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## Lancashire Combined Fire Authority

#### Resources Committee

Wednesday, 30 November 2022 in Main Conference Room, Service Headquarters, Fulwood commencing at 10.00 am.

If you have any queries regarding the agenda papers or require any further information, please initially contact Diane Brooks on telephone number Preston (01772) 866720 and she will be pleased to assist.

AGENDA	
PART 1 (open to press and public)	

<u>Chairman's Announcement – Openness of Local Government Bodies Regulations 2014</u> Any persons present at the meeting may photograph, film or record the proceedings, during the public part of the agenda. Any member of the press and public who objects to being photographed, filmed or recorded should let it be known to the Chairman who will then instruct that those persons are not photographed, filmed or recorded.

1.	APOLOGIES FOR ABSENCE
2.	DISCLOSURE OF PECUNIARY AND NON-PECUNIARY INTERESTS Members are asked to consider any pecuniary and non-pecuniary interests they may have to disclose to the meeting in relation to matters under consideration on the agenda.
3.	MINUTES OF THE PREVIOUS MEETING (Pages 1 - 14)
5.	
4.	FINANCIAL MONITORING (Pages 15 - 22)
5.	TREASURY MANAGEMENT MID-YEAR REPORT 2022/23 (Pages 23 - 28)
6.	SUB-SURFACE RESCUES USING REMOTELY OPERATED VEHICLES (Pages 29 - 36)
7.	DATE AND TIME OF NEXT MEETING The next scheduled meeting of the Committee has been agreed for 10:00 hours on <u>29 March 2023</u> in the Main Conference Room, at Lancashire Fire & Rescue Service Headquarters, Fulwood.
	Further meetings are: scheduled for 10 July 2023 and 27 September 2023 proposed for 29 November 2023

8.	URGENT BUSINESS
	An item of business may only be considered under this heading where, by reason of special circumstances to be recorded in the Minutes, the Chairman of the meeting is of the opinion that the item should be considered as a matter of urgency. Wherever possible, the Clerk should be given advance warning of any Member's intention to raise a matter under this heading.
9.	EXCLUSION OF PRESS AND PUBLIC
	The Committee is asked to consider whether, under Section 100A(4) of the Local Government Act 1972, they consider that the public should be excluded from the meeting during consideration of the following items of business on the grounds that there would be a likely disclosure of exempt information as defined in the appropriate paragraph of Part 1 of Schedule 12A to the Local Government Act 1972, indicated under the heading to the item.
PART 2	2
10.	PENSIONS UPDATE (STANDING ITEM) (Pages 37 - 42) (Paragraphs 4 and 5)
11.	REQUEST FOR EXTENSION OF PAID SICK LEAVE (Pages 43 - 46) (Paragraphs 1 and 2)
12.	HIGH VALUE PROCUREMENT PROJECTS (Pages 47 - 56) (Paragraph 3)
13.	URGENT BUSINESS (PART 2)
	An item of business may only be considered under this heading where, by reason of special circumstances to be recorded in the Minutes, the Chairman of the meeting is of the opinion that the item should be considered as a matter of urgency. Wherever possible, the Clerk should be given advance warning of any Member's intention to raise a matter under this heading.

## Agenda Item 3

## Lancashire Combined Fire Authority

#### Resources Committee

# Wednesday, 28 September 2022, at 10.00 am in the Main Conference Room, Service Headquarters, Fulwood.

#### <u>MINUTES</u>

PRESENT:	
<u>Councillors</u>	
T Williams (Chair)	
D O'Toole (Vice-Chair)	
J Mein	
M Pattison	
S Rigby	
A Sutcliffe	
R Woollam	
B Yates	

#### **Officers**

J Charters, Assistant Chief Fire Officer (LFRS) K Mattinson, Director of Corporate Services (LFRS) E Sandiford, Head of Human Resources (LFRS) M Nolan, Clerk and Monitoring Officer to the Authority D Brooks, Principal Member Services Officer (LFRS) L Barr, Member Services Officer (LFRS)

15/22	APOLOGIES FOR ABSENCE
	In the absence of the Chair at the start of the meeting, the Vice-Chair, County Councillor O'Toole took the chair.
	Apologies were received from County Councillor Beavers and County Councillor Serridge.
16/22	DISCLOSURE OF PECUNIARY AND NON-PECUNIARY INTERESTS
	None received.
17/22	MINUTES OF THE PREVIOUS MEETING
	<u>RESOLVED</u> : - That the Minutes of the last meeting held on 6 July 2022 be confirmed as a correct record and signed by the Chair.

18/22	EQUALITY, DIVERSITY AND INCLUSION ANNUAL REPORT
	The Head of Human Resources presented the report. As a public body there was a requirement to publish information which demonstrated compliance with the Equality Duty created under the Equality Act 2010. In the exercise of functions there was a requirement to: i) eliminate unlawful discrimination, harassment and victimisation and other conduct prohibited by the Act; ii) advance equality of opportunity between people who shared a protected characteristic and those who did not; and iii) foster good relations between people who shared a protected characteristic and those who did not.
	Regulations, enabled by the Equality Act required public authorities to publish their equality objectives and information to demonstrate their compliance with the Equality Duty. The Annual Equality, Diversity and Inclusion report was one of the ways in which the Service demonstrated this compliance.
	Members considered the report (attached at appendix 1 now presented) which demonstrated performance in terms of meeting legal duties for the period 2021/22 and setting out plans for 2022/23. It was noted that this was part of a suite of delivery plans that supported the delivery of the People Strategy (which detailed areas of focus in terms of improved accessibility, training and development, recruitment and selection, engagement, consultation, performance management and in the development of policies and strategies).
	As an employer the aim was to recruit and develop a diverse workforce and to ensure that the workforce could work with dignity and respect, protected from any type of prejudice or discrimination.
	Further to the review of risks within the communities of Lancashire, the Service had developed the following equality objectives in supporting:
	<ul> <li><u>Our communities:</u></li> <li>Support local businesses to reduce the risk of fire and remain compliant within fire safety legislation;</li> <li>Reduce the number and impact of fire and other emergencies to our diverse communities across Lancashire;</li> <li>Develop and deliver a Prevention service targeting our most vulnerable communities.</li> </ul>
	<ul> <li><u>Our workforce:</u></li> <li>Promote equality in our workforce policies and workforce practices;</li> <li>Develop our staff to ensure they can respond competently meeting the different needs of our diverse communities.</li> </ul>
	The Service aimed to ensure that no one received less favourable treatment for reasons relating to all recognised protected characteristics covered by the Equality Act.
	Equality Impact Assessment (EIA) was an effective tool in demonstrating how the Service met its legal requirements under the public sector equality duty, identifying the impact of policies and decisions on staff and communities and

ensuring that the impact was fully understood and any negative impact mitigated. The Service had strengthened its approach to EIAs through training having delivered 6 courses during the period. It was noted that a peer review would be commissioned during 2022/23 to review current arrangements with a view to identifying improvements. The Service ensured that any partnership operated in line with equality principles and associated equality duties.

#### Workforce Profile

Members considered annex A to the report which demonstrated the workforce equality profile as of 31 March 2022 in relation to all protected groups (apart from gender reassignment due to the sensitive confidential nature of the data). Information was provided across: i) workforce demographics for the Service; ii) prevention and protection (community fire safety green book staff, fire safety grey book staff and Prince's Trust green book staff); iii) response grey book operational staff (wholetime and on-call); iv) female firefighter operational staff; v) business support green book staff; vi) support staff grey book; vii) turnover; and viii) age profile. Annex B to the report provided an analysis of recruitment and included grey book gender split promotions by rank during the period. Annex C detailed disciplinary, grievance and harassment and bullying cases during the period.

Monitoring equality and diversity in the workforce enabled the Service to identify how employment policies were working and to identify areas where these may appear to be working disproportionately on certain groups of staff. It was noted that with effect from 2022, the Service reported on its workforce as part of its performance reporting arrangements. The Service operational Emergency Cover Review included an assessment of relevant data which allowed the Service to assess risk and focus its resources in those areas of highest need.

Detail of progress in relation to EDI was summarised in the completed action plan for 2021-22 as set out in annex D with the new Action Plan for 2022-23 considered at annex E.

Members noted other areas of focus related to equality, diversity and inclusion set out in section 7 of the report (from page 25 of the agenda pack) were: -

#### Accessibility

Information was made available in a variety of formats using multiple channels to best reach Lancashire's diverse communities. Equality and diversity values were promoted in key publications and information sources internally and externally. Information was provided in printed form and via digital channels including the website. The website met web content accessibility guidelines and work was ongoing towards compliance with public sector bodies (websites and mobile applications) accessibility regulations 2018 and achieving Web Content Accessibility Guidelines 2.1 level AA standard. Key messages were targeted at those who were most at risk. Positive action campaigns were undertaken when recruiting to encourage women and under-represented groups to apply. National campaigns and special events were supported (such as: Pride Month, I'm not a Muslim but I will Fast for One Day and International Women's Day). Information was also available in alternative formats (large print, additional languages on request and videos were produced with subtitles). Measures from the British Dyslexia Association's style guide were also applied to both internal and external material.

#### Training and Development

The Service had a proactive approach to training and development in relation to equality, diversity and inclusion. The Service prioritised the development of a strong organisational culture where its values were understood, receiving 'outstanding' in its 2021/22 inspection by HMICFRS. In addition to its STRIVE values, the Service had adopted the Code of Ethics for Fire and Rescue Services developed by the National Fire Chiefs Council and the Local Government Association. The Deputy Chief Fire Officer had been confirmed as the senior officer responsible for the Code of Ethics and development sessions had been delivered to staff. In addition, the Service had developed a talent management approach to identify those with potential ensuring that individuals were developed and available with the right skills and competencies to meet the needs of vacancies within the Service.

#### Recruitment and Selection

The Service continued its journey to improve the diversity of its workforce to ensure that it represented the community it served. During 2021 the Service delivered a range of positive action initiatives aimed at recruiting a diverse group of candidates who met the standards required in terms of fitness, behaviours and competencies to fill the wholetime apprenticeship course. The specific aim of the positive action was to promote the Service as an employer of choice to the black and minority ethnic community, women and people from the LGBTQ+ community.

Recruitment initiatives were supported by representatives from the Service's employee voice groups and from the previous apprenticeship cohorts. Details of the reach of the social media campaign and events held were included in the report. A total of 359 people attended across the recruitment events, of which 11% were BME, 17% were female and 15% were from the LGBTQ+ community with the remaining 57% identified as white males. Of the 359 attendees, 30 went onto apply for a wholetime apprenticeship firefighter vacancy amongst a total of 748 applicants. 19 were female, 5 from LGBTQ+ community and 5 identified as BME. Applications opened on 1 November 2021 and closed on 10 November 2021. Of those who applied the demographic profile was: Male 88%, Female 11%, BME 6%, LGBTQ+ 10% and Disabled 4%.

The demographic profile of the first cohort in May was: Male 88%, Female 12%, BME 3%, LGBTQ+ 18% and Disabled 0%.

The demographic profile of the second cohort in September for candidates invited to join was: Male 83%, Female 17%, BME 3%, LGBTQ+ 14% and Disabled 5.5%.

Recruitment to the role of wholetime apprentice firefighter was competitive and the Service continued to recruit using a fair, open and transparent recruitment process, appointing only those who performed the best. Recruitment to wholetime apprentice firefighter was in addition to the other 129 recruitment episodes associated with grey and green book staff during the period. It was

noted that during 2022 there had been an opportunity to commence reengagement with communities on a face-to-face basis.

#### Workforce Strategies and Policies

The Service ensured its employment policies were Equality Impact Assessed to ensure that equality was considered transparently in the development and implementation of its policies. The Service monitored the composition of its workforce. It looked to promote equality of opportunity in recruitment, selection, pay, promotion, training, grievance and exit from employment. There were a number of policies which supported employees with protected characteristics including: bullying and harassment, maternity, shared parental leave, grievance policy and the EDI policy. During 2022, the harassment and bullying policy was updated to ensure that it more clearly identified the types of discrimination that those from the LGBTQ+ community might face. The maternity, paternity and adoption provisions had been improved. Due to the pandemic the Service had to work flexibly and a new flexible working policy incorporating hybrid working had been implemented. The Code of Conduct had been updated incorporating the Code of Ethics and was currently subject to consultation with Trade Unions. The Service was exploring how it could support members of staff who were neurodivergent and a new policy had been developed explaining neurodiversity and the support available.

#### Engagement and Consultation

The Service engaged with staff in a range of different ways. The Staff Survey had become an effective way of receiving feedback from staff and, further to that feedback, Heads of Departments used the information received to inform the development of local policies and communication. Employee Voice Groups were a useful mechanism for consulting with staff and receiving feedback from staff of under-represented groups. A new group to support members of staff who were neurodivergent had been established.

The Engine House was successful and the "Shout Up" section allowed for staff to discuss and share their views on a range of topics. Teams meetings and visits to stations were utilised to receive feedback from staff.

An Emergency Cover Review was progressing for 2022/2023. A comprehensive communication and staff engagement plan and robust equality impact assessment process was being undertaken to ensure that members of staff were fully consulted and the implications from an equality perspective were fully understood.

Consultation with the Trade Unions took place through formal and informal consultation meetings, the Service now recognised the Fire and Rescue Service Association (FRSA) and the Fire Officers Association (FOA) for the purposes of collective bargaining. Workforce and employment-related decisions and documents were reviewed with trade union representatives and other members of staff from within LFRS.

#### Performance Management

The Annual Service Plan detailed the activities undertaken in year to deliver the strategy set out in the Community Risk Management Plan. All staff had a

performance appraisal where objectives were set which supported the delivery of plans and feedback was given on performance in relation to our values. Within the appraisal was the opportunity to have a career conversation, a useful tool to inform workforce planning. During 2021, briefings to staff were delivered to ensure the promotion pathways available to staff were fully understood ensuring that talent was identified and nurtured.

#### Bullying and Harassment

The Service had a bullying and harassment procedure for dealing with employee complaints in relation to concerns relating to bullying, or behaviour. Further to complaints, issues were fully investigated in accordance with the bullying and harassment procedure, or the disciplinary procedure depending on the clarity of the information available.

#### Issues of concern for employees

The Service also had a grievance procedure which was the main procedure used for dealing with other employee concerns in relation to a broader range of issues other than misconduct. The Service promoted the principle of encouraging employees to voice their concerns informally, encouraging line managers to "nip issues in the bud" and then adopt a more formal approach where issues remained unresolved, which had worked successfully. This approach was supplemented by station visits by Senior Managers and a cross checking of matters being raised across the Service to identify any underlying themes of concern.

The Service had reviewed its existing arrangements with a view to checking if these mechanisms were successful and the benefits of establishing formal arrangements for reporting informal issues was considered. The review concluded that it could damage the principle of dealing with issues informally. In addition, further to a recent review of the Capability Procedure, Trade Union representatives advised addressing issues informally and not recording them was of benefit in terms of encouraging employees and line managers to engage in informal feedback and learning to improve. Currently it was proposed that the existing arrangements for recording grievances/issues of concern would remain the same subject to further feedback from members of staff.

#### Gender Pay Gap

The Service was required, under the Equality Act 2010 (Gender Pay Gap Information) Regulations 2017, to publish an annual Gender Pay Gap (GPG) report. The Act required that organisations with 250 or more employees to report on their GPG using a snapshot date of 31 March 2022. This information was required to be published on the LFRS and Government websites and measured the difference between hourly earnings of men and women. It did not show differences in pay for comparable jobs. Unequal pay for men and women was illegal. The GPG compared hourly rates of pay and any bonuses staff may receive by gender, highlighting any areas of imbalance. The causes of the GPG were complex and overlapping. A higher proportion of women chose occupations that offered less financial reward, for example in administration. Many sectors were disproportionately made up of male workers and a much higher proportion of women worked part-time and part-time workers earned less than their full-time counterparts on average. According to the Office for National Statistics (ONS) the Gender Pay Gap (GPG) nationally had been declining slowly over time and over the last decade it had fallen by approximately a quarter. ONS data showed the UK average Gender Pay Gap continuing a downward trend, with the GPG among all employees in April 2021 being 15.4% from 14.9% in 2020, but still down from 17.4% in 2019.

On the snapshot date, 31 March 2022, LFRS employed 1139 members of staff. A significantly higher proportion of men than women were employed in the Service. The Service had a far larger volume of operational roles and currently those roles were more commonly occupied by men. Women made up the larger proportion of staff in Support roles.

The mean (average) Gender Pay Gap was calculated by adding together the hourly pay rates of all female employees and dividing by the total number of females to create a mean (average). This calculation was repeated for men and the difference in the two figures identified the Gender Pay Gap. Using this calculation methodology across LFRS, the mean Gender Pay Gap was significantly different than the national average at -12.65%. This positive difference meant that women on average earned £1.54 per hour more than men.

The inclusion of On-Call and dual contracted staff in the calculation significantly skewed the mean pay gap, due to the method of calculation and the payment arrangements for these groups. On-Call staff received an enhanced retaining fee for providing hours of operational cover, in addition to receiving the standard turnouts, attendances and drill fees as prescribed by the national conditions of service.

To calculate the median Gender Pay Gap all employees were ranked by their hourly pay. A comparison was undertaken to establish what a female, in the middle of the female pay range, received and what a male, in the middle of the male pay range, received. The difference between these figures was the median pay gap. The median Gender Pay Gap at LFRS equated to 9.27%. This meant that males earned £1.35 positive difference per hour than females. A chart in the report gave an indication of how males and females were distributed across the Service and the salary quartile banding. The pay quartiles were created by ranking each employee in order, from lowest earning (lower quartile) to highest earning (upper) quartile.

There was a high proportion of male employees employed on the National Joint Council (NJC) for Local Authority Fire and Rescue Service terms and conditions (known commonly as the 'Grey Book'), which attracted additional allowances that were not available to staff conditioned to the NJC for Local Government Service ('Green Book') support staff, the majority of which were female. These additional allowances increased Grey Book average earnings and moved this staff group to the lower middle quartile, as demonstrated in a table in the report.

Through an analysis of the quartile distribution by occupational group it was evident that all the employees in the lower quartile were On-Call staff. This group of staff equated to 25% of the employee population, 24% of which were male.

	Most female part time support staff were found in the lower-middle quartile, with fewer in the upper middle and upper quartiles. This could be reflective of the family friendly nature of LFRS policies, whereby staff were afforded benefits such as agile working, flexible working and part time working to fit around family commitments.
	The proportion of females in the upper-middle and upper quartile was reasonably reflective of the overall proportion of females within LFRS. The upper-middle quartile was predominantly male, but this was where most staff undertaking the role of Firefighter could be found. A high proportion of males undertake the role of Firefighter, so it was therefore unsurprising that this quartile was male dominated.
	It was recognised that women were significantly under-represented in the operational workforce and consequently LFRS was committed to increasing the number of female firefighters. This formed an important part of LFRS's approach to EDI within the Service. LFRS was undertaking positive action initiatives aimed at encouraging people from under-represented groups to apply for positions in the organisation. Recruitment activity was locally monitored (including the levels of attraction and appointment) to identify problem areas to drive forward improvements.
	In response to County Councillor O'Toole's view that people doing the same job should have the same pay, the Head of Human Resources confirmed that people who carried out the same or similar jobs of equal value were paid the same. She advised that for green book support staff roles a job evaluation scheme was in place.
	County Councillor Sutcliffe queried whether the diverse work of the Service enabled better opportunities for under-represented groups. The Head of Human Resources confirmed that career paths were addressed at educational roadshows and included those in support departments (ie: prevention, technical, policy development etc).
	In response to a question raised by County Councillor S Rigby regarding any Member involvement in the grievance appeals process, the Head of Human Resources confirmed that staff would discuss any issues with their line manager in the first instance and if not satisfied then with the line manager's manager; the Service's Grievance Procedure did not include the involvement of Members.
	RESOLVED: - That the Committee noted the report.
19/22	FINANCIAL MONITORING
	Councillor Williams apologised for being late and he now took the chair.
	The Director of Corporate Services advised that this report set out the current budget position in respect of the 2022/23 revenue and capital budgets.

Revenue Budget

The overall position at the end of August was an overspend of £0.3m, largely as a result of price increases associated with energy and fuel.

The year-to-date positions within individual departments were set out in the report with major variances relating to non-pay spends and variances on the pay budget being shown separately in the table below: -

Area	Overspend/	Reason
	(Under spend)	
	£'000	
Fleet & Technical services	104	The increase in fuel prices was reflected in the overspend to date. The budget allowed for 12.5% increase in fuel costs, but the actual increase was significantly higher than this, approx. 50%, which equated to approx. £125k. In terms of usage, it was too early to base any year end forecast on this, but the situation would continue to be monitored. In addition, repairs costs had increased reflecting works needed in the first quarter of the year and the increase in costs due to inflationary pressures.
Information	84	The overspend to date was attributable to a
Technology		combination of the timing of expenditure, with software licenses being paid up front, and a general increase in costs, again reflecting inflationary pressures.
Property	190	The increase in energy prices was reflected in the overspend to date. The budget allowed for 25% increase in fuel costs, but the actual increase was significantly higher than this, approx. 100%, which equated to approx. £300k. In terms of usage, it was too early to base any year end forecast on this, but the situation would continue to be monitored. In addition, an increase had been seen in maintenance costs aligned with inflationary pressures, which would potentially lead to further overspend in year but again it was too early to predict that at the present time.
Wholetime Pay	(73)	The majority of the underspend was attributable to the slight shortfall in recruit numbers at the start of the year. Retirements and leavers were broadly in line with forecast.
On Call Pay	34	This was broadly in line with budget.
Support staff (less agency	60	The budget was adjusted to take account of the increased level of vacant support posts within the Service. Whilst a number of posts
staff)		remained vacant, agency staff were being

		utilised to fill some of these, resulting in an overspend to date, however it was anticipated that this would slow down in the second half of the year as recruiting to posts was anticipated therefore, reducing the reliance on agency staff.
Apprentice Levy	(16)	The apprentice levy was payable at 0.5% of each month's payroll costs with expenditure slightly less than budgeted.

The report highlighted that inflationary pressures were causing costs to increase in several areas, most notably fuel and energy. Forecast usage/costs were currently being reviewed in order to estimate the likely out-turn position. However far more significant than this was the potential costs associated with pay awards. The budget allowed for 2% pay awards for both grey and green book personnel. The current pay offer for green book personnel approximated to 5% and whilst the existing pay offer for grey book personnel was one of 2% it appeared unlikely that this would be accepted (with the FBU having announced they intended to ballot members on this). As such it was clear that the existing budgetary provision would be insufficient to meet in year pay increases. In order to provide indicative figures, if the overall pay budget increased by 5% (in line with the current green book offer) as opposed to the 2% budget there would be a shortfall in excess of £1m.

It would not be possible to identify in-year savings to offset this and utilising reserves would therefore be needed. The Authority currently held £6.0m of general reserves, having agreed a minimum level of £4.0m, and as such was able to utilise £2.0m of this to offset any in year pressures, although clearly this was a short-term measure only.

Anticipated spend would be reviewed in order to identify a year end forecast for reporting to the November Resources Committee.

#### Capital Budget

The capital budget currently stood at £9.0m, after allowing for the year end slippage agreed at the previous Committee meeting. Spend to date was just £0.5m. The latest year end forecasts for the various capital projects had been reviewed, and an in-year spend of £3.3m was currently anticipated. This would lead to slippage of £5.7m, a very significant number but one which, for the main part, was attributable to market conditions.

The following table shows spend to date as well as the anticipated year end position:

	Spend to 30 August	Year End Forecast	
	£m	£m	
Operational vehicles	-	0.9	The budget allowed for the replacement of various operational vehicles. 13 pumping appliances had already been ordered (7 this

			year and 6 next year), 2 Command Units and an ALP. Having reviewed lead times, and staged payment dates, the current anticipated year end spend was approximately £0.9m, resulting in slippage of £2.2m. This would be kept under review, and would be subject to change due to the current difficulty in obtaining raw materials etc.
Support vehicles	0.1	0.4	This budget allowed for the replacement of various operational support vehicles, whilst some of these had already been delivered, the shortage of raw materials was affecting both the timeframe for delivery and the cost of vehicles. Latest predictions indicated that approx. 50% of the programme would be completed in year, at a cost of £0.4m, with the balance sipping into 2023/24.
Operational Equipment	0.1	0.3	A £0.3m spend was anticipated from piloting CCTV on a number of pumping appliances and the replacement of light portable pumps. However, it appeared unlikely that any in year expenditure would be incurred in respect of the replacement of cutting and extrication equipment where the project was in the early stages and where costs may change depending on the type of equipment purchased and whether this was a whole scale replacement or not. It was therefore anticipated this budget would slip (£1.5m into next year)
Building Modifications	0.3	0.8	<ul> <li>This budget allowed for:</li> <li>The replacement of 4 drill towers, where one tower, Blackpool, was completed in June, and where contracts had now been let for a further 2 towers, Tarleton and Bolton Le Sands, both of which would be completed by the end of the year.</li> <li>Enhanced facilities at Hyndburn fire station, where</li> </ul>

Π s	ystems	-	0.9	current financial year.The majority of the capital budgetrelated to the national EmergencyServices Mobile CommunicationsProject (ESMCP), to replace the
				Airwave wide area radio system and the replacement of the station end mobilising system. The ESMCP project budget, £1.0m, was offset anticipated grant, however the timing of both expenditure and gra- was dependent upon progress against the national project. This national project had suffered length delays to date, hence was included within slippage into the next finance year. The balance of the budget related the replacement of various system and ICT hardware, in line with the ICT asset management plan. While no costs had been incurred in the year so far, it was highlighted that contracts had been awarded or we in the process of being awarded for several of the systems, with an anticipated year end spend of £1.0m. The balance of the budget, £0.5m, related to systems/replacements which were likely to slip into 2023/24.
Tota		0.5	3.3	

In response to a question raised by County Councillor S Rigby the Director of Corporate Services advised that there was some flexibility with Revenue

	Contributions to Capital Outlay. He added that any budget decisions would be made at year end, bearing in mind rising costs and the scale of the pay award.
	In response to a further question regarding energy conservation measures across Service premises, the Director of Corporate Services advised that the Authority had agreed a Carbon Management Plan (which looked at reducing and controlling these costs) and new buildings needed to comply with BREEAM technical standards. The challenge was refurbishing some of the older building stock including Service Headquarters. He advised that within the capital building programme was a budget for the relocation of Service Headquarters however, this was a very large project that would need to be reviewed in light of rising costs. Efficiency measures taken included energy efficient heating, light sensors, low water usage taps etc.
	<u>RESOLVED</u> : - That the Committee: i) Noted and endorsed the financial position; and ii) Approved slippage of £5.7m into 2023/24
20/22	DATE AND TIME OF NEXT MEETING
	The next meeting of the Committee would be held on <u>30 November 2022</u> at 10:00 hours in the Main Conference Room at Lancashire Fire and Rescue Service Headquarters, Fulwood.
	Further meeting dates were noted for 29 March 2023 and 10 July 2023 and agreed for 27 September 2023.
21/22	EXCLUSION OF PRESS AND PUBLIC
	<u>RESOLVED</u> : - That the press and members of the public be excluded from the meeting during consideration of the following items of business on the grounds that there would be a likely disclosure of exempt information as defined in the appropriate paragraph of Part 1 of Schedule 12A to the Local Government Act 1972, indicated under the heading to the item.
22/22	PENSIONS UPDATE (STANDING ITEM)
	(Paragraphs 4 and 5)
	Members considered an update report on the current position regarding pension schemes that applied to the uniformed members of the Fire Sector.
	RESOLVED: - That the ongoing situation be noted.
23/22	IDRP - STAGE 2
	(Paragraphs 1, 4 and 5)
	County Councillor Mein joined the meeting.
	Members considered a report regarding an IDRP Stage 2 application under the

	Internal Disputes Resolution Procedure. The report outlined the facts of the case.
	RESOLVED: - That the Committee declined the application presented.
24/22	HIGH VALUE PROCUREMENT PROJECTS
	(Paragraph 3)
	Members considered a report that provided an update on all contracts for one-off purchases valued in excess of £100,000 and high value procurement projects in excess of £100,000 including: new contract awards, progress of ongoing projects and details of new projects.
	RESOLVED: That the Committee noted and endorsed the report.
25/22	URGENT BUSINESS (PART 2) - EXTENSION OF PAID SICK LEAVE
	(Paragraph 1)
	Members received a report tabled under urgent business regarding the circumstances relating to a request for an extension of sick pay.
	<u>RESOLVED</u> : - That the Committee approved not to agree the request for the extension of half sick pay to full sick pay on the grounds that there were no exceptional circumstances.
26/22	EXECUTIVE BOARD SUCCESSION ARRANGEMENTS
	(Paragraph 1)
	Only Members and relevant Officers were present for this item.
	<u>RESOLVED</u> : - That the Committee approved the recommendation outlined in the report.

M NOLAN Clerk to CFA

LFRS HQ <u>Fulwood</u>

## Lancashire Combined Fire Authority Resources Committee

Meeting to be held on 30 November 2022

#### Financial Monitoring 2022/23 (Appendices 1 and 2 refer)

Contact for further information: Keith Mattinson - Director of Corporate Services Tel: 01772 866804

 Table 1 Executive Summary and Recommendations

#### Executive Summary

The report sets out the current budget position in respect of the 2022/23 revenue and capital budgets.

#### Recommendation

The Committee are requested to

- note and endorse the current financial position
- note the anticipated year end forecast overspend of between £1.0m and £1.5m.

#### **Revenue Budget**

The overall position at the end of September is an overspend of £0.5m, largely as a result of price increases associated with energy, fuel and property maintenance costs.

The year-to-date positions within individual departments are set out in Appendix 1, with major variances relating to non-pay spends and variances on the pay budget being shown separately in the table below: -

Area	Overspend/ (Under spend)	Reason
	£'000	
Fleet & Technical Services	147	The increase in fuel prices is reflected in the overspend to date. The budget allowed for 12.5% increase in fuel costs, but the actual increase is significantly higher than this, approx. 50%, which equates to approx. £125k. In addition usage is higher this year than in previous years, reflecting increased activity post pandemic. This gives an overall overspend to date of £75k. In addition repair costs have increased reflecting works needed in the first quarter of the year and the increase in costs due to inflationary pressures, currently standing at £75k overspent. Both these areas will remain overspent throughout the reminder of the year, with the latest estimates showing a year end forecast overspend of approx. £275k.

Table 2 Details of current budget position by department

Information	71	The overspond to date is attributable to a combination of
Technology		The overspend to date is attributable to a combination of the timing of expenditure, with software licenses being paid up front, and a general increase in costs, again reflecting inflationary pressures. This situation is likely to remain throughout the remainder of the year, with a current year end forecast overspend of £100k.
Property	242	The increase in energy prices is reflected in the overspend to date. The budget allowed for 25% increase in fuel costs, but the actual increase is significantly higher than this, approx. 100% in the first half of the year, giving a current overspend of £130k. However price increases in the second half of the year have again increased significantly, with our current forecast showing an increase of approx. 200%. As such we will see a very significant increase in the overspend in the second half of the year and are currently forecasting a year end overspend of approx. $\pm 700$ k, although it is not clear what impact the Government energy cap will have on this. In addition we have 'front loaded' our in-year maintenance programme, and this coupled with increases in maintenance costs aligned with inflationary pressures, has led to a current overspend of $\pm 100$ k. As a result of the increase in costs and on-going maintenance requirements this is another area that is looking at a year-end overspend, currently forecast at $\pm 150$ k.
Wholetime Pay	15	This is broadly in line with budget, retirements and leavers are broadly in line with forecast, with a slight shortfall in recruit number been offset by increased overtime. Whilst this is broadly in line at the present time, we have not built any allowance in for the final pay award exceeding the 2% budgeted allowance. Based on the existing 5% allowance, this will see an overspend of approx. £750k
On Call Pay	12	This is broadly in line with budget. Whilst this is broadly in line at the present time, we have not built any allowance in for the final pay award exceeding the 2% budgeted allowance. Based on the existing 5% allowance, this will see an overspend of approx. £125k
Support staff (less agency staff)	50	The budget was adjusted to take account of the increased level of vacant support post within the Service. Whilst a number of posts remain vacant, we have utilised agency staff to support some key technical roles within the organisation, resulting in an overspend to date. This will slow down in the second half of the year as we recruit into vacant posts reducing the reliance on agency staff. The current position does not allow for the green book pay award, which has now been agreed at £1,925 per full time equivalent. This is significantly higher than the budgeted allowance of 2% and will increase costs over

		and above budget by approx. £250k by the end of the year.
Apprentice Levy	(20)	The apprentice levy is payable at 0.5% of each month's payroll costs. As can be seen expenditure is slightly less than budgeted.

As highlighted above inflationary pressures are causing costs to increase in several areas, most notably fuel, energy and property costs, approx. £1m of additional pressures. However, more significant than this is the potential costs associated with pay awards, approx. £1.1m more than budgeted. This is partly offset by increased returns on investments, where we currently anticipate generating a surplus of £0.5m. We are continuing to review other areas for delivering savings, however it is clear that we will be faced with a very significant overspend at year end, of between £1.0m and £1.5m.

As such we will need to utilise reserves to offset this. We currently hold £6.0m of general reserves, having agreed a minimum level of £4.0m, and as such are able to utilise £2.0m of this to offset any in year pressures, although clearly this is a short-term measure only.

It is worth highlighting that utilising reserves in this manner will also limit our ability to offset financial pressures in 2023/24 and future years.

#### Capital Budget

Following the slippage agreed at the last Resources Committee the capital budget now stands at £3.3m. Spend to date is just £0.6m.as set out below, with further details in Appendix 2: -

	Spend to 30 Septem ber £m	Year End Forecast £m	
Operational vehicles	-	0.9	As reported previously whilst we have ordered a significant number of operational vehicle (13 pumping appliances, 2 Command Units and an ALP) lead times are such that we have not incurred any expenditure in the year to date and are only likely to incur £0.69m by the tear end (reflecting agreed staged payments).
Support vehicles	0.1	0.4	This budget allows for the replacement of various operational support vehicles, whilst some of these have already been delivered, the shortage of raw materials is affecting both the timeframe for delivery and the cost of vehicles. Latest predictions indicate that approx. 50% of the original programme will be completed in year, at a cost of £0.4m.
Operational Equipment	0.1	0.3	Spend to date is attributable to the replacement of light portable pumps. We anticipate spending an additional £0.2m on CCTV for pumping appliances in-year.

#### Table 3 Details of current and forecast capital spend during the year by spend category

Building Modifications	0.3	0.8	<ul> <li>Spend to date is associated with:-</li> <li>Enhanced facilities at Hyndburn fire stations, where works have commenced and will be completed by October, with costs to date standing at £0.1m</li> <li>The replacement of drill towers, where one tower, Blackpool, was completed in June, and where work on replacing two towers, Tarleton and Bolton le Sands, was underway (both were completed and handed over in November), with costs to date of £0.2m.</li> </ul>
IT systems	-	0.9	Approx 50% of the budget relates to the replacement of Vehicle Mounted Data Systems (VMDS) on appliances, where an order has been replaced but no costs have been incurred at the end of September. The balance of the budget relates to the replacement of various systems and ICT hardware, in line with the ICT asset management plan. Whilst no costs have been incurred in the year so far, it is worth highlighting that we have awarded contracts for several of the systems.
Total	0.6	3.3	

The costs to date will be met by revenue contributions.

It is still worth highlighting that we continue to see significant cost increases across various supply chains, and in particular in construction projects and this will affect some of the capital projects as they progress through the procurement stage.

#### **Business Risk**

None

#### **Environmental Impact**

None.

#### **Equality and Diversity Implications**

None.

#### **HR Implications**

None.

#### **Financial Implications**

As set out in the report.

#### Local Government (Access to Information) Act 1985 List of Background Papers

Paper: Date: Contact: Reason for inclusion in Part 2 if appropriate: N/A

#### Table 4 Revenue Budget Monitoring Statement

BUDGET MONITORING STATEMENT SEPTEMBER 2022	ENT Total Budget	dget Budgeted Spend to Sep 2022	Actual Spend to Sep 2022	Variance O/Spend (U/Spend)	Variance Pay	Variance Non- Pay
	£000	£000	£000	£000	£000	£000
Service Delivery						
Service Delivery	36,062	17,624	17,712	89	138	(49)
Prevention & Protection	2,972	1,515	1,409	(106)	(111)	5
Covid-19	-	-	0	0	-	0
Control	1,346	673	690	17	-	17
Youth Engagement (inc Princes Trust)	52	140	139	(1)	-	(1)
Special Projects (ISAR)	13	6	20	13	-	13
Strategy & Planning						
Service Development	1,552	797	824	28	30	(2)
Training & Operational Review	4,360	2,466	2,385	(81)	(126)	45
Fleet & Technical Services	2,743	1,507	1,632	124	(23)	147
Information Technology	2,855	1,345	1,430	85	14	71
Digital Transformation	537	195	214	19	18	1
People & Development						
Human Resources	880	428	510	82	22	59
Occupational Health Unit	242	115	133	18	12	6
Corporate Communications	341	167	196	28	28	0
Safety Health & Environment	242	118	109	(10)	(2)	(7)
Corporate Services						
Executive Board	1,064	554	570	16	16	(0)
Central Admin Office	866	424	361	(63)	(58)	(4)
Finance	152	75	99	24	24	(0)
Procurement	943	468	527	59	55	3
Property	2,179	1,126	1,377	251	9	242
External Funding	3	(24)	(1)	22	(1)	24
Рау						
TOTAL DFM EXPENDITURE	59,401	29,720	30,337	617	45	571
Non DFM Expenditure						
Pensions Expenditure	1,351	679	630	(49)		(49)
Other Non-DFM Expenditure	2,264	(2,524)	(2,553)	(30)	(7)	(22)
NON-DFM EXPENDITURE	3,615	(1,845)	(1,924)	(79)	(7)	(72)
TOTAL BUDGET	63,017	27,875	28,413	538	38	500

#### Table 5 Capital Budget Monitoring Statement

	Revised	Spend to 30	Year End
CAPITAL BUDGET 2022/23	Prog	September	Outturn
Vehicles			
Operational Vehicles	0.924	-	0.924
Support Vehicles	0.431	0.135	0.431
••	1.355	0.135	1.355
Operational Equipment			
Operational Equipment	0.300	0.142	0.300
	0.300	0.142	0.300
Buildings Modifications			
STC	0.036	0.006	0.036
Enhanced station facilities	0.150	0.102	0.150
Preston Rebuild	-	-	-
Drill tower replacements	0.564	0.221	0.564
	0.750	0.329	0.750
ICT			
IT Systems	0.866	-	0.866
	0.866	-	0.866
Total Capital Requirement	3.271	0.607	3.271
Funding			
Capital Grant	-	-	-
Revenue Contributions	3.271	0.607	3.271
Earmarked Reserves	-	-	-
Capital Reserves	-	-	-
Total Capital Funding	3.271	0.607	3.271

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## Lancashire Combined Fire Authority Resources Committee

Meeting to be held on 30 November 2022

#### Treasury Management Mid-Year Report 2022/23

Contact for further information: Keith Mattinson - Director of Corporate Services – Telephone Number 01772 866804

#### **Executive Summary**

The report sets out the Authority's borrowing and lending activities during 2022/23. Decisions taken were in accordance with the Treasury Management Strategy and were based on anticipated spending and interest rates prevailing at the time.

#### Recommendation

The Resources Committee is asked to note and endorse the report.

#### Information

In accordance with the CIPFA Treasury Management Code of Practice and to strengthen members' oversight of the Authority's treasury management activities, the Resources Committee receives a treasury management mid-year report and a final outturn report. Reports on treasury activity are discussed on a quarterly basis with Lancashire County Council Treasury Management Team and the Authority's Director of Corporate Services and the content of these reports is used as a basis for this report to the Committee.

#### Economic Overview

The economic backdrop during the April to September period continued to be characterised by ongoing high inflation and its impact on consumers' cost of living and the expectation of low growth. There is no imminent end in sight to the Russia-Ukraine hostilities and its associated impact on the supply chain, and China's zero-Covid policy. Subsequently, UK inflation remained extremely high. Annual headline CPI hit 10.1% in July, the highest rate for 40 years, before falling modestly to 9.9% in August. RPI registered 12.3% in both July and August.

To combat inflation the Bank of England increased the official Bank Rate to 2.25% over the period. From 0.75% in March, the Monetary Policy Committee (MPC) pushed through rises of 0.25% in each of the following two MPC meetings, before hiking by 0.50% in August and again in September. Current expectations are that the Bank Rate will continue to rise.

Over the period the 5-year UK benchmark gilt yield rose from 1.41% to 4.40%, the 10-year gilt yield rose from 1.61% to 4.15%, the 20-year yield from 1.82% to 4.13% and the 50-year yield from 1.56% to 3.25%.

The Sterling Overnight Rate (SONIA) averaged 1.22% over the period. SONIA is calculated by the Bank of England based on actual transactions reflects the average of

the interest rates that banks pay to borrow sterling overnight from other financial institutions and other institutional investors.

Period	Bank Rate	3 month money market	12 month money market	20-year Gilt Rate
Q3 2022	2.25	2.25	2.45	4.32
Q4 2022	4.75	4.25	4.45	4.25
Q1 2023	5.00	5.25	5.40	4.25
Q2 2023	5.00	5.25	5.40	4.15
Q3 2023	5.00	5.25	5.40	4.10
Q4 2023	5.00	5.25	5.40	4.00
Q1 2024	5.00	5.25	5.40	3.90
Q2 2024	5.00	5.25	5.40	3.90
Q3 2024	5.00	5.25	5.40	3.80
Q4 2024	4.75	4.75	4.90	3.80
Q1 2025	4.25	4.25	4.40	3.80
Q2 2025	3.25	3.25	3.40	3.80
Q3 2025	3.25	3.25	3.40	3.80

The table below shows the latest forecast for interest rates from Arlingclose:

The inflation pressures facing the UK are being faced by countries throughout the world. In the US inflation hit 9.1% in June, although there was some slight easing in July and August to 8.5% and 8.3% respectively. The Federal Reserve continued its fight against inflation over the period with a 0.5% hike in May followed by three increases of 0.75% in June, July and September, taking policy rates to a range of 3% - 3.25%.

#### Treasury Management position and Policy

The underlying need to borrow for capital purposes is measured by the Capital Financing Requirement (CFR), while usable reserves and working capital are the underlying resources available for investment. The treasury management activity is influenced both by the position at the beginning of the year, as per the table below, and the plans in year:

	Balance 31/3/22
	£m
Capital Finance Requirement	12.770
Less other debt liabilities	(12.770)
Borrowing Requirement	0.000
External borrowing	2.000

The table above shows that the level of loans was above the borrowing requirement. This is the result of the Authority adopting a policy of setting aside additional Minimum Revenue Provision (MRP) in order to generate the cash to repay loans either on maturity or as an early repayment. This has resulted in the CFR being reduced but due to early repayment charges it has not been financially beneficial to repay three loans.

It is not anticipated that the new capital expenditure will be funded from borrowing in the year while it was anticipated that there will be some reduction in the level of reserves held.

#### Borrowing

There has been no new borrowing in the first six months of the financial year. This is consistent with the position that the current borrowing is already above the CFR and that the capital programme does not include any expenditure to be financed from borrowing.

The long term debt outstanding of £2m is from the Public Works Loan Board. The table below show the maturity profile of the Authority's borrowings, along with an interest rate paid.

Loan Amount	Maturity Date	Interest rate
£0.700m	June 2037	4.480%
£0.650m	June 2036	4.490%
£0.650m	December 2035	4.490%

There needs to be consideration for the early repayment of the loans, which however, would be subject to an early repayment (premium) charge. Previous reports on treasury management activities have reported that the premium (approx £0.8m) and the potential loss of investment income have been greater than the savings made on the interest payments therefore it has not been considered financially beneficial to repay the loans especially with the potential for increased interest rates. However, the estimated premium charge to repay the three loans is currently £0.100m; reflecting the significant increase in base rate. To offset the net savings on repaying the loans it is estimated that future interest on investments over the remaining period of the loans would need to be 4.1%.. If it is estimated that investment interest rates will be lower than this then it may be beneficial to repay the loans, however as set out earlier current forecast indicate future base rates in excess of this.

#### Investments

Both the CIPFA Code and the MHCLG Guidance require the Authority to invest its funds prudently, and to have regard to the security and liquidity of its investments before seeking the highest rate of return, or yield. The Authority's objective when investing money is to strike an appropriate balance between risk and return, minimising the risk of incurring losses from defaults and the risk of receiving low investment returns and having the value of reserves eroded by inflation.

The Authority principally invests in a call account provided by Lancashire County Council which pays the base rate. Each working day the balance on the Authority's Current Account is invested in this to ensure that interest is received on surplus balances within an acceptable risk framework. During the period all new investments were placed with the County Council via this arrangement. At 30<sup>th</sup> September there was a balance of £36.055m invested in LCC while the average for the period was £35.187m. The current rate for these investments has increased to 2.25% on 22 September. At the beginning of the financial year the rate was 0.75%.

In addition, in order to increase the rate earned on current balances, the authority have placed fixed investments with other local authorities. To attract a higher rate of interest than is available on the call account these investments will need to be fixed for a longer period of time. During the year the following investments have been in place:

Start date	End date	Principal	rate	Annual	Interest in
		-		interest	2022/23
20/04/2020	20/04/2022	£5m	1.45%	£72,500	£3,973
24/04/2020	25/04/2022	£5m	1.45%	£72,500	£4,966
21/03/2022	21/03/2024	£5m	1.50%	£75,000	£72,500

At 30 September there was £5m fixed term investment in place, therefore the total investment held at 30 September is £41.055m.

The overall rate of interest earned during this period was 1.49% which is favourable when compared with the benchmark 7 day index which averages 1.30% over the same period.

All investments are made in accordance with the current Treasury Management Strategy and the CIPFA treasury management code of practice.

Note two further fixed term investments with other Local Authorities have now been taken out as follows:-

Start date	End date	Principal	rate	Annual interest	Interest in 2022/23
27/10/2022	26/10/2023	£5m	3.30%	£165k	£71k
07/10/2022	06/10/2024	£5m	4.00%	£200k	£96k

Current interest rates available for lending to other Local Authorities are:-

Period	Interest rate	Additional return per annum
		compared with current base
		rate for £5m investment
6 months	3.50%	£62.5K
1 year	4.36%	£105.5k
2 year	4.66%	£120.5k
3 year	4.77%	£126.0k

#### **Prudential Indicators**

In order to control and monitor the Authority's treasury management functions, a number of prudential indicators are determined against which performance may be measured. The indicators for 2022/23 were approved by the Authority on 22 February 2022 are shown in the table below alongside the current actual.

	2022/23 Pls	Actual at 30/9/22
Adoption of the CIPFA Code of Practice for Treasury Management	Adopted	Adopted
Authorised limit for external debt	£m	£m
A prudent estimate of total external debt, which does not reflect the worst case scenario, but allows sufficient headroom for unusual cash movements		
Borrowing	6.000	2.000
Other long-term liabilities	30.000	12.351
Total	36.000	14.351
	2022/23	Actual
	Pls	at 30/9/22
Operational boundary for external debt		
A prudent estimate of debt, but no provision for unusual cash movements. It represents the estimated maximum external debt arising as a consequence of the Authority's current plans		
Borrowing	3.000	2.000
Other long-term liabilities	16.000	12.351
Total	19.000	14.351
Upper limit for fixed interest rate exposure		
Borrowing	100%	100%
Investments	100%	12.2%
Upper limit for variable rate exposure		
Borrowing	25%	0%
Investments	100%	87.8%
Upper limit for total principal sums invested for over 364 days (per maturity date)	25.000	5.000
Maturity structure of loan debt	Upper/ Lower Limits	Actual %
Under 12 months	100% / nil	0%
12 months and within 24 months	50% / nil	0%
24 months and within 5 years	50% / nil	0%
5 years and within 10 years	50% / nil	0%
10 years and above	100% / nil	100%

#### **Revenue Budget Implications**

The 2022/23 revenue budget for treasury management activity showed that anticipated income exceeded expenditure by £200k. Taking into account the activity for the first six months of the year and estimated cash-flow for the remainder of the year the latest forecast is shown below:

	2022/23	2022/23	2022/23
	Budget	Forecast	Variance
	£m	£m	£m
MRP	0.010	0.000	(0.010)
Interest payable	0.090	0.090	(0.000)
Interest receivable	(0.300)	(0.770)	(0.470)
Net budget	(0.200)	(0.680)	(0.480)

The interest receivable is above budget as the balances and interest rates are higher than anticipated when setting the budget. The forecast assumes interest rates on the call account averages 3% for the remainder of the financial year.

#### Financial Implications

Included within report above

#### Human Resource Implications

None

#### Equality and Diversity Implications

None

#### **Business Risk Implications**

The Treasury Management strategy is designed to minimise the Authority's financial risk associated with investment decisions, whilst maximising the return on any investments made. As such the adoption of the CIPFA's Code of Practice on Treasury Management and the monitoring arrangements in place ensure that any risks faced by the Authority are managed.

However, it must be acknowledged that there will always be a balance between risk and return and hence the strategy does not completely eliminate the risk of any further default on investments in the future.

#### Environmental Impact

None

#### Local Government (Access to Information) Act 1985

#### List of background papers

Paper:	Treasury Management Strategy 2022/23
Date:	February 2022
Contact:	Keith Mattinson, Director of Corporate Services

Reason for inclusion in Part 2 if appropriate: N/A

## Lancashire Combined Fire Authority Resources Committee

Meeting to be held on 30 November 2022

#### Subsurface Rescues using Remotely Operated Vehicles

Contact for further information – Steve Healey, Deputy Chief Fire Officer Tel: 01772 866801

#### **Executive Summary**

The Drone Team have been investigating the use of an underwater Remotely Operated Vehicle (ROV) in search and rescue operations. Responding to persons in difficulty in water incidents is a foreseeable risk and therefore suitable training and equipment should be made available for responding crews. The outcomes of a recent pilot of a subsurface ROV are summarised in this report.

#### Recommendation(s)

To seek Member support for the procurement, and future deployment of a high specification Remotely Operated Vehicle (ROV) in support of water rescue operations. Anticipated capital costs of c. £80,000 would be funded from the existing innovation budget and built into the Capital Programme if approved.

#### Background Information

In March 2021, the National Fire Chiefs Council (NFCC) published a position statement entitled "Rescues of submerged casualties" which includes the following text:

"The HSE have indicated that not preparing for a foreseeable risk, including rescues of submerged casualties, is unacceptable. Fire and rescue services may face action if they are found to be exposing their staff to a situation that involves an intervention to save a submerged casualty. Operational discretion is not seen as applicable in circumstances that require actions not supported by legislation, policy and procedure, when there is evidence to support this is foreseeable."

NFCC position: "Unless services are able to address the identified gap in the required resources, equipment, training, and the actions that are required to remain compliant with legislation, when attending an incident involving a casualty that is submerged – All rescues of a submerged casualty should be taken from the land, the surface of the water or by personnel in the water maintaining the correct levels of Personal Protective Equipment (PPE). Rescuers should be competent to risk assess and carry out rescues and should maintain the correct levels of PPE. Operational discretion should not be used to remove PPE, enter confined spaces underwater or act outside of service policy to go underwater.

There may be specific sub-surface situations that can be controlled to allow a rescue attempt. These situations will usually be when the casualty is visible and submerged in shallow water. The NFCC will consider future National Operational Learning cases but

are unlikely to re-evaluate existing guidance unless they include new evidence, alternative safe systems of work or equipment, or other technical solutions that are deemed as a potential improvement in this matter."

#### Lancashire Fire and Rescue Service (LFRS) Response

LFRS has sought to minimise the impact of this necessary operational restriction through investments in Swift Water Rescue Technician (SRT) equipment such as reach poles. This only goes a short way in closing the capability gap that now exists for submerged casualties.

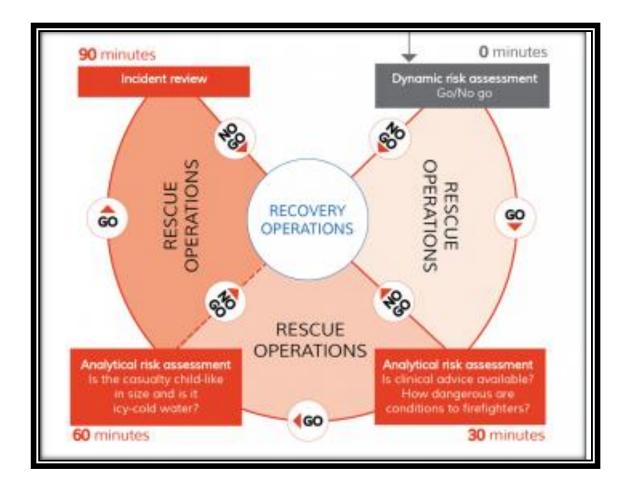
#### Remotely Operated Vehicles (ROVs)

A ROV normally involves a small submersible which houses a battery, propellers and a camera with high powered lighting. It is connected to the land via a tether cable which carries the command wire. The controller is held by the pilot on the bankside.



Photo: Remotely Operated Vehicle (ROV)

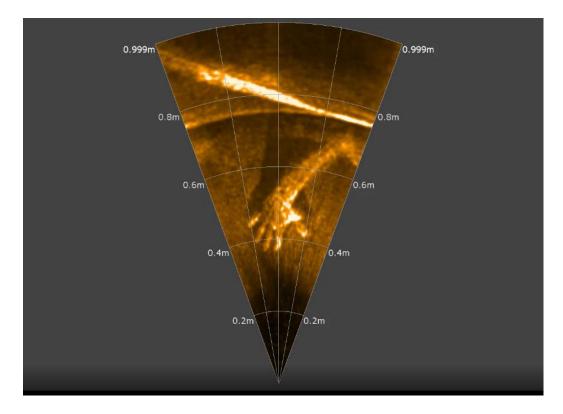
In order to fully close this gap, the Drone Team secured a small amount of investment from the Research and Development group (c.£3,000, photo above) for an underwater Remotely Operated Vehicle in order to conduct feasibility trials, to prove concept; the purpose of its use was to assess its potential for life saving operations and to identify a list of necessary requirements of a fully capable unit. A recently submerged person can present a viable rescue for up to 90 minutes according to national guidance (below). During this time the Fire and Rescue Service (FRS) and other Blue Light responding partners must be seen to be responding or there is a likelihood that others will intervene.



#### **Research Findings**

The LFRS ROV, manufactured by FiFish, was procured for less than £3k, but capable of demonstrating most of the basic functions of the more expensive industrial ROVs. Importantly it had a claw which could be operated by the pilot.

In order to get a wider understanding, LFRS attended a ROV expo in London and invited two of the largest manufacturers – FiFish and Deeptrekker to demonstrate a number of their ROV models at Fleetwood Campus. In order to improve our understanding of SONAR the team also visited Blueprint Subsea in Ulverston who allowed LFRS pilots to use sonar equipped ROVs in Lake Windermere. The company was very helpful and provided a number of recovery videos to the team to show how casualties are located in real life.



All of the models investigated had a long battery life in excess of 90 minutes. Some were more rugged than others, but several important requirements were identified beyond the anticipated operational requirements. These are outlined below.

#### Vision

The degree of detritus in the water severely limits normal camera vision, and highpowered lighting (an absolute necessity at night) can further exacerbate rather than solve this problem, similar to using high beam headlights in the fog. During trials the ROV was able to locate a child dummy casualty at the bottom of Rivington Reservoir in good, clear and still water. It was noted though as the operation went on that the propellers quickly stirred up sediment and vision became poor. This is a conceivable scenario for rescues even in excellent conditions. Search is therefore very difficult with normal cameras either day or night.

Requirement: An ROV requires SONAR in order to search and 'see' through the water. SONAR is particularly valuable in identifying air voids in the water created by recently submerged casualties.

#### Positioning

ROVs cannot access GPS underwater. It is possible however, to know the depth via a barometer and the aspect (the direction the ROV is facing) via a compass. The tether cable is buoyant so it is feasible to get an approximate location of the ROV on a straight run underwater from shore. An available option is to surface the ROV which is not ideal practice once a casualty has been located.

Requirement: An underwater positioning system is required in order to gain precise location data for a casualty. This has a number of other benefits in that the ROV calculates where it is and can stabilise this position accurately against water flows. The positioning system can enable systematic search patterns to be employed by operators (i.e., we know exactly where the ROV has been and where it is going).

#### Casualty Recovery to Surface

No easily transportable ROV can bring a submerged casualty to the surface using just power from propellers. This idea was quickly dismissed during trials. A number of factors can influence the difficulty in raising a person, including size, weight, clothing, buoyancy and water current. The team looked into the feasibility of attaching and operating items such as air lifting bags. Attaching recovery systems was very difficult with the claw operating in good visibility and no current. The only realistic chance of success is to attach the ROV onto the casualty (or more likely their clothing) using an interlocking claw to allow proper grasp. This was confirmed as being in use for body recovery in other parts of the world. A manual hauling from above/alongside via the tether cable would then be required.

This 'grab and retrieve' method was achieved during the trials at Fleetwood Nautical Campus with a higher rated ROV model (the current LFRS £3k ROV did not have sufficient strength in claw or tether cable). It must be noted that moving a casualty was easier from land (i.e., at a low angle) rather than from directly above which meant lifting the weight of the casualty and the ROV. Much of the recovery involved getting momentum established in the first instance. It is likely that a recently submerged casualty would be more buoyant than the weights/dummies used in trials.

Requirement: An ROV must have a sufficiently strong claw grasp & tether cable in order to raise a submerged casualty by manual means from bankside/boat.

#### **Operation**

Operating a ROV in a 3D 'blind' environment such as murky water is a challenging proposition. The drone pilots are used to operating without sight of an aerial drone but the ROV brings another dimension in that it was able to rotate vertically to face upwards or downwards. Some ROVs such as the FiFish can fully rotate in all three directions and on a number of occasions the ROV was upside down without the pilot being aware of its aspect. Other ROVs were demonstrated however, that stayed level with the surface and the camera rotated on a gimbal much like an aerial drone. This was far more controllable for the pilot and much more suitable for systematic searches.

Requirement: The ROV needs to have a simple operation method which eliminates the ability for the ROV to rotate vertically, giving the ability to carry out systematic searches.

#### <u>Control</u>

ROVs are provided with a controller for the pilot to operate. In the case of the LFRS FiFish ROV, a simple controller was provided and a smart phone was used to see the camera feed via an app connected by wi-fi. The controller's simplicity added to pilot confusion as many of the commands and settings were located on an app instead. The use of a smartphone to operate the ROV was understandable due to its costs, but the app often required a reset during operations. LFRS has learned this limitation already with drones and thus uses standalone, manufacturer-built controllers for its operational drones. In trialling SONAR, it was noted that some manufacturers did not integrate the sonar output into the controller, and a laptop or similar device was also required.

Requirement: The ROV needs to be provided with a manufacturers specific controller which integrates all of its functions and imagery.

#### Recommendation

LFRS has deployed a ROV three times to incidents (as at 11/2022) over the 2022 summer period in order to assist rescue teams in recovering casualties from under the water. All three incidents demonstrated the value in deploying the ROV. Unfortunately, these incidents also demonstrated the ineffectiveness of the existing subsurface rescue. In fact, a submerged casualty was located within seconds of the first ever ROV deployment despite extensive searches already having taken place by crews and other agencies.

In order to deliver a realistic search and casualty recovery capability Fire and Rescue Services will need to deploy a ROV currently costing in the region of £70-80k. The complex nature of operations would require a significant investment in training for SRT or boat crews, but much less so with the Drone Pilots who have immediately transferable skills. The ability for the ROV to search for objects in addition to casualties should not be overlooked in this regard.

Therefore, the recommendation is for the Combined Fire Authority to support the procurement of a higher capability subsurface ROV, thereby enabling the Service to become the first nationally to have improved underwater body location and potential rescue capability. An investment of around £80,000 is anticipated which would be funded from from the existing innovation budget and built in to the capital programme, if approved. The deployment of this will place additional pressuers on the Drone Teams revenue budget, which is currently overspent. A review of its deployment is currently underway to ensure it is only mobilised where required.

#### **Business risk**

LFRS previous subsurface rescue solutions have proven ineffective in locating a submerged casualty. In deploying a technological solution, LFRS will dramatically improve the chances of a successful outcome whilst reducing the moral pressure on firefighters and the public to attempt dangerous rescues themselves.

#### Sustainability or Environmental Impact

Warm summers inevitably lead to tragic events involving teenagers entering cold water. Despite extensive preventative programmes, these incidents occur every year and 2022 demonstrated the link between warmer weather and drowning.

#### Equality and Diversity Implications

None

Data Protection (GDPR)

The proposal will involve the processing of personal data given the ROVs have the capability of capturing imagery, albeit far less intrusive than aerial drones which are already in use.

#### **HR** implications

None

#### **Financial implications**

A number of ROVs were demonstrated which were significantly more expensive than the LFRS FiFish. In order to meet the above recommendations an ROV would cost around £80,000. A significant proportion of this cost would be for sonar and positioning systems which are provided by another company to the ROV manufacturers, but integrated by them. Servicing costs differ between manufacturers but are minimal as the units tend to be necessarily sealed. The propellers are the main issue and most manufacturers provide training to operators in order to service their own equipment. Manufacturers also use magnetic drive propellers which eliminate damage to the prop shafts should they become entangled. These have an extremely long service life - well beyond the usage anticipated by LFRS.

As stated above the purchase could be funded from the Authority's Innovation Reserve, which currently stands at £0.25m.

### Local Government (Access to Information) Act 1985

#### List of background papers

Paper: Date: Contact:

Reason for inclusion in Part 2 if appropriate: N/A

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# Agenda Item 11

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By virtue of paragraph(s) 3 of Part 1 of Schedule 12A of the Local Government Act 1972.

Agenda Item 12

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