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| Meeting | Service Leadership Team | Agenda Item No. | 4k |
| | Performance and Resources Board | | 19 |
| Meeting Date | 9 March 2021 | | |
| | 31 March 2021 | | |
| Report Author | AM James Palmer | | |
| Presented By | Moira Bruin, Director of Operations | | |
| Subject | Dovercourt Station Areas - Risk | | |
| Type of Report | Information | | |

Linked with P&R Action Points 07/21 and 08/21

RECOMMENDATIONS

This paper should be read in conjunction with January P&R Board agenda items:

- On Call Conversion Next Steps
- Key Stations Policy
- Dovercourt Action Plan (March update in the P&R Pack as item 20)

OVERVIEW

This paper gives an overview of the community and operational risk that exists in the Dovercourt station ground and the historic demand for Fire response in this area.

The paper gives assurance that the Service considers that the risk that exists on this station ground can be adequately met by the provision of an On-Call two pump fire station which has key station status (the key station policy provides the basis for Service Control to ensure that cover moves are made to ensure that resources are always available in the area). The Service will ensure that there is a resource available to be deployed at all times in the Dovercourt/Harwich area.

Essex County Fire and Rescue Service (ECFRS) mitigates this community and operational risk by:

- Taking steps to develop the means to better target Prevention activity using the following workstreams: Live Safe (Accidental Dwelling Fires / Deliberate Fires), Road Safe, Water Safety (Flooding, Drowning), Safeguarding and the development of a HARM model.

- Protection and Response work including a Risk Based Inspection Programme and Operational Risk Information.
- Ensuring the availability of a response capability and the meeting of our response targets in the area by:
 - A targeted recruitment and development programme as outlined in the Dovercourt Action plan and monitored via the Monthly Dovercourt Update papers
 - Robust governance over the On-Call Conversion project
 - Transitional support arrangements to support the transition of Dovercourt from Day-crewed to On-Call
 - Supporting the availability of Dovercourt by using the same means as used to successfully support the availability of Whole-time stations
 - The use of the Key Station policy to ensure the maintenance of fire cover in the Dovercourt area.

BACKGROUND

Within the ECFRS Integrated Risk Management Plan 2016-20, a key aspect was a move away from Day-crewed stations at Dovercourt, Great Baddow, Great Dunmow, South Woodham Ferrers (SWF) and Waltham Abbey. Great Dunmow was completed in 2017, and Dovercourt transitioned to On-Call in April 2020, becoming a 2 pump On-Call station, albeit still be supported by Wholetime resources.

When the Project 2020 work started in 2016 / 17 work around the crewing levels and standards based on the locations of risks, stations, availability, and turnout times was undertaken by ORH. This work founded the basis for the converting stations and the model used to change the duty system at Dovercourt and the other 3 stations. This activity was recently undertaken again by Process Evolution as part of the IRMP process, this work reiterated and underlined that our initial process and decisions were still correct and that stations and appliances where in the right place and the right crewing method based upon risk.

The services' Response Strategy is currently in review and is being cross referenced to the Fire and Rescue Plan and services' IRMP and the work on risk undertaken by Process Evolution which will reaffirm our current standards of a response to all Potential Life-threatening Incidents within 10 minutes and all incidents within 15 minutes. Both of these Response standards are being met at Dovercourt and exceeded in many cases.

This paper sets out to provide a narrative around the risk within the Dovercourt station ground and provides assurance that the risk can be mitigated through the provision of a 2 pump On-Call station.

The paper draws on historical incident data and response times within the area to, outline the demographics of the area and the risk from the built environment.

1. Community and Operational Risk– Dovercourt Station Ground

The groups most at risk from fire are adults over the age of 65, single adult households, lone parent households with dependent children, those with physical disabilities, people with mental health problems, aging populations (links to dementia), those that smoke or drink heavily and people that face significant deprivation.

Key figures about the people and households in Harwich Built-up area in East.

Note, that the station ground of Dovercourt also encompasses the surrounding wards/parishes to this area.

Figures are sourced from the 2011 Census key statistics and obtained from a Local Area Report generated by the Office for National Statistics. There were 20,723 residents as at Census day 2011. Appendix 1 shows the information available for this area which indicates a resident profile presenting no additional levels of risk.

The built and natural environment

Infrastructure (from ECFRS Strategic Assessment of Risk (SAOR))

- **Road.** The A120 provides an important link between the M11, the A12 and the east coast port of Harwich and is part of the Trans-European Network (TEN) connecting east coast ports with the rest of the UK, as far as Holyhead and the Republic of Ireland.
- **Rail.** Network rail routes between London and Manningtree/Harwich carry a high volume of freight traffic to and from the ports at Harwich and Felixstowe. Much of this traffic is containerised, and includes a wide variety of cargos, including hazardous substances.

Petrochemicals (from ECFRS SAOR)

Speciality hydrocarbons are imported and exported via Harwich through the Haltermann Carless Ltd site next to the Port, employing approximately 100 people. This site is the only fuel refining facility within Essex. The site comes under the 'Control of Major Accident Hazards regulations' 2015 (COMAH). Every year, Petrochem Carless distils up to 500,000 tonnes of condensates, mainly naphtha, kerosene, and gas oils. Other similar products are imported for processing alongside these products to create a range of speciality products for industry. Nine hectares of the site are currently undeveloped. Storage capacity totals 150,000 tonnes, in 175 storage tanks ranging from 5 tonnes to 1,300 tonnes. Vessels of up to 140m in length can berth at the dedicated deep-water tanker berth. A direct pipeline links the berth to the site.

Future Maritime Port Developments (from ECFRS SAOR)

- A long-term project is the proposed Bathside Bay development of Harwich International Container Terminal, a £300 million deep-water container terminal, currently at the planning stage. There is no indication when this project will begin.

Site Specific Risk information file (SSRIs)

- There are 31 SSRIs in Dovercourt station ground.
- The risk types include 2 COMAH sites, 12 commercial/industrial sites, 3 heritage/historical buildings, 1 hospital, 1 chemical, 1 residential and 1 flood. The remaining 9 SSRIs are associated with Harwich International Port (passenger and freight).

Tactical Fire Plans (TFP)

There are three TFPs for known risk sites in Dovercourt's station ground, 2 of which are COMAH sites.

- Harwich International Port (passenger and freight)
- Exchem Bramble Island (COMAH site - commercial explosives and chemicals)*
- Haltermann/Petrochem Carless Ltd (COMAH site - hydrocarbons)

* Exchem Bramble Island is in the process of decommissioning many parts of the plant and potentially may no longer exist as a COMAH site requiring a TFP in the near future.

Flooding

- ECFRS has attended 15 flooding incidents between January 2017 and December 2020 in Dovercourt Station Ground. 11 of these were making the scene safe.
- ECFRS has attended one incident of rescuing of person who had fallen through ice or at risk of doing so. There was also one incident of a person released from mud.
- There is one Flood Action Plan for Parkston Pump House in Dovercourt Station Ground. It was issued in September 2019 and is due to be reviewed imminently.

Regulated premises

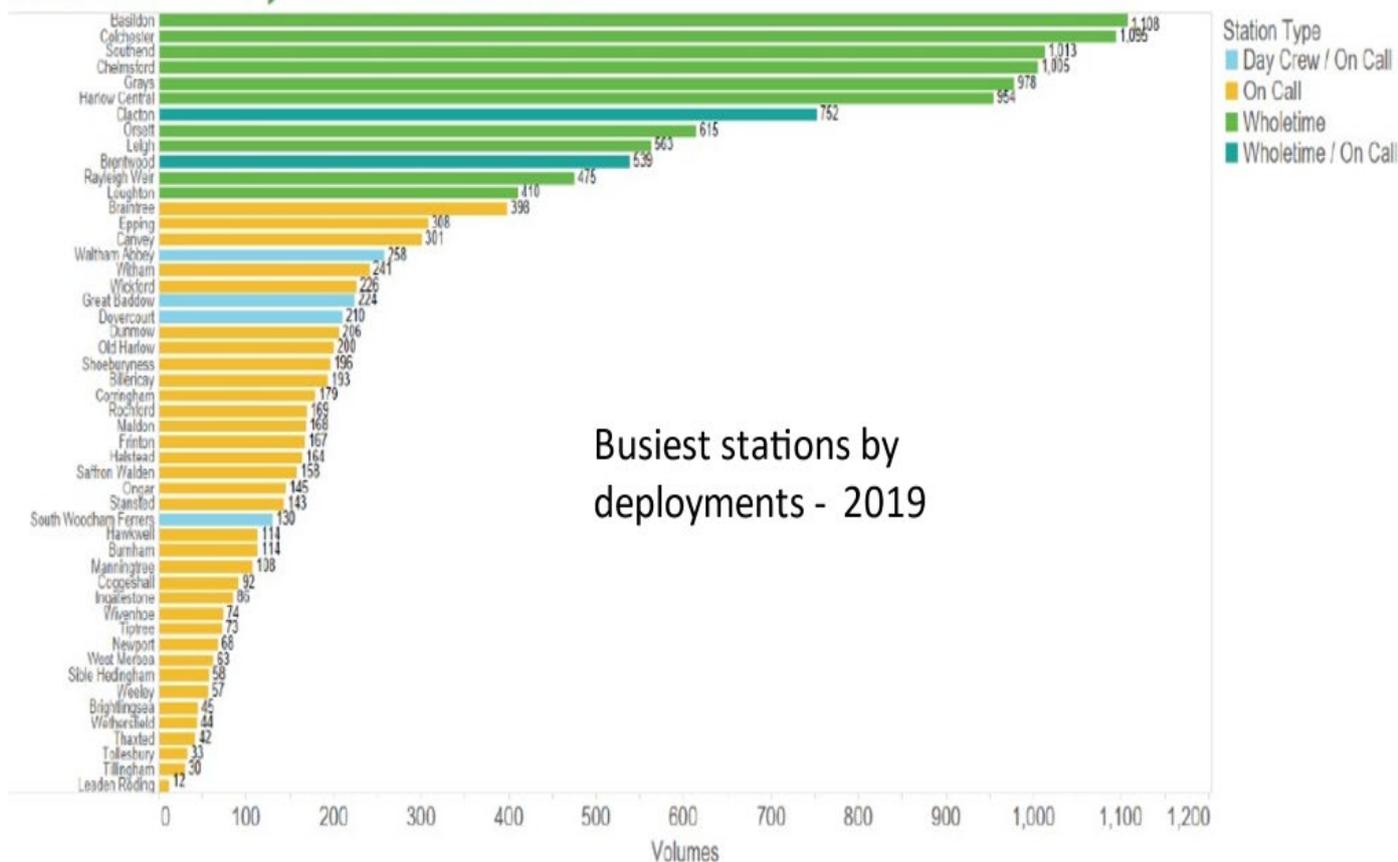
ECFRS Risk Based Inspection Programme identifies the following numbers of Very High and High Risk Premises

- Very high– 24
- High – 35

2. Call Volumes for Dovercourt Station

An analysis of activity levels (2019 – below) demonstrates that Dovercourt Station call volume is comparable with other on call stations within Essex. This is illustrated by the chart below.

Incident Volumes by Station Ground - 2019



There have been 809 incidents attended by ECFRS in Dovercourt station ground over the last four years¹. This equates to 1.4% of all incidents attended by ECFRS within our service area, which is higher than neighbouring station ground (On-Call crewed station with one pumping appliance), Manningtree that attended 0.6% of incidents. Overall, over the four-year period, 32.8% of all incidents (within our geographical boundary) occurred within On-Call crewed station grounds, of which 4.2% occurred within Dovercourt station ground. Higher percentage of incidents occurred in the station grounds of Braintree (7.5%), Epping (6.7%), Canvey (5.7%), Witham (5.1%), Shoeburyness (4.7%), Wickford (4.4%) and Great Dunmow (4.4%) which are On-Call crewed.

Despite the ongoing pandemic, there has been at least 181 incidents attended by an ECFRS on this station ground in 2020, similar to 2018's figures. In 2020, 34% of incidents were either false alarms or fires.

| Incident Category | 2017 | 2018 | 2019 | 2020 | Grand Total |
|--------------------|------------|------------|------------|------------|-------------|
| False Alarm | 81 | 80 | 70 | 61 | 292 |
| Fire | 85 | 65 | 79 | 62 | 291 |
| Special Service | 68 | 46 | 54 | 58 | 226 |
| Grand Total | 234 | 191 | 203 | 181 | 809 |

- Of the 291 fires during the four-year period, 56% were secondary fires, averaging 40 incidents every year. The most common property type involved in

¹ Note, that December 2020's data is likely to be incomplete due to staff availability for quality assurance of incidents over the festive period.

secondary fires in this station ground is loose refuse (23 attendances during the period), with about 5 incidents every year.

- 42% of the fires were classified as primary fires, averaging 30 incidents every year. 29% of these fires were accidental primary fires (includes accidental or deliberate are both possibilities), this equates to a total of 85 fires during the four-year period. In 2020, there has been 30 accidental primary fires, of which 14 were in dwellings or other residential buildings. There has been a total of 35 deliberate primary fires over the same four-year period in Dovercourt station ground.
- 226 special service incidents have been attended by ECFRS appliances in Dovercourt station ground over the four-year period. 21% of these incidents were ECFRS assisting other agencies and 5 were RTCs%.
- Of the 292 false alarms, 41% were due to apparatus, 54% were good intent and 4% were malicious calls. 61 of these were good intent – bonfire, 2018 and 2020 have seen 19 and 22 attendances to these.

The average response time to incidents on Dovercourt station ground where 11P1 and 11P2 were the first appliance in attendance at scene.

| | 2017 | 2018 | 2019 | 2020 | 2017 - 2020 |
|------|------------|------------|------------|------------|----------------|
| 11P1 | 9mins 8s | 9min 51s | 10mins 46s | 10mins 54s | 10 mins |
| 11P2 | 11mins 13s | 10mins 26s | 10mins 9s | 10mins 24s | 10mins and 26s |

- 11P1 and 11P2 have been in attendance to the same incidents 235 times.
- 11P1 has attended the highest number of (first attendances to) incidents on Dovercourt station ground, followed by 11P2.
- Neighbouring appliance, 17P1 (Manningtree) has been the first attending appliance to Dovercourt station ground a total of 14 times over a four-year period. Other pumping appliances in the table have been first in attendance five times or less.

| | 2017 | 2018 | 2019 | 2020 | Grand Total |
|------|------|------|------|------|-------------|
| 11P1 | 202 | 148 | 151 | 93 | 594 |
| 11P2 | 19 | 29 | 45 | 78 | 171 |
| 17P1 | 3 | 6 | 2 | 3 | 14 |
| 12P2 | 4 | 1 | | | 5 |
| 12P1 | 2 | 1 | | | 3 |
| 19P1 | | 1 | 1 | | 2 |
| 18P1 | | | 1 | 1 | 2 |
| 10P2 | 1 | | | 1 | 2 |
| 21P1 | 1 | | | | 1 |
| 10P1 | | 1 | | | 1 |
| 10P3 | | | 1 | | 1 |

3. Risk Implications and Risk Mitigation

The current risks to the Service associated with the move from Day-crewed to On-Call status are:

- Increased response times during the day in conversion station areas
- Ability to maintain availability at each of the converting stations when On-Call status is achieved resulting in an impact on response times locally.

We will address this risk by using a risk-based approach to establish and prioritise the availability of a number of Key and joint Key stations across the County to ensure we can always maintain initial response times. With specific reference to the risk associated within the Dovercourt station ground, the risk profile on the station ground is no greater than other areas of the Service covered by On-Call assets. However there is a greater risk attached to Dovercourt due to the response times that would be incurred should a pumping appliance not be available to respond from the Dovercourt station ground. For this reason, Dovercourt is named as a key station. The Key Station Policy ensures that when required ECFRS moves appliances to cover key stations to enable us to meet our declared response standards.

1. To get our first attendance to Potentially Life Threatening (PLT) calls within an average of 10 minutes from the time we receive the call
2. To get our first attendance to an incident within 15 minutes on 90% of occasions from the time we receive a call

To achieve this, the key station policy also recognises that it is crucial to maintain cover at stations more remote from other resources, such as Dovercourt when Dovercourt is not available or committed to an incident.

Dovercourt changed status to On-Call crewed in April 2020, the target is to attain a Full Time Equivalent (FTE) of 24. Currently there are 15 On Call Firefighters in phase 1-3 giving a FTE of 11.25 (15 X .75).

Whilst we work towards our plan to achieving the optimum FTE at Dovercourt, we have transitional support arrangements in place to maintain availability. Currently have 2 Whole-time OICs and 3 whole-time drivers seconded.

The ongoing plan to achieve optimum FTE and the required number of OICs and drivers to maintain availability at Dovercourt is outlined in the Dovercourt Action plan.

Once Dovercourt has sufficient numbers to enable us to withdraw the current transitional support arrangements, the Service will continue to maintain availability at this key station in the same manner as currently accorded to whole-time key stations.

In recognition of this, ECFRS has a holistic plan to mitigate and respond to the risk. These include the following:

- Dovercourt is named as a key station and as such availability will be maintained.
- Delivery of the risk-based inspection programme targeting resources at those risks that are greatest.

- A prevention strategy and delivery plan that focusses on a person-centred approach to mitigating risk. This ensures that we can provide the best solution to any given people risk.
- ECFRS attendance at the community safety partnerships and hubs
- A robust programme of operational crews exercising at sites that are high-risk
- Regular reviews of Site-Specific Risk information and Tactical Fire Plans. With enabling technology to ensure accurate information is presented to crews when they need it.
- The development of a HARM model to identify comparative risk for a range of data sets across Essex. It should be noted that the first draft of the model has yet to be tested and quality assured.

BENEFITS AND RISK IMPLICATIONS

The Service has identified key organisational risks associated with not moving away from the day-crewing system. These outweigh the risks associated with a move to an On-Call duty system which the service can mitigate using a variety of means including:

- A targeted recruitment and development programme as outlined in the Dovercourt Action plan and Monthly Dovercourt Update papers,
- robust governance over the On-Call Conversion project,
- transitional support arrangements to support the transition of Dovercourt from Day-crewed to On-Call,
- supporting the availability of Dovercourt by using the same means as used to successfully support the availability of Whole-time stations,
- the use of the Key Station policy to ensure that Dovercourt always has fire-cover available.

FINANCIAL IMPLICATIONS

As a declared key station due to being remote from other resources, the Service has committed to support the station in a number of different ways to maintain availability which will continue to have budgetary implications. The appropriate decision sheets will be submitted to outline.

EQUALITY AND DIVERSITY IMPLICATIONS

When conducting attraction, engagement, and recruitment to support the availability of any of our stations, ECFRS will ensure that all policies are complied with to ensure that best practice around equality, diversity and inclusion are followed.

WORKFORCE ENGAGEMENT

Workforce engagement continues with Dovercourt crews as a high profile key station.

LEGAL IMPLICATIONS

None specifically associated with this paper.

HEALTH AND SAFETY IMPLICATIONS

None specifically associated with this paper.

Appendix 1

Key figures about the people and households in Harwich Built-up area in East.

Note, that the station ground of Dovercourt also encompasses the surrounding wards/parishes to this area.

Figures are sourced from the 2011 Census key statistics and obtained from a Local Area Report generated by the Office for National Statistics.

There were 20,723 residents as at Census day 2011.

Population

- 48.7% of the usual residents were males and 51.3% were females.
- The average (mean) age of residents was 42 years and median was 43 years.
- Population density was 37 persons per hectare.
- 59.5% of the usual residents aged 65 and over in households were living in a couple, where the majority were married or in a registered same-sex civil partnership.
- 97.5% of the usual residents declared their ethnic group as 'White'.
- 16,112 (77.7%) usual residents' day-to-day activities were not limited due to health reasons.

Dwellings, household spaces and accommodation type

- Of these 99.2% lived in households and 0.8% lived in communal establishments.
- In total there were 9,603 household spaces.
- 63.2% of all households were one family household, 32.2% were one person households.
- 67.5% of all households were owned, 12.7% were socially rented and 17.9% were privately rented.
- 97.6% of all households had central heating.
- Average household size was 2.3.
- 45.6% of all households had 1 car or van, 26.4% had no cars or van, 22.2% had 2 or more cars or vans.
- There 51 communal establishments, of which 118 were care homes without nursing and 28 were social landlord/housing association.

Economic

- There were 14,668 on census day 2011 that were usual residents aged 16 to 74 of which 66.2% were economically active and 33.8% were economically inactive. 35.5% of this population group were in full time employment, 15.9% were in part time employment and 7.2% were self-employed.
- 8,815 usual residents aged 16 to 74 in employment the week before the census declared the industry that they worked within. 16.8% declared employment in wholesale and retail trade, 14.6% in transport and storage and 13.9% in human health and social work activities.

- The same number of residents also declared their occupation, of which 14.8% reported elementary occupations, 14.2% in caring, leisure and other service occupations, 12.6% in administrative and secretarial occupations.

Experian MOSAIC

Based on the most recent cut off data, Experian has designated household mosaic profiles to 10,825 households that fall within Dovercourt station ground. The table below shows the profile archetypes that were associated with more than 500 households each. The most common profile in Dovercourt Station Ground was 'F24 Bungalow Haven' under the public sector group, 'Senior Security'. The table below shows the key features that are likely to be associated with at least one person that resides within households of this profile, albeit it is noted that there can be anomalies as profiles are formed based on aggregated, historic data.

| Type Label | Number of Households | KF1 | KF2 | KF3 | KF4 | KF5 | KF6 |
|-------------------------|----------------------|-------------------------------|------------------------------------|--|-------------------------------------|----------------------|--------------------------------------|
| F24 Bungalow Haven | 821 | Elderly couples and singles | Own their bungalow outright | Neighbourhoods of elderly people | May research online | Like buying in store | Pre-pay mobiles, low spend |
| G28 Local Focus | 593 | Rural families | Rent or own affordable homes | Skilled trades | Long distance from towns and cities | Shop locally | Online gaming |
| G29 Satellite Settlers | 570 | Mature households | Live in larger villages | Close to transport links | Own pleasant homes | Online groceries | Try to reduce water used in home |
| G27 Outlying Seniors | 561 | Aged 60+ | Low-cost housing | Out of the way locations | Low income | Low income | Dislike being contacted by marketers |
| M54 Economical Families | 558 | Married or cohabiting couples | Likely to have pre-school children | Outgoings high in proportion to income | Own low value homes | Both parents working | Unsecured personal loans |