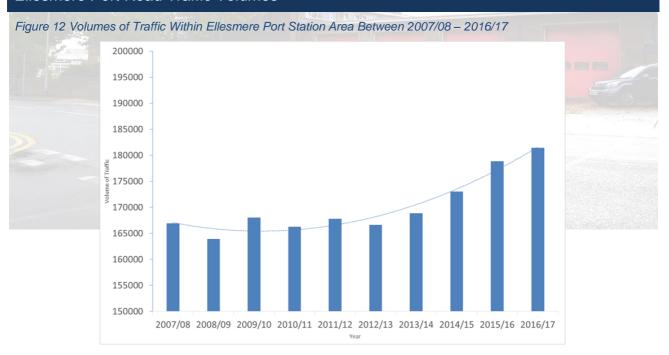
When comparing the traffic volumes in Ellesmere Port, over the same periods, there has been on average a 4.3% increase in volume (Figure 12)

Figure 11 Estimated Volume of Traffic Within Cheshire Between 2002/03 – 2016/17



Data source: Department for Transport

#### Ellesmere Port Road Traffic Volumes



Data source: Department for Transport

## Road Traffic Collisions (RTC) RTC's attended by Cheshire Fire and Rescue Service

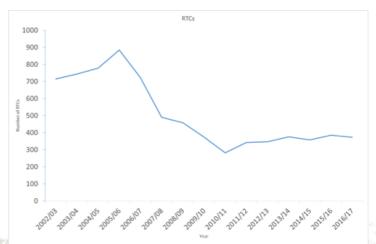
## Service Wide Road Traffic Collisions (RTC) RTC's attended by Cheshire Fire and Rescue Service

Service wide road traffic accidents show an decreased trend since 2002 (Figure 13)

When comparing Service Wide the average number of Road Traffic Collisions (RTC) per year, over the five-year periods 2007-2011 and 2012-2016, there has been on average a 6% reduction in RTC's (Figure 13).

When comparing the average number of RTC's per year in the Ellesmere Port station area, over the same periods, there has been on average 26% less RTC's, from an average of 14 to 11 per year (Figure 14).

Figure 13 Number of RTC's Within Cheshire Between 2002/03 - 2016/17



Data source: Cheshire Fire and Rescue Service – Incident Recording System Data.

Note: this data is based on station boundary as it is now and not as it was at the time of incident. This is due to station boundary changes since ERP1 plan implemented.

## Ellesmere Port Road Traffic Collisions (RTC) RTC's attended by Cheshire Fire and Rescue Service

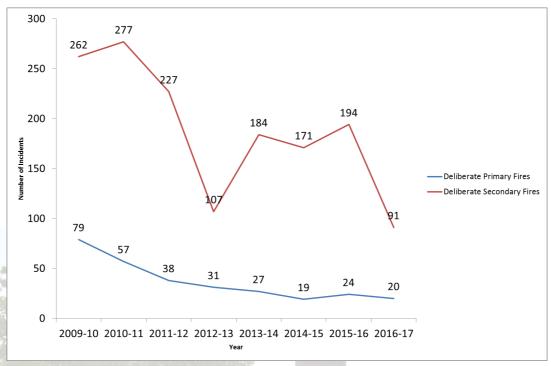
Figure 14 Number of RTC's Within Ellesmere Port Between 2007/08 - 2016/17 25 ← Average 14 p.a. → ← Average 11 p.a. → 20 mber of RTcs ž 10 2007-08 2010-11 2011-12 2012-13 2016-17 2008-09 2009-10 2013-14 2014-15 2015-16

Data source: Cheshire Fire and Rescue Service – Incident Recording System Data.

Note: this data is based on station boundary as it is now and not as it was at the time of incident. This is due to station boundary changes since ERP1 plan implemented.

#### 1.1.5. Deliberate Fire Trends

Figure 15 Deliberate Fire Trend Ellesmere Port 2009/10 to 2016/17



Data Source: Cheshire Fire and Rescue Service Incident Recording System

Ellesmere Port Members raised concerns in regard to a suspected upward trend of deliberate fire in the Ellesmere Port Station area.

Officers reviewed the situation and using deliberate fire data from Cheshire Fire and Rescue Service Incident Recording System, (which first commissioned use was April 2009) this identifies both primary deliberate fire and secondary deliberate fire trends in Ellesmere Port (Figure 15).

In the period 2009/10 there were 79 primary deliberate fires, compared to the period 2016/17 where there were 20 incidents. Between 2009/10 and 2012/13 there is a downward trend and between 2012/13 to 2016/17 the totals have reached a plateau.

The annual number of secondary deliberate fires fluctuates significantly year on year, as seen in Figure 15. There are many variables that can effect the number of secondary deliberate fires such as weather, climate and the emergence of prolific individual or group fire setters.

Local station management teams engage fully with partner agencies through tasking and coordination groups, neighbourhood action teams and community safety groups to proactively tackle and reduce deliberate fire setting.

In the period 2009/10 there were 262 Secondary Deliberate Fires subsequently reducing to 91 in 2016/17.

## 1.2. Emerging Risk in Ellesmere Port

This section provides an outline of emerging risks. These potential risks that have emerged since Members' decision in 2013 and relate in particular to the Cheshire West and Chester Local Plan regarding housing and economic development. The plan indicates future growth in population, dwellings, business and traffic volumes in Ellesmere Port and surrounding area.

Housing Growth	The Cheshire West and Chester Local Plan outlines housing and economic development growth across the borough up to 2030. Specifically for Ellesmere Port, the Plan forecasts housing growth of 4,800 dwellings over the Plan period. A significant proportion of this is planned for the Ledsham Road area (up to 2,000 dwellings) to the West of the town (Cheshire West and Chester Adopted Local Plan (Part One) Strategic Policies, p.30).
Business Growth	The Cheshire West and Chester Local Plan (Part Two), currently under consultation provides further detail on land release of approximately 90 hectares for economic development in the area. This will primarily concentrate around Ince and Stanlow to the East of central Ellesmere Port and Hooton Park to the North West. Policy Econ.2 outlines that retail development within Ellesmere Port will be focused within the town centre area.
Traffic Volume Growth	Car ownership and use in the CWAC is above the national average. CWAC's most recent survey suggests that 90% of households own at least one car and 50% own two or more vehicles. Local surveys and census data reveals that travel to work by car continues to increase. There is a very high dependence on using the car for commuter trips. 91% of inbound and 92% of outbound trips are made by car. The Council has made modest progress to limit traffic growth but congestion remains a significant problem in parts of the Borough. Traffic levels are forecast to increase over the course of the CWAC fifteen-year strategy by an average of 12%.  Projected Growth 2010-2026 (TEMPRO 5.4) Average Day – percentage rise.  GB 14.90% Chester 13.41% Ellesmere Port & Neston 12.52%

2. An analysis of current and anticipated activity levels (broken down into day and night) and set against current performance against the ten-minute response standard for liferisk incidents.

#### Methodology

#### Aim and Scope of Analysis

The aim of the analysis is to identify the current and anticipated operational activity levels in the Ellesmere Port station area, set against the Cheshire Standard of '80% of Life Risk incidents being attended by the 1<sup>st</sup> fire engine in 10 minutes'. Officers will also provide an analysis of the current and anticipated 'Protection and Prevention' activities undertaken by operational staff in the Ellesmere Port station area. Officers will make an assessment of the analysis compiled and will note their professional judgement within the report.

The scope of this analysis is related to 'Life Risk' incidents.

#### Key issues are:

- Has there been an increase in all operational activity levels in Ellesmere Port?
- How does the operational activity level impact on fire engines used per incident?
- Has there been an increase in the number of 'Life Risk' incidents in Ellesmere Port?
- What are the actual and predicted attendance time of fire engines to life risk incidents?
- What are the average attendance times of neighbouring fire engines into Ellesmere Port?
- What would be the utilisation rate of an on-call second fire engine at Ellesmere Port?
- What are the current and predicted Community Prevention activities undertaken by the operational staff at Ellesmere Port?

#### Analysis of the Current and Anticipated Activity levels in Ellesmere Port

Service wide activity levels vs Ellesmere port activity levels pre & post ERP1

Fire engine utilisation per incident in Ellesmere Port

Average number and time of day of Life Risk Incidents - Dwelling Fires

Average number and time of day of Life Risk Incidents - Road Traffic Collisions (RTC's)

Fire engine attendance times in Ellesmere Port station area set against the Cheshire Standard

Attendance times for neighbouring fire engines to the Ellesmere Port station area

Predicted Fire engine Incident mobilisations

Community Safety / Prevention-Protection activity levels

#### Approach to the assessment

Officers have worked with the Business Intelligence Unit, to gather and interrogate intelligence. Cheshire Fire and Rescue Service have produced a report, with this appendix as an integral part, along with the report from Greenstreet Berman which validates Officers' work.

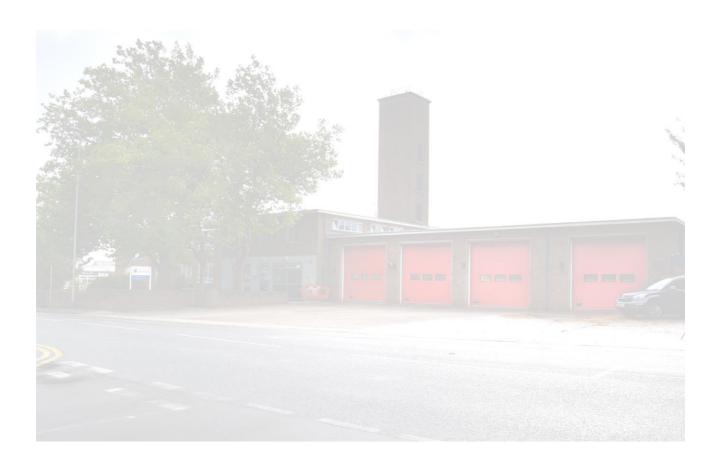
#### **Data Sources and Information requested**

- Cheshire Fire and Rescue Service Incident Recording System Data.
- Modelling by Active Informatics 'Phoenix'

#### Assessment criteria

 Acquire data from Cheshire Fire and Rescue Incident Recording System relevant to the areas of scope for the whole of Cheshire between 2002/03 and 2016/17 to give an indication of trends over a 15-year period.

- Acquire data from Cheshire Fire and Rescue Incident Recording System, relevant to the areas of scope for the Ellesmere Port station area for the 5 year period prior to the IRMP 12 decision making process (2007/08 2011/12) and the for the 5 year period post the IRMP decision making process (2012/13 2016/17).
- The assessment of all data will be undertaken between the time period 2007/08 to 2016/17 unless stated within titles or the narrative.
- Provide predictive modelling of operational response configurations including attendance times and performance set against the Cheshire Standard



## 2.1. Analysis of Current and Anticipated Activity Levels

#### 2.1.1. Service Wide Activity Levels

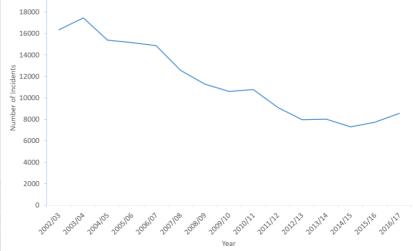
Service wide operational activity levels show a decreased trend since 2002 (Figure 16)

When comparing Service wide the total number of incidents per year, over the five-year periods 2007-2011 and 2012-2016, there has been on average a 27% reduction in incidents (Figure 16).

When comparing the average number of total incidents per year in the Ellesmere Port station area, over the same periods, there has been on average 28% less incidents, from an average of 813 to 588 per year (Figure 17 & Figure 18).

20000 18000 16000 14000 12000

Figure 16 Total number of incidents in Cheshire Between 2002/03 – 2016/17



Data source: Cheshire Fire and Rescue Service - Incident Recording System Data.

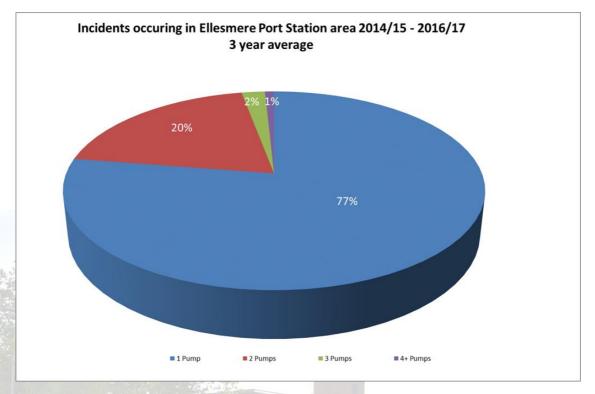
#### 2.1.2. Ellesmere Port Activity Levels Pre – Post ERP1 Decision

Figure 17 Total number of incidents within Ellesmere Port Figure 18 Total number of incidents within Ellesmere Port between 2007/08 - 2011/12 between 2012/13 - 2016/17 Average Incidents per year = 813 Average Incidents per year = 588 1200 1200 1000 600 2007-08

Data source: Cheshire Fire and Rescue Service - Incident Recording System Data. Note: this data is based on station boundary as it is now and not as it was at the time of incident. This is due to station boundary changes since ERP1 plan implemented.

#### 2.1.3. Incidents in Ellesmere Port – Number of Fire Engines Required per Incident

Figure 19 Percentage of incidents occurring in Ellesmere Port station area by number of fire engines utilised (3 years data 2014/15 – 2016/17)



Data source: Cheshire Fire and Rescue Service – Incident Recording System Data.

Note: this data is based on station boundary as now and not as at time of incident; this is due to station boundary changes since ERP1 plan implemented.

To determine the utilisation of fire engines in the Ellesmere Port area, data was sourced from the Cheshire Fire and Rescue Service Incident Recording System.

It has been identified that the majority of incidents attended within the Ellesmere Port station area 77% required the use of one fire engine, a further 20% of incidents required the use of two fire engines and 3% of incidents required three or more fire engines. (percentage rounded)

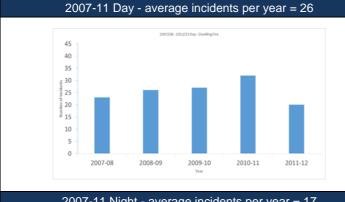
North West Fire Control determines the number of fire engines initially attending an incident by implementing a fire engine pre-determined attendance (PDA) and action plan criteria, which is supplied by CFRS. There are lots of PDA's, some examples are listed below:

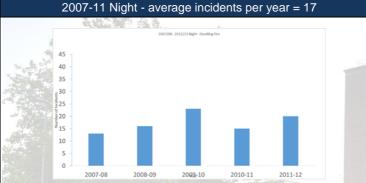
- Small Fires one fire engine
- Building Fires two fire engines
- Person Reported Fire three fire engines
- Road Traffic Collision (small) two fire engines

#### 2.1.4. Life Risk Incidents - Dwelling Fires

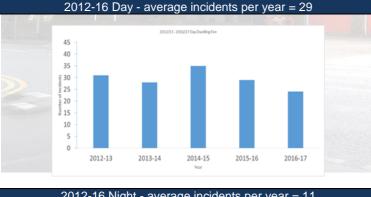
Cheshire Fire and Rescue Service categorise Dwelling Fires<sup>1</sup> as life risk incidents.

Figure 20 Average Number of Dwelling Fires Ellesmere Port 2007/08 – 2011/12





2007-11 Total average incidents per year = 43
Figure 21 Average Number of Dwelling Fires Ellesmere Port 2012/13
– 2016/17



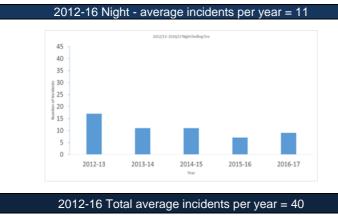


Table 1 Ellesmere Port Dwelling Fires by % Time of Day

Hour	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Total	
0	0.7%	0.5%	0.5%	0.5%	0.7%	0.2%	0.5%	3.6%	
01	0.5%	0.0%	0.5%	0.2%	1.0%	0.7%	0.5%	3.4%	
02	0.2%	0.2%	0.2%	0.5%	0.2%	0.0%	0.5%	1.9%	ㅂ
03	0.2%	0.0%	0.5%	0.2%	0.0%	0.5%	0.0%	1.4%	SHIFT
04	0.2%	0.0%	0.7%	0.5%	0.0%	0.0%	0.5%	1.9%	NIGHT
05	0.0%	0.0%	0.2%	0.2%	0.5%	0.2%	0.7%	1.9%	ž
06	0.0%	0.0%	0.5%	0.2%	0.0%	0.5%	0.0%	1.2%	
07	0.0%	0.2%	0.5%	0.2%	0.2%	0.7%	0.0%	1.9%	
08	0.0%	1.0%	0.7%	0.5%	1.0%	0.5%	0.5%	4.1%	
09	0.5%	0.5%	0.5%	0.2%	0.5%	1.0%	0.7%	3.8%	
10	0.7%	0.2%	0.5%	0.2%	0.5%	0.2%	0.5%	2.9%	
11	0.7%	0.5%	0.0%	0.5%	0.2%	0.7%	0.7%	3.4%	
12	1.2%	0.0%	1.0%	0.7%	0.2%	0.7%	1.2%	5.0%	Ŀ
13	0.5%	0.5%	1.0%	0.5%	0.5%	1.0%	1.0%	4.8%	SHIFT
14	1.2%	0.2%	1.4%	0.2%	0.5%	1.0%	0.7%	5.3%	DAYS
15	0.5%	0.0%	0.7%	1.2%	0.2%	0.7%	1.4%	4.8%	۵
16	1.2%	1.2%	1.0%	0.2%	1.7%	0.7%	1.2%	7.2%	
17	1.0%	1.0%	1.2%	1.0%	1.9%	1.9%	0.7%	8.6%	
18	1.0%	1.0%	1.2%	0.5%	1.0%	1.0%	0.2%	5.8%	
19	0.7%	2.4%	1.4%	1.7%	2.2%	1.2%	0.7%	10.3%	
20	1.0%	0.5%	1.0%	1.0%	1.0%	0.5%	0.5%	5.3%	ㅂ
21	1.2%	0.2%	1.2%	0.5%	1.0%	0.2%	0.5%	4.8%	SHIFF
22	1.0%	0.5%	0.0%	0.7%	0.5%	0.0%	0.0%	2.6%	NIGHT
23	0.0%	1.4%	0.0%	0.7%	0.0%	0.7%	1.2%	4.1%	ž
Total	14.1%	12.0%	16.3%	12.9%	15.3%	14.9%	14.4%	100.0%	

Data source: Cheshire Fire and Rescue Service – Incident Recording System Data.

Note: this data is based on station boundary as it is

Note: this data is based on station boundary as it is now and not as it was at the time of incident. This is due to station boundary changes since ERP1 plan implemented.

When comparing the five year time period 2007/08 to 2011/12 and 2012/13 to 2016/17 dwelling fires in Ellesmere Port station area have reduced from an average of 43 to 40 incident per year (Figure 20, Figure 21).

The time of day identified as having the greatest percentage of incidents by volume, is between 19:00 to 20:00 hours (Table 1)

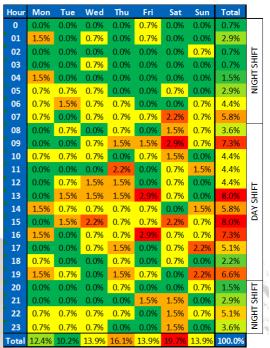
<sup>&</sup>lt;sup>1</sup> Dwelling Fires are fires in properties that are a place of residence i.e. place occupied by households such as houses and flats, excluding hotels/hostels and residential institutions. Dwellings also includes non-permanent structures used solely as a dwelling, such as houseboats and caravans.

#### 2.1.5. Life Risk Incidents – Road Traffic Collisions (RTC's)

Cheshire Fire and Rescue Service categorise Road Traffic Collisions<sup>2</sup> (RTC's) as life risk incidents Figure 22 Average Number of RTC's Ellesmere Port 2007/08 –



Table 2 Ellesmere Port RTC's by % Time of Day



Data source: Cheshire Fire and Rescue Service – Incident Recording System Data.

Note: this data is based on station boundary as it is now and not as it was at the time of incident. This is due to station boundary changes since ERP1 plan

implemented.

When comparing the five year time period 2007/08 to 2011/12 and 2012/13 to 2016/17 road traffic collisions (RTC) in Ellesmere Port station area have reduced from an average of 14 to 11 incidents per year (Figure 22 & Figure 23)

The times of day identified as having the greatest % of incidents by volume, is between 08:00 to 09:00 and between 13:00 to 17:00 hours (Table 2)

Year

<sup>2012-16</sup> Night - average incidents per year = 3

2012/13-2016/17 Road Traffic Collision Night

18
16
14
19
12
2012-13
2013-14
2014-15
Year

2012-16 Total average incidents per year = 11

<sup>&</sup>lt;sup>2</sup> An RTC is any collision, classified as a special service, attended by an appliance or officer within Cheshire.

#### 2.1.6. Fire engine Attendance Times in Ellesmere Port Station Area – Cheshire Standard

## Current – Attendance Times - Wholetime Duty System

Table 3 Ellesmere Port – Average Attendance Times for First, Second and Third Fire Engines to incidents

Duty System Configuration		Average attendance	Average attendance time for 2 <sup>nd</sup>	Average attendance	Performance -Cheshire		
		Fire engine 1	Fire engine 2	time for 1 <sup>st</sup> fire engine to arrive	fire engine to arrive	time for 3 <sup>rd</sup> fire engine to arrive	Standard
Α	Ellesmere Port Current Performance	Wholetime	Wholetime	5min 11sec	6min 45sec <sup>a</sup> +1min 34sec	11min 44sec	99.5%
В	Ellesmere Port - On-call fire engine**	Wholetime	On-call	<sup>b</sup> 4min 40sec	7m 30sec °+ 45sec	10min 38sec	98.4%
O	Ellesmere Port – Remove the On- call fire engine**	Wholetime	NA	4min 41sec	7min 38sec	12min 21sec	97.9%
D	Ellesmere Port (Officers Professional Judgment)	Wholetime	On-call	5min 11sec	7m 30sec	11min 44sec	98.4%
Е	Cheshire Current Performance	Var	ious	7min 55sec	10min 16sec	14min 37sec	88%

<sup>\*</sup>Data complied with fire engine delay of 90secs Wholetime and 5 minutes for on-call.

Table 3 reports the attendance times to life risk incidents and the performance against the Cheshire Standard, whilst comparing the average performance for Ellesmere Port station area verses the whole of Cheshire.

The data in table 3 has been compiled from Cheshire Fire and Rescue Service Incident Recording System and Phoenix. Phoenix was designed in conjunction with UK fire services and is a powerful workload modelling and deployment application for Public Safety organisations. Phoenix analyses mobilisations and resources to model current performance and then compares that to any changes that are made to the configuration of the Service.

**Table 3, Row A**: This row shows the current average attendance time for the first, second and third fire engine to incidents in Ellesmere Port. It can be seen that currently the second fire engine arrives 1 min 34 sec after the first fire engine<sup>a</sup>. Given both fire engines in Ellesmere Port are currently wholetime one would expect that they would arrive at the same time. However, this falsely assumes that both fire engines are on station and that for all incidents requiring two fire engines both are the first two fire engines to arrive. Ellesmere Port's fire engines constantly move around, especially during the day. For example, one of Ellesmere Port's fire engines spends around 100 day shifts out of the Ellesmere Port station area which means a neighbouring fire engine attends if two pumps are required. Furthermore, depending on the location of the incident, Ellesmere Port's first fire engine may be mobilised with a neighbouring fire engine rather than Ellesmere Port's second fire engine. All of these complications emphasise the importance of modelling software, such as Phoenix, to support judgements on the effects on fire engine attendance times as a result of changing the crewing arrangements and the operational configuration of CFRS.

<sup>\*\*</sup> Phoenix Predicted Performance

**Table 3, Row B**: This row shows the Phoenix modelling software prediction for average attendance time of the first, second and third fire engine to life risk incidents in Ellesmere Port with one wholetime and one on-call fire engine at Ellesmere Port. The prediction for the first fire engine attendance time appears accurate in that it shows a minor variation (-31 sec<sup>b</sup>) against the current actual (Row A). The second fire engine attendance time has increased by <sup>c</sup>45secs when compared with the actual (Row B vs Row A).

Again, this prediction appears realistic after considering the explanation above. It is however less than the original assumption that second fire engine attendance time would increase by 3min 30secs. The original assumption was a crude estimate, based on the difference between on-call and wholetime turnout times (5min vs 1.5min).

Reference the third fire engine response, the Phoenix software predicts that its' response time will improve on the current performance by 1m 04sec. This improvement is because Phoenix assumes¹ that Ellesmere Port's second on-call fire engine will be on station whereas the current actual performance is influenced because Ellesmere Port's second fire engine moves around its station area and also spends around 100 days out of the station area. To validate the prediction further, Officers have assessed the actual attendance times for neighbouring pumps into Ellesmere Port. The results are included within Table 5, p25 and average at 12:13, which concurs with the third fire engine actual attendance time. After considering above, Officers believe it would be prudent to assume that third fire engine response time will remain as now.

**Table 3, Row C:** This row shows that if the on-call pump was removed completely from Ellesmere Port it would have negligible impact on first and second pump response times in the area (Row B vs C). ). It would however have an impact on the third fire engine response time, which would increase by 1 min 43 sec but would still be 2 min 16 sec better than the Service average (Row B vs C). These findings accord with the views of officers in that the proposed on-call fire engine at Ellesmere Port would operate as a resilience fire engine (for reliefs and standby/area cover moves) rather than as primary response resource. Its inclusion in the overall plan for Cheshire would maintain the same number of fire engines (35) in line with the strategic direction provided by Members previously.

**Table 3**, **Row D**: This row brings together the above analyses and Officers professional judgement to determine the most likely response times in Ellesmere Port if the second fire engine changes to on-call. It can be seen that the first and third fire engine response times are not expected to change and will remain faster than the Service average. (Row D vs Row E). The second fire engine response time will increase by °45sec but this remains faster than the Service average. (Row D vs Row E). In relation to the Cheshire Standard performance, it is anticipated that this will remain as now at 99%, which is above the Service average of 88%.

**Table 3, Row E**: This row shows the actual Service average for first, second and third fire engine attendance.

#### Notes:

<sup>1</sup> Phoenix modelling software provides an indication of performance based on the operational configuration/crewing models for the Service. Following feedback and suggestions from the independent consultant Officers have refined some of the assumptions within Phoenix as follows:

- 1. 100% availability for wholetime fire engines and located on their home station.
- 2. Actual availability for on-call fire engines and located on their home station.
- 3. 85% availability for Crewe on-call fire engine and located on its home station.
- 4. 40.4% Day and 63.7% Night availability for the on-call fire engine at Ellesmere Port and located on its home station.
- 5. A delay of 90 seconds for wholetime and a delay of 5 minutes for on-call.

The above changes have improved accuracy but there is still some variance with actual performance and therefore the outcome should be used as an indication to support Officers professional judgement.

## 2.1.7. Actual Attendance Times for Neighbouring Fire Engines (5 years data includes mobilisation and travel time).

Table 4 Average Attendance Times of Neighbouring Fire Engines into Ellesmere Port

Neighbouring Stations	5 Year Average (2012/13 – 2016/17)	No. Attended	Average per year
E07 Powey Lane	00:09:18	14	-
E06 Frodsham	00:10:46	21	4
E09 Chester (E09P1/E09P2)	00:11:39	220	44
E05 Runcorn (WT)	00:16:37	19	4
E05 Runcorn (OC)	-	-	-
E04 Widnes	00:17:54	19	4

Average Attendance Time for Neighbouring Stations	00:12:13

Data Source Cheshire Fire and Rescue Incident Recording System

To provide further rigour and evidence of the attendance times of neighbouring fire engines to Ellesmere Port, Officers have interrogated the Cheshire Fire and Rescue Service Incident Recording System to identify what the average attendance time of neighbouring fire engines to Ellesmere Port has been when responding to incidents between 2012/13 and 2016/17. This has been calculated by time of alert and time in attendance.

Table 4 includes the average attendance time and the number of attendances of each individual fire engine.

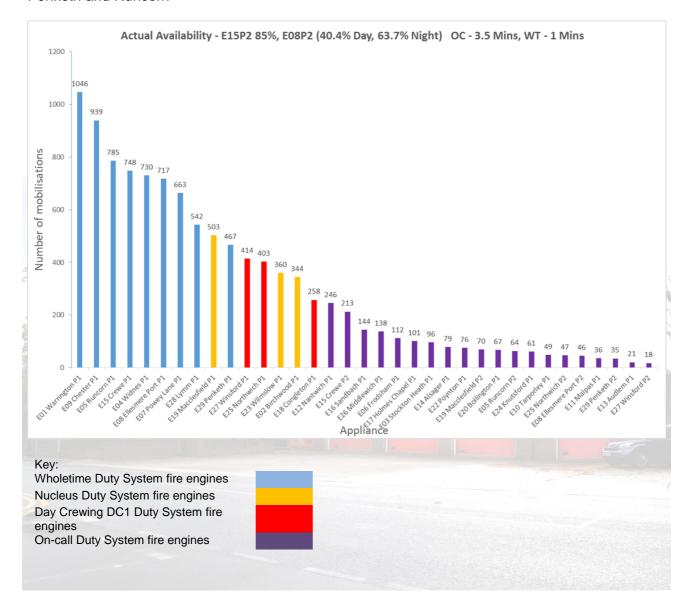
The average time of 00:12:13 for all neighbouring fire engines has been compiled by taking an average of all the attendances within Ellesmere Port station area by these fire engines.

Note: Following home office guidelines, all attendance times, which were below 1 minute and over 1 hour, were excluded from this data set.

#### 2.1.8. Predicted Fire Engine Incident Mobilisations - Emergency Response Plan 1

Figure 24 Predicted ERP1 Incident Mobilisations per Fire Engine (5 year average)

Delay Times: Wholetime 1min, On-call 3.5mins. Actual on-call availability: Crewe On-call modelled at 85% and Ellesmere Port modelled at the average of the on-call fire engines at Penketh and Runcorn



Data Source Cheshire Fire and Rescue Incident Recording System - Modelled with Phoenix Active Software

As stated in section 2.1.6 the assumptions within 'Phoenix' when providing predictive modelling were refined after recommendations made by Michael Wright of Greenstreet Berman.

Figure 24 utilised the new assumptions to predict mobilisations per fire engine and by applying this criteria the Service have obtained a more accurate prediction of fire engine mobilisations.

In relation to mobilisations it is now predicted that the on-call fire engine at Ellesmere Port would be mobilised on only 46 occasions per annum.

#### Note:

The mobilisation time used for the Ellesmere Port on-call fire engine is 5 minutes.

The on-call availability figures used to predict the Ellesmere Port on-call fire engine mobilisations are an average of the on-call availability figures for the on-call fire engines at Runcorn and Penketh. These are stations where the Service has previously implemented a wholetime and on-call fire engine at the same station

## 2.1.9. Community Safety / Prevention-Protection Activity Levels

Table 5 Community Safety and Prevention/Protection Work - Safe and Well Visits

	Current	Anticipated	Average
Ellesmere Port	2 WT	1 WT 1 OC	1 WT Fire Engine
Safe and Well (High Risk)	708	708	Various
Safe and Well (Other)	1980	636	Various
Total	2688	1344	1344

This section explores the potential impact on prevention activities in Ellesmere Port as a result of reduced capacity due to one of the fire engines changing from wholetime to on-call.

Officers have assessed the prevention workload demand and compared it with existing wholetime stations with one fire engine to determine the extent to which the current performance outputs at Ellesmere Port will not be maintained. It can be seen that the number of visits to high-risk homes will not change, neither will the number of school visits, road safety initiatives, safety campaigns and thematic inspections of business premises. However, the number of visits to lower risk homes would be expected to reduce by 1344 per year.

Table 6 Community safety and prevention work - Road Safety, Business Safety and Key Stage 2

	Current	Anticipated	Average
Ellesmere Port	2 WT	1 WT 1 OC	1 WT Fire Engine
Road Safety Initiatives	9	9	9
Businesses (Thematic)	176	176	176
School – KS2	20	20	23
Community Initiatives/Campaigns	6	6	6

## 3. An analysis of the types of incidents dealt with.

#### Methodology

#### Aim and Scope of Analysis

The aim of the analysis is to identify the type of operational activity in the Ellesmere Port station area and the impact this has on the community.

Officers will make an assessment of the analysis compiled and will note within the report their professional judgement.

#### Key issues are:

- What are the average numbers of incidents per year in Ellesmere Port by type?
- What are the most frequent incident types attended in the Ellesmere Port area?
- What has been the impact of dwelling fires in Ellesmere Port compared with Cheshire?
- What has been the impact of road traffic collisions in Ellesmere Port compared with Cheshire?
- Has there been an increase in deliberate fire trends in Ellesmere Port?
- Have there been incidents in Ellesmere Port that have required a response from wider areas of Cheshire?

#### Analysis of the Types of incident in Ellesmere Port

- The incident type and average number of incidents in Ellesmere Port station area.
- Life Risk dwelling fires & impact on the community
- Life Risk road traffic collisions & impact on the community
- Incidents that have required an attendance of appliance from across Cheshire, 5 or more fire engines.

#### Approach to the assessment

Officers have worked with the Business Intelligence Unit and Michael Wright of Greenstreet Berman to gather and interrogate intelligence. Cheshire Fire and Rescue Service have produced a report, with this appendix as an integral part, along with the report from Greenstreet Berman, which validates Officers' work.

#### **Data Sources and Information requested**

Cheshire Fire and Rescue Service – Incident Recording System Data

#### Assessment criteria

Acquire data from Cheshire Fire and Rescue Incident Recording System, relevant to the areas of scope for the Ellesmere Port station area for the 5 year period prior to the initial decision making process (2007/08 – 2011/12) and the for the 5 year period post the initial decision making process (2012/13 - 2016/17).

The assessment of all data will be undertaken between the time period 2007/08 to 2016/17 unless stated within titles or the narrative.

## 3.1. Incident Type and Average Number of Incidents in Ellesmere Port Station Area – 2007-2001 and 2012 – 2016

Table 7 Average Number of Incidents by Type 2007-2011 Table 8 Average Number of Incidents by Type 2012-2016

	Incident Type	Total
	Dwelling Fires	43
	Non Domestic Property Fires	20
Fi e	Primary Vehicle Fires	67
证	Other Primary Fires	19
	Secondary Fires	339
	Chimney Fires	1
SSC	RTCs	14
SS	Other Special Service Calls	65
a E	Fire alarm due to Apparatus	140
False Alarm	Good Intent False Alarm	93
π. 4	Malicious False Alarm	12
	Total	813

	Incident Type	Total
	Dwelling Fires	40
	Non Domestic Property Fires	13
Fi e	Primary Vehicle Fires	21
证	Other Primary Fires	9
	Secondary Fires	199
	Chimney Fires	0
	RTCs	11
SSC	Other Special Service Calls	76
•	NWAS - Gaining Entry	21 9 199 0 11 s 76 7 us 109
o F	Fire alarm due to Apparatus	109
False Alarm	Good Intent False Alarm	93
π 4	Malicious False Alarm	10
	Total	588

Ellesmere Port Average Number of Incidents p.a.2007-2011

Ellesmere Port Average Number of Incidents p.a.2012-2016

Figure 25 Annual Average Incidents Within Ellesmere Port Station Area - Comparing 2007-11 against 2012-16

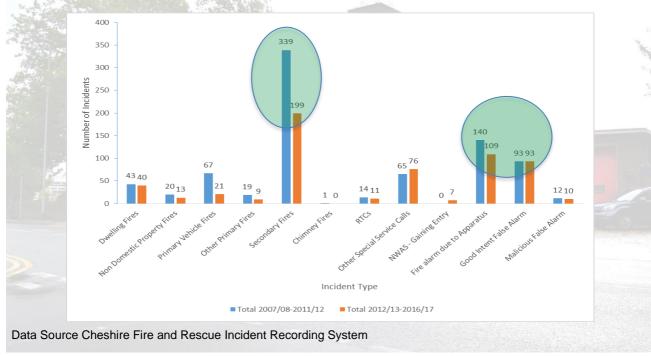


Table 7 & 8 show the average number of incidents in Ellesmere Port split by type; one new category has been added to Table 8:

NWAS – Gaining Entry (Forced Entry) - now business as usual.

When comparing the five-year time period 2007/08 to 2011/12 and 2012/13 to 2016/17 for each incident type it can be seen that all categories except 'other special service calls' have reduced.

The most frequent types of incident attended are false alarms, which make up 34% of incidents attended and secondary fires, which also make up 34%.

While the number of false alarms has reduced slightly, the number of secondary fires has decreased by over 41% when comparing averages between 2007-11 and 2012-16.

## 3.2. Life Risk - Dwelling Fires Community Impact

#### Cheshire



40% Dwelling Fires were out on arrival/no firefighting intervention



Ellesmere Port

32% Dwelling Fires were out on arrival/no firefighting intervention



88% Dwelling Fires were confined to the room of origin



88% Dwelling Fires were confined to the room of origin



86% of Dwelling Fires attended had a smoke alarm fitted



79% of Dwelling Fires attended had a smoke alarm fitted



26 Fatal (over 5 years) 16 Severe Injuries (over 5 years) 205 Slight Injuries (over 5 years)



2 Fatal (over 5 years)3 Severe Injuries (over 5 years)12 Slight Injuries (over 5 years)

Data Source Cheshire Fire and Rescue Incident Recording System

Specifically in relation to life risk incidents and the impact of dwelling fires on the community in the five years since the original IRMP decision-making process, there have been an average of 40 dwelling fires attended per year in the Ellesmere Port station area.

Of the dwelling fires; 88% were confined to the room of origin and 32% were out on arrival or required no firefighting intervention. Over five years, these incidents have resulted in 2 fatalities, 3 severe injury and 12 slight injuries

#### 3.3. Life Risk – Road traffic Collisions Community Impact

#### Cheshire



33% of RTCs attended involved an extrication



Ellesmere Port



65 Fatal (over 5 years) 370 Severe injuries (over 5 years) 974 Slight injuries (over 5 years)



31% of RTCs attended involved an extrication

1 Fatal (over 5 years) 6 Severe injuries (over 5 years) 25 Slight injuries (over 5 years)

Data Source Cheshire Fire and Rescue Incident Recording System

Specifically in relation to life risk incidents and the impact of road traffic collisions on the community in the five years since the original IRMP decision-making process, there have been an average of 11 road traffic collisions attended per year in the Ellesmere Port station area.

31% of these incidents attended required the Service to extricate a casualty and in the five years to 2016/17, there have been 1 fatality, 6 severe injuries and 25 slight injuries resulting from road traffic collisions in the Ellesmere Port station area.

## 3.4. Large / Major Incidents

## Table of Multi Fire Engine Incidents Starting At 5 Fire engines

Table 9 Multi Fire Engine Incidents Ellesmere Port (Greater than 5 fire engines)

ı	Multi Fire E	ngine Inci	dents - Elle	esmere Po	rt	
Number of Fire Engines	Year					
	2012-13	2013-14	2014-15	2015-16	2016-17	Grand Total
5		2			2	4
6	1	1		1	1	4
7					1	1
8						0
9	1		1			1
10+			- 17			0
Grand Total	1	3	1	1	4	10

Data source: Cheshire Fire and Rescue Incident Recording System

This section outlines the number of larger incidents within the Ellesmere Port station area between 2012 – 2016 (Table 9) and the predicted response time to provide ten fire engines in the event of a large-scale incident in Ellesmere Port. (Table 10,11)

It can be seen that the number of incidents requiring an immediate response of 5 fire engines or more is very low, amounting to 2 occasions per year (Table 9)

The attendance of 5+ fire engines to an incident is usually at the request of the incident commander after undertaking a situational assessment and a dynamic risk assessment of the incident they are attending.

#### Response to Multi Fire Engine Incidents

Table 10 – 10 Fire Engine Response to Ellesmere Port Table 11 - 10 Fire Engine Response to Ellesmere Port No OC Available OC Availability

10 fire engines - Ellesmere Port	00:22:26	10 fire engines - Ellesmere Port	00:29:00
-------------------------------------	----------	-------------------------------------	----------

The prediction shown in Table 10 & 11 shows that if 10 fire engines were required at an incident in the centre of Ellesmere Port, they are expected to attend within 22 mins; this assumes that all of the on-call fire engines are available. If no on-call fire engines were available then the response time would increase to 29 minutes. To draw a comparison, eight fire engines responded to the explosion at Bosley Wood Flour Mill within 47 minutes of the request from the Incident Commander. Note: the above estimates were provided by North West Fire Control (mobilising system) and assume that all attending fire engines are available at the time of call.

The NWFC created a simulation within the mobilising system to identify the fire engines and attendance times to incident at a central point in Ellesmere Port. The system assumes that all fire engines on all duty systems are available and on home station.

The assumptions used for Table 11 were the same assumptions, except that all Cheshire on-call fire engines were not available.

There were some concerns raised about the response to Control of Major Accident Hazard (COMAH) registered sites in and around Ellesmere Port.

On the May 2017 COMAH establishment listing, Cheshire had 30 high-risk COMAH sites and 17 low risk COMAH sites registered. Of these sites, there were 7 high-risk sites and 3 low risk sites in Ellesmere Port. There would be no change to the initial number of fire engines responding to these sites, any subsequent response would be at the request of the incident commander and would be facilitated by North West Fire Control.



#### 4. On-call Context

When the review is considered, Fire Authority Members will need to understand the up-to-date position in relation to on-call recruitment and training and be provided with an assessment of the likely ongoing situation.

#### Methodology

#### Aim and Scope

The aim of the information provided in this section is to identify the current status of the on-call recruitment at Ellesmere Port.

Within scope are the following key issues related to the 2<sup>nd</sup> fire engine at Ellesmere Port operating the on-call duty system:

- How many on-call staff have been recruited at this time?
- How many staff are still required to be recruited to provide a full on-call cohort?
- What is the timeline for these staff to be recruited and trained?
- What is the plan to recruit the additional on-call staff?

#### Assessment of On-call in Ellesmere Port

- On-call Recruitment
- On-Call Recruitment Training Timeline
- On-Call Recruitment Recruitment Plan New Staff
- Recruitment Area Households/Demographics
- On-call Duty System Transition Plan
- Conclusion

#### **Data Sources and Information requested**

- Cheshire Fire and Rescue project planning records
- Cheshire Fire and Rescue Service human resource information
- Cheshire Fire and Rescue Service PDRpro training record information.

## 4.1. On-call Recruitment

On-Call Recruitment - Current Progress

## **Ellesmere Port On Call Firefighters**

- 5 Firefighters (Development)
- 1 Watch Manager
- · 1 Crew Manager

Total = 7



#### TIMELINE

- 6 months recruitment
- 18 months Units 3, 4 & 5
- Minimum 2 years from CFA approval before 'go live' April 2020

On-call Recruitment activity at Ellesmere Port commenced in January 2015 as part of an overall on-call fire fighter recruitment campaign, this was part of simultaneous on-call recruitment across the Service at other new on-call station locations and the established on-call stations. During this period the Service successfully recruited full on-call cohorts at Penketh, Alsager, Knutsford and Stockton Heath.

The recruitment campaign for Crewe became more focused from July 2016, as follows:

- 17 media posts between and July 2016 and February 2017
- Face to Face with local businesses
- Numerous taster days at the station and various events
- Further leaflet drop by crews
- Writing to wholetime who lived within the 5 minute radius regarding wholetime/on-call contracts

On-call recruitment at Ellesmere Port was suspended as a result of Members requesting a review into the duty system for the second fire engine. At the time of suspending the recruitment there were no individuals pending in the recruitment system.

The 5 personnel recruited as on-call fire fighters at Ellesmere Port (One of the firefighters has recently resigned in January 2018) had either commenced employment or offered employment to commence on an initial course in January 2017. There are a further two wholetime staff who have expressed an interest in commencing on-call duties at Ellesmere Port; these are on hold until the outcome of the review.

## 4.2. On-call Recruitment – Recruitment Plan New Staff

Listed below is the key activities within the project plan to launch a new on-call fire engine at Ellesmere Port in April 2020.

- Re-establish the Ellesmere Port (cross-departmental) on-call Recruitment Team lead by Cheshire West Service Delivery Manager, supported by the local Station Manager and identified departmental leads.
- Re-establish the Service on-call media activities.
- Supply Recruitment Team with Ellesmere Port MOSAIC Data (see 4.3)
- Establish communication plan to engage the MOSAIC priority households identified within 5 minutes of Ellesmere Port Fire Station.
- Undertake bespoke on-call recruitment activities in Ellesmere Port.
- Validate proposed cover patterns of prospective recruits.
- Validate travel times to the fire station to ensure that the 5-minute standard can be achieved.
- New recruits to commence initial training.
- Shadow pump to launch at Ellesmere Port to expose recruits to operational incidents and provide opportunity to validate cover patterns and attendance times. (May 2018)
- Recruit full cohort 1 WM, 2CM, 12 Firefighters (Sept 2018)
- Recruits to complete Units 3, 4 & 5. (March 2020)
- On-call fire engine to 'go live' (April 2020)

Table 12 On-call implementation timeline

Feb Mar	Mar Apr	r May	Jun Ju	Aug	Sep (	Oct No	v Dec	Jan	Feb	Mar
									-	. A.

## 4.3. On-call Recruitment Area – Households/Demographics

Figure 26 Map Travel Time 5 & 7 minutes from Ellesmere Port Fire Station – normal road speed (no blue lights)

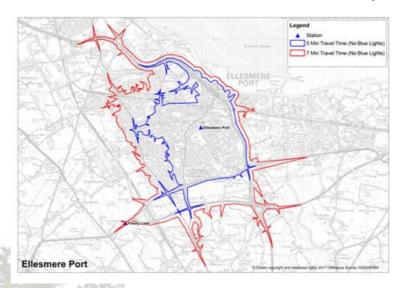


Table 13 MOSAIC priority recruitment groups Ellesmere Port

Rank (based on current cohort)	Mosaic Group	E.Port Household Count	%	Tarporley Household Count	%
1	D Domestic Success	511	3.4%	56	3.8%
2	H Aspiring Homemakers	1259	8.3%	28	1.9%
3	E Suburban Stability	1546	10.2%	63	4.2%
4	G Rural Reality	0	0.0%	311	20.9%
5	A Country Living	0	0.0%	379	25.5%
6	J Rental Hubs	234	1.5%	3	0.2%
Total Households	s in Top Mosaic Groups	3,550	23.5%	840	56.5%
Total Househ	olds within 5 Mins	15,133	100%	1,486	100%

Data Source: MOSAIC Public Sector

Further recruitment will target specific households that meet the typical profile for an on-call firefighter using Mosaic Public Sector

'Mosaic Public Sector' is a system for classifying UK households which uses household and individual data collated from a number of governmental and commercial sources

Over 850 million pieces of information across 450 different data points are condensed using the latest analytical techniques to identify 15 summary groups and 66 detailed types that are easy to interpret and understand – every household in Cheshire will be categorised into one of these Groups & Types which will help with our targeting approach

Overall there are roughly 266 people across Cheshire employed as an on-call firefighter out of a potential 209,371 people within a 5min travel time catchment of stations that offer on-call posts – these postcodes can be run through a profiler tool to provide us with the Mosaic demographic 'makeup' of both these populations and compare them.

Table 13 shows the top 6 priority Mosaic groups that represent the current on-call employee profile. In total, 167 of the 266 on-call employees fall within the top 6 groups.

The analysis indicates that 3,550 of the 15,133 households within five minutes travel time of Ellesmere Port fire station that fall within the top six priority groups for on-call recruitment. This provides a large pool of potential applicants, which is 4 times the number of priority households within the on-call catchment area of Tarporley Fire Station. This has given officers confidence that recruitment should be achievable with the right targeted activity.

## 4.4. On-call Duty System - Turnout Time and Availability

It is predicted that the on-call fire engine will be mobilised on 46 occasions per year, one mobilisation in every 15 days on average. It is acknowledged that the time taken for on-call fire engines to turnout to incidents varies. For example, mobilisation is likely to be slower during the daytime (especially during rush hour) than at night time. However, overall the fire engine should achieve an average turnout time of 5 minutes (the current average turnout time for on-call fire engines is 4 mins 53 secs).

#### 4.5. On-call Conclusion

In relation to on-call recruitment; there are 15,133 target households within 5 minutes of the station, which provides many opportunities to increase the current establishment of 6 firefighters up to 15 within 8 months. Achieving this timescale would result in an expected 'go live' date for the on-call fire engine of April 2020.

If one of the fire engines at Ellesmere Port is changed to on-call its' anticipated activity levels would make it one of the least busy on-call fire engines in the Service. The low incident volume may not support recruitment and retention in the future and therefore the on-call model may not be sustainable.

If the on-call fire engine were not available, it would not impact on response times of the first and second fire engine to incidents in Ellesmere Port because of the new station at Powey Lane. It would however affect third fire engine response in the area and would mean that the Service had one less resilience fire engine available.