



Research Paper Three

Gender and Firefighter Selection and Recruitment

MFB Gender Equity Research Project 2004

Paper Three:

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MFB 2004

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This paper is the third of three papers documenting the broad issues surrounding gender in fire services internationally and locally. Staff input into the MFB gender research conducted in 2003-2004 was confidential and all three papers now form part of the educational strategy arising from the confidential research findings.

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FOREWORD

This report is the culmination of significant contributions involving Employment Services and Health and Safety Department staff in the MFB.

The MFB specific findings included in this report emerged from extensive consultation involving individual interviews with MFB specialist staff, observation of recruitment interview processes and review of recruitment selection materials. The findings within this report reflect those issues which emerged in the research process.

The project team would like to thank the Employment Services Department for their time, input and the opportunity to observe the recruitment process. This project would not have been possible without them.

This scope of the research did not extend beyond identifying and reporting on those issues that may impact on gender equity within the MFB recruit selection process.

The project team would like to acknowledge the ongoing work Employment Services are undertaking to continuously improve gender equity within the recruitment selection process.

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As I have spent time within the MFB it is easy to be impressed by the uniformed and corporate personnel and their commitment to their profession and the public. Many women and men engaged with me robustly about the gender issues and challenges and contradictions they see facing the MFB. I appreciated all these conversation for their honesty and commitment to making the MFB a more gender balanced workplace. It was not only the formal group and individual interviews but the informal conversations in corridors and on the fireground that were so important to me in understanding the complexity of the gender and firefighting issues.

Thank you to all those who gave interviews and contributed both positive and difficult experiences from their fire service work. As so many interviewees said, the positive must not be lost in fixing up the not so positive. Everyone spoke of the rich and rewarding times their MFB work had given them alongside the more difficult experiences. It is important to note here too that both women and men have felt the cost of the gender imbalance.

I cannot write the acknowledgements without thanking a few people who have assisted the project in very significant ways. Georgia Prattis as the Access and Equity Advisor, has been unswerving in her commitment to social justice and a fairer and more gender balanced MFB. It is always difficult to stand up for gender issues in any organisation and Georgia never took her attention off the long term road map and professionally supported the research process with that endearing commitment of hers. The project would not have happened without her. I would also like to thank CEO Peter Akers, Jim Carlisle, Kirstie Schroder, Mick Swift and Louise Cannon for their clarity and commitment at very different times and in very different ways. They all stood up for the issues at important times in the project and gave clarity and insights that were fundamental to the long term potential of this project. Last but not least, Dr Dave Baigent from the Fire Research Unit at the Anglia Polytechnic University in the UK gave so much invisible support to the project from overseas. His earlier cultural research findings and his own experience and insights as a firefighter and academic researcher were crucial in reinforcing many of the emerging issues for me.

There were many challenges for me as an academic researcher walking into an organisation such as the MFB. I was definitely the outsider. I was welcomed by so many women and men who shared their experiences and went out of their way to spend time explaining and describing the history and the issues. Thank you for your courage and candour and this series of public papers has been written with your contribution clearly in mind.

Sue Lewis

Contents

Section 1.	Overview of Gender and Firefighter Selection and Recruitment Issues.....	10
1.1.	Overview of gender and firefighter recruitment issues around the world	10
1.2.	Local and Overseas components of the firefighter recruit selection process.....	11
1.3.	Gender dynamics in groups.....	13
1.4.	The Physical Aptitude trials - shuttle run	16
1.5.	The Physical Aptitude trials - - The Mini Olympics.....	17
1.6.	Unfair allegations of favouritism	18
Section 2.	Local MFB Selection and Recruitment Findings	19
2.1.	Summary of where the women dropped out in recruit Course 89.....	19
2.2.	Group Assessment Process	19
2.3.	The Physical Aptitude trials - shuttle run	20
2.4.	The Physical Aptitude trials - - The Mini Olympics.....	20
2.5.	The Recruit Survey	21
Section 3.	Recommendations	22
3.1.	Changing the culture not the people	22
3.2.	Recruitment and selection of Recruit Firefighters	22
Section 4.	References.....	24
Section 5.	Appendix.....	25
	MFB Recruit Fire Fighter Profile and Recruitment Process	25

Preamble

This Metropolitan Fire and Emergency Services Board (MFB) project makes history in metropolitan fire fighting services in Australia. It is the first large scale fire industry 'gender research project' in Australia and as such has had particular challenges and dilemmas. The MFB is not alone in having mostly male operational fire fighters. In many ways the findings and issues directly parallel those elsewhere in the fire industry internationally. Research around the world to understand the masculine history of firefighting has generated uncomfortable findings and will generate diverse views: these findings also represent an opportunity to reflect and implement a progressive set of policies and programs.

This paper is the third in a series of three background information papers prepared as part of a gender equity project for the MFB. The first paper focuses on the gendered culture of firefighting around the world and the issues for women and men as they become firefighters today. The second paper focused on gender issues in recruit training and this paper focuses on gender issues in recruitment and selection processes. All three papers contain a summary of the relevant findings from the Gender Equity Research Project within the MFB and a list of associated recommendations from the MFB Gender Equity Five -year Framework which is forming the basis of an Action Plan currently being implemented within the MFB.

The Gender Equity Research Project for the MFB was based on the premise that any change program must be based on a clear picture of the existing cultural dynamics within the MFB in order to understand the ways in which these cultural factors perpetuate the under-representation of women and ameliorate efforts to address the gender imbalance. The MFB wanted the information and organisational knowledge to plan an effective change program.

Firefighters around the world are heroes in the hearts and minds of the public and nowhere was this more globally transparent than in the tragedy of 9 / 11 in New York. However research into the culture of firefighting worldwide has also shown disturbing and quite 'uniform' characteristics have been normalised by many under the guise of tradition and herein lies the challenge for all fire services in accommodating difference in the future. The formal ways 'things have been done' are coupled to the justifiable public hero role and image but the informal ways things have been done off the fire ground have not always matched this image.

The professional and the personal attitudes surrounding discussions of gender in any organisation can be complex and sometimes contradictory to the theoretical field of what is known about gender and organisational life. The research and organisational experience of gender relations in most male dominated organisations indicate that developing and acting on a gender-based change strategy in the MFB will be complex. Gender issues are still too often viewed as a nuisance and as a threat to the successful image of firefighters around the world.

However, it is also timely and provides an opportunity for the MFB - judging by the data from around Australia - to become a national and international leader in the field. As the leadership of the MFB already know, gender balance will only be achieved with committed, consistent and thoughtful leadership over time. Developing and implementing the change strategy will require both strong executive leadership by all in the MFB as well as 'collaborative' leadership that resides in the hearts and minds of many firefighters and managers. A 5 year framework is proposed.

Each year of the Five-year Framework (2004/2005 –2009/2010) will have a key focus to enhance the central objective to achieve significantly more representation of women within the

operational and corporate strands of the MFB. Year One 2004/2005 is targeted at operational leadership in recognition of the critical under-representation of operational women and the importance of making the most of each recruitment selection round. It does not mean that the issues for corporate women will be ignored alongside this emphasis: there will be strategies for corporate women in 2004/5 but even more in 2005/2006 when corporate women will assume a more central focus.

The MFB Gender Equity Five -year Framework is based on four key recommendation areas with specific actions and indicators of success within each area:

- Leadership and Accountability
- Organisational Development
- Recruitment and Retention of Women Firefighters
- Training and Placement of Recruit Firefighters

These headings arise out of the literature on successful organisational change as well as the specific issues and sensitivities surrounding the issue of gender in fire services worldwide. The wholesale transplant of generic change strategies into a culture such as the MFB will not succeed. Fire services around the world are having difficulties making the cultural changes required and only a sustained, multi-layered and long-term plan will work over time. There are no quick or simple solutions to this complex issue.

Summary of the Cultural Context for Firefighter Selection and Recruitment

This paper builds on the understandings and literature on firefighter culture outlined in Paper One. Please read Paper One in conjunction with this Selection and Recruitment Paper. The following summary includes the important gender issues in relation to recruit selection and recruitment.

Firefighting has been socially and organisationally shaped over time as a male occupation and it is not inherently so.

Stereotypical masculine values, attributes and attitudes are pervasive in fire service cultures and these are all very important in the firefighter job. Such a situation however leads to a lack of gender balance both at the broad cultural level in fire services and in terms of the leadership models and templates.

The more stereotypical feminine values, attributes and attitudes are currently not valued alongside these in balance. There is a tendency for more feminine styles to be put down through constant jokes, ridiculed and avoided at all costs where women are often judged as 'tokens' and honorary men.

There is a very real sense in which the standard of behaviour appropriate for women as firefighters is determined by group male behaviour which leaves women judged according to their participation in, or response to, traditional male behaviours such as joking, competition, sport and drinking.

A more gender balanced fire service culture will exemplify, respect and value, a range of leadership styles and templates on which firefighters model themselves.

When gender and firefighting is discussed within operational contexts, misunderstandings arise from gender issues being heard as criticisms and a perception that masculine attributes are

being judged as 'negative'. These are misconceptions and must be addressed in any cultural change program.

Change programs in fire services are not about replacing masculine attributes with more feminine attributes. Gender attributes are not about alternatives. It is about developing an organisational culture where both feminine and masculine attributes are valued and accepted, within the one person as well as between people.

Local gender issues that impact on firefighter selection and recruitment.

The firefighter recruitment and selection processes provide an important organisational opportunity for implementing the new equity and diversity imperatives for a more gender balanced fire service. If the MFB is to recruit 'new generation' firefighters then the selection and recruitment process must explicitly articulate the criteria for this new generation both internally in the selection processes and staff professional development as well as externally in the marketing.

Firefighting in the MFB is a highly masculine culture and is characterised by a command and control authority style which operates both on and off the fireground and spills over into interactions off the fireground where it is not appropriate. It will be important to employ new recruits who will assist in implementing a more gender balanced fire service.

There are a number of powerful myths surrounding the discussion of gender issues and selection in the MFB and some of these are 'we treat women the same', 'they (women) are taking a job from my son or nephew', 'women are lowering the entry standards', and 'women are receiving preferential treatment over men in the selection processes'. All these myths need to be understood and actively counteracted by management.

There is a broad lack of understanding about the management of equity and diversity issues across the whole organisation and there is a need for an outcomes based approach in the future. Many firefighters still have difficulty articulating that the firefighter culture needs to be questioned and improved in relation to equity and diversity. Recruitment selection panels must represent these new challenges and be trained to understand and articulate them.

There is a strong emphasis on fitting –in to the existing culture and practices which provide a set of contradictions for a modernised fire service. The selection processes must reflect the skills and abilities to both fit-in when appropriate and also stand outside the group where appropriate. This is not an easy task but one of the group contexts could be redesigned to reflect this complexity.

Some firefighters expressed the view that women firefighters had to learn to put up with the treatment they received or they were not up to the job - a job defined by masculine standards and norms. It is important that the recruit selection processes make the current transition clear to women and men in the selection and training processes and eliminate this misconception. Again these views showed a lack of understanding and training about gender equity issues, responsibilities and legal obligations in the past.

The continuation of the current 'double fitness standard' is a glaring contradiction that cannot continue in a modern fire service. The double standard means that new recruits have to achieve very high fitness levels (see section 1) while the current operational workforce is not required to maintain these standards. They are only encouraged to do so.

As summarised in Papers 1 and 2, the issues for women that need to be understood and integrated into recruitment and marketing strategies where appropriate are that women firefighters:

- are paradoxically both invisible and extra visible when they want to be neither
- are challenged to show a sense of humour by accepting anti-women jokes; to do otherwise is to suffer worse hyper-visibility as women
- cannot complain about their treatment or they will draw attention to themselves which produces a new round of putdowns and marginalisation (for example, taking pornography down is blamed on women complaining, not on the legislation that makes it illegal)
- behaviour is seen as representative of their social category as women rather than themselves as an individual
- have to work hard to have their achievements noted or acknowledged
- visibility renders women reluctant to put themselves forward for management development knowing they will be the subject of even more scrutiny
- either find a way to measure up as an honorary man or can be history in many fire stations.

Section 1. Overview of Gender and Firefighter Selection and Recruitment Issues

1.1. Overview of gender and firefighter recruitment issues around the world

Women fire fighters are now employed widely around the world but their proportions remain low unless there are very long term planning and program level initiatives by fire services. There are many reasons cited in the fire service literature but the most common factors identified are that the male dominated culture and image is critical (Cockburn 1981, Eveline 1995, Bacchi, 1994), women are less likely to express interest in fire fighting (Shuttleworth 2001, Richards 1996, Bucke 1994) and women generally do not perform as well as men on the physical tests required for selection (Elliot, 2001).

There is currently no national database that is regularly updated and published on the numbers of women in metropolitan, rural or volunteer fire services in Australia. Paper 1 in this series profiles the numbers of women in these roles within the services listed and was obtained via an email survey directly to Australian metropolitan fire agencies. These data may obscure differences in the definition of what constitutes a female firefighter but show a national pattern: metropolitan fire services in Australia are male dominated and average just 2% women. These data compare with similarly low numbers of women fire-fighters in London (3% in 2004), the UK more generally and in Canada. New Zealand and the USA have shown significantly higher numbers of women where there have been long term intervention and recruitment programs in place.

The US based 'Women in the Fire Service' is a nationally funded organisation that provides a range of resources and events for women in the US fire services. It also collects and posts data on the number of women employed as structural firefighters through its website <http://www.wfsi.org/index.html>.

There are few intensive programs or initiatives to recruit and retain women in fire services around Australia. There were no reported gender research projects or databases for targeting systemic change. There have been women targeted programs in a number of States (Queensland and Perth) where women have been encouraged to apply for selection as a firefighter (Adams and Perry 2002). The data for these states reflect slightly higher Australian data for women in metropolitan fire services.

There have been sustained efforts by many in the MFB to specifically attract women into firefighting roles. Since 1989, recruit advertising has focused in some way on women with recent initiatives advertising in gymnasiums and women's sporting facilities and MFB attendance at community and sporting events where women attend.

Since 1998, MFB recruit advertising has broadened its focus to target Culturally and Linguistically Diverse and Indigenous groups. The MFB have endeavoured to promote recruitment from diverse community sectors by actively participating in employment events and including female firefighters at public forums where possible. The MFB have further maintained a database of "interested" females and provided support, advice and guidance as requested. Typically, prospective candidates have been put in contact with fire stations and physical education staff for advice and guidance in preparation for pre-entry tests as well as making recommendations concerning written aptitude tests and providing other advice in relation to general preparedness.

In 2002 the prerequisite Heavy Rigid licence and First Aid certificate were removed to increase the pool of applicants. Recruitment intakes are now specifically directed at females through advertising at Fernwood Gyms and the Royal Lifesaving Society. However, there has not been a dramatic 'big splash' media event such as Christine Nixon orchestrated in 2003 for the Victoria Police. This campaign sent a very clear message to the Victorian Public that things were changing and women were welcome in Victoria Police. Analysing or critiquing any gender biases in the physical aptitude tests have become very political and counter to traditional views of the importance of 'maintaining the standards'.

Any discussion of change in relation to entry qualifications and standards can be reduced to a simplistic attempt to 'lower the standards' and seemingly threaten the deeply held identity of the firefighter. Not many fire services seem to have undertaken or published any gender analyses on the physical aptitude tests. In the UK, the contested nature of the physical aptitude issue has been demonstrated by the long overdue national report on the review of recruitment and selection process (now 2 years overdue in early 2005).

The literature reveals the obvious about increasing the participation of women in fire services: no fire services have increased the participation of women without concerted and long term efforts. The peak levels of participation of women firefighters in fire services around the world are 15% in some US agencies where intensive recruitment and retention programs have operated for 10 to 20 years (US Women in the Fire Service, 2001). The long-term nature of these programs needs to be reinforced here again and again. Cultural change does not occur overnight.

The issue of firefighter recruitment and selection intersects with the societal images of fire fighting and the social and career perceptions and choices of women and men in our society. Here the MFB has to tackle the long held stereotypes about fire fighting as a career with its very masculine image and identity in society. These associations will not change without intervention. Part of the recommendations from this project is to directly intervene in these stereotypes through media coverage but to do so only when the inside reality can match the new image being portrayed. A media campaign without an internal cultural change program has been shown in the past to do more long-term damage.

1.2. Components of the firefighter recruit selection process.

The following summary outlines the components of the selection process for MFB Recruit Course 89 with the timeline for that process.

Recruit Firefighter Selection Process	Scheduled dates
Written Selection Tests	November 24 to November 29, 2003
Group Assessment	January 27 to February 11, 2004
Firefighter Aptitude Familiarisation	January 31 and February 1, 2004
Medicals	February 16 to February 25, 2004
Firefighter Aptitude Trials	February 14 and 15, 2004
Firefighter Aptitude Trials	February 28 and 29, 2004
Physical Fitness Test	March 5, 2004
Firefighter Aptitude Tests	March 13 and 14, 2004
MFB Selection Interviews	March 15 to March 26, 2004
Offers of Employment	April 1 and 2, 2004

The following Section compares the MFB selection process with a number of other metropolitan fire services in the UK, the US, NZ and Canada in relation to the broad components included in these processes (see Table below). This information was current in Dec 2004 /Jan 2005 with a surprising number of fire service websites showing the selection criteria were under review. As described in Section 1.1, the UK has a national committee in place to review and assess firefighter recruitment with a view to implementing national standards and this committee has become deadlocked over the challenge. The Group Interview process, where it was in place, was not outlined in detail on most websites. The MFB process was a 3-hour process with the following steps:

- Welcome and scripted information describing the process and activities for the 2.5 hours
- Establishing Capabilities where candidates interviewed each other in order to introduce each other to the whole group as an icebreaker (30 minutes)
- Incident Brief where candidate listened to a scripted incident scenario before writing their individual Incident Brief and Plan (35 minutes)
- Group simulates a Critical Incident Rescue Team (CIRT) meeting in order to develop an agreed Group Plan for managing the incident (20 minutes)
- Community Education Presentation where each candidate is provided with information, brochures/ fact sheets about a community issue and asked to prepare and present a 3 minutes talk on the issue using the whole group as a simulated audience (40 minutes)
- Teamwork Exercise where the group is asked to solve a problem as a group and then rate each other on influence and friendship (20 minutes)

Within these activities, candidates were assessed for oral communication, written communication, teamwork, problem solving and influencing.

As the following analysis shows there is much in common with the firefighter recruitment processes around the world. All have security, literacy and numeracy, medical, fitness and interviews prior to selection. It is clearly competitive around the world with long timelines and competitive processes outlined. The following comparisons are interesting given the challenges facing the MFB:

- All have security safeguards in place such as residency requirements and police checks.
- Interestingly, most metropolitan fire services in Canada and the US now have a requirement for an educational background of Year 12 or equivalent which is at variance from the MFB and the UK systems. The UK system has been challenged to review this criteria and it is under intensive review in the current national assessment. The historical pattern of being able to enter the fire service as unskilled and then receive work placed training is shifting in contemporary educational environments where governments around the world see retention of young people to Year 12 as a priority.
- Most metropolitan fire services have very similar 'on paper' standards for written aptitude skills, medical and first aid training and car and heavy vehicle licence requirements. *(The MFB no longer requests applicants to have first aid qualifications and a heavy vehicle licence as prerequisites)*

- There is an interesting link between metropolitan fire services that have a continuous pool of 'interview ready' applicants and those that undertake a new round of in-house physical aptitude testing for each round of recruit selection. Most fire services that operate a continuous pool have also outsourced their physical aptitude testing process so that candidates apply for physical fitness assessment on an ongoing basis with a user pays system. Most outside testing agencies are listed as Universities including Queensland who uses a University provider for this function. When a new intake of recruits is scheduled, these fire services ask 'pool' candidates to resit the physical aptitude test and proceed straight to interview. The rest of the paperwork is already in place.
- There also appears to be a pattern of Canadian and US metropolitan fire services only requiring individual interviews compared with both the group and individual interview components operating in the MFB and in the UK. Interestingly, some Australian fire services have only an individual interview listed. A national review with a view to implementing national standards would be timely in Australia.
- The criteria for aerobic fitness seems to be another point of difference with fire services around the world. Again the Australian and UK fire services are more likely to utilise the Shuttle run with level requirements varying from 8.6 to 9.6 whereas Canadian and US services use aerobic work capacity testing on bicycles. Moving from the Shuttle Run which has a number of gender issues embedded in it (see Section 1.4) may well support a more gender sensitive approach to physical aptitude testing and criteria.
- There is a range of firefighter skills variously named for the job aptitude function around the world. The locally named 'Mini-Olympics' covers a range of strength, fitness and flexibility tests as well as tests designed to test for any phobias surrounding heights and enclosed spaces. Most have rope pulls, hose drags and sprays, ladder extensions and climbing, as well as the dragging of a dummy. The dummy weight for this latter component varies from 50 kg to 91 kg (65 kg in the MFB)..
- A number of metropolitan fire services in the UK, US and Canada openly advertise orientation or information sessions for 'women only' candidates. These events are publicly listed on the calendars for the services 12 months in advance and are advertised alongside the general orientation session dates. These sessions certainly send a clear message to women when they log into the website. They also tend to be the fire services where equal opportunity messages and policies are emphasised and women are portrayed in a range of firefighter duties and responsibilities. The MFB offer physical fitness testing practice days to both male and female applicants. This is believed to be more successful in balancing the need to give women additional support without creating the backlash that is usually attracted by women only events. The MFB website needs to also reflect the current transition to a more gender balanced service.

1.3. Gender dynamics in groups

Gender dynamics in groups is an important set of understandings in both the selection and recruitment processes. All social and organisational processes are gendered (Acker 1992). To revise from Paper 1, gender refers to patterned, socially produced, distinctions between female and male, feminine and masculine: gendered processes means that advantage and disadvantage, exploitation and control, action and emotion, meaning and identity, are patterned through and in terms of a distinction between male and female, masculine and feminine (Acker 1990).

Organisations are not only gendered but are reconstructed in these ways on a daily basis. We all learn the gender appropriate ways to behave as individuals as we grow up and be part of work, family and social groups. If we break these rules then we feel the full import of social coercion to conform. An extreme example would be if a man wore a dress into a fire station casually one morning. Gender is dynamic and we all conform to gender rules on an hourly and daily basis. It is also integral to class and race relations between people in work and social settings: the links between race and class and gender domination are everywhere. White vs black, men vs women, ruling class vs working class. The gender divisions in an organisation like the MFB are everywhere through the gendered patterning of jobs, hierarchies, and power relations. Managers in the MFB now have to make conscious decisions to make some of these processes visible and alter the patterns through new processes. The firefighter recruit selection process is an important component of this change.

The essential issue here in the MFB is that the organisation is out of balance and the more feminine styles of managing and operating have been undervalued; unintentionally, but nevertheless undervalued. This applies to individuals as well as to the organisation. By undervaluing feminine preferences, communication styles and skills the MFB is simultaneously under utilising both the women and men in their organisation. How are men accepted who exhibit feminine as well as masculine qualities? The challenge for the MFB is to rebalance the organisation so that the feminine is valued as much as the masculine. Firefighters can learn to make a sponge just as women can learn to put out fires.

There are many frames in the literature about gender-linked preferences in styles and values but a useful matrix appears in Cornelius (1998):

Perspectives	Feminine Stereotype	Masculine stereotype
Use of power	Equality: prefer to share power with others rather than use power over them – create a level playing field.	Status: shouldering responsibility and measure status by output, position, resources or strength.
Interacting style	Agreement: emphasise similarities and common ground - keep the peace.	Competition: enjoy the challenge of competitive strategies- accept some aggression as part of the 'rough and tumble'
Focus of attention	Feeling: believe the feelings, and sometimes intuition or creativity are what really matter.	Actions and objects: focus on the external world and happiest when doing tasks.
Comfort zone	Interdependence: believe we don't get anywhere alone nor do we have to – see people as a resource.	Autonomy: aim to be an independent, powerful contributor to the organization – make tough decisions.

This research by Cornelius has collated tendencies only and many women and men will be more likely to hold values more usual of the opposite sex. This matrix means that women often

tend to give higher priority to equality and sharing power with others rather than using power over them. Men however are more likely to measure status by output, position, resources or strength. Women are also seeking to emphasise similarities and common ground more often than men, whilst men enjoy the challenge of competitive strategies. Women however are more likely to orient to and value the internal world of emotion and tolerate ambiguity and uncertainty whilst men focus on the external world or the world of ideas and are happiest when dealing with actions and objects. Women are more in their comfort zone through the collective group activity and seeing people as a resource for support, information and advice. Men however are more comfortable being an autonomous, independent powerful contributor to an organisation.

This matrix is useful when considering firefighter recruitment issues such as group selection processes. One of the most problematic issues for group interviews is the underlying assumption that there are no gender and cross-cultural dynamics operating in the group interview context. Allied to this assumption is another assumption: the gender and cultural composition of the group have no impact on the performance of the individual applicant in the context of a group interview. Here high visibility is a key and expressed criterion for success in the group interview: self-promotion, autonomy and individualism were linked in many panel discussions. Gender dynamics in a male dominated setting advantages men over women (Fletcher 2001, Sinclair 2001, Moss Kantor 1977, Eveline 1998). Here the very definitions of success in the group are often male defined and problematic for some of the women and some of the men. Gender stereotypes can be used inadvertently to advantage those who fit the stereotype.

In *Disappearing Acts*, Joyce Fletcher (2001) uses her research in engineering to show that women's relational and communication skills are actively 'disappeared' in a masculine work setting. The engineering work culture is full of the high-visibility problem solver and the importance of self-promotion. Fletcher draws on interviews, shadowing and discussions to show how relational practices in the engineering environment – communicating, empowering others, building and maintaining work relationships and working through team processes – are at odds with accepted organisational narratives about success and effectiveness. They flaunt conventional definitions of appropriate ways of working and are viewed as 'something other than work'.

Importantly, Joyce Fletcher uses her research to disrupt the entrenched view that women's skills are simply invisible. She illuminates the *active* ways in which women are devalued for practising relational skills such as empathy, mutuality, reciprocity and sensitivity to emotional contexts. She shows how organisations 'disappear' these relational skills of women. In an organisation where the narratives are largely masculine then the discourse operates very strongly to render these more feminine perspectives invisible despite the best efforts of a few to raise them.

Members of a group confer value and attention onto each other and 'gender dynamics' is the study of the gendered nature of these interactions. Men take suggestions from men more often than they do from women – this is part of the hidden male advantage which does not operate at the conscious level. These men were not deliberately acting to disadvantage women in these interactions but were simply continuing the social and work dynamics of their social experience in an unconscious way. Men in a predominantly male group invariably confer power and status onto men and away from women.

1.4. The physical aptitude trials – the famous shuttle run

The shuttle run (or beep/bleep test) is a test to determine the maximum aerobic endurance of a person and is often used in sporting and physical aptitude testing. The test was developed in 1982 by Leger. Basically you run up and down across the gym between two lines twenty meters apart. The test is performed indoor and the speed of the participants is determined by the interval between two beeps played on a cassette. The starting speed is 8 km/h and each minute the speed is increased by decreasing the interval between the beeps (this is called the next stage). The cut-off used by the MFB is the level of 9.6.

Women cannot compete with men fairly as a group using the same shuttle run cut-off as their bodies are simply different. Not inferior but different. The following article discusses the gender differences in physiology that provides the understanding for this difference:

<http://home.hia.no/~stephens/gender.htm>

“The “typical” young untrained male will have an absolute VO₂ max of 3.5 litres/min, (VO₂ is the rate at which the body is able to take up and use oxygen from the air which in turn determines the maximum amount of work the muscles can do in exercise) while the typical same-age female will be about 2 litres/min. This is a 43% difference! Where does it come from? Well first, much of the difference is due to the fact that males are bigger, on average, than females. Us humans are all (sort of) geometrically similar, so heart size scales in proportion to lean body size. If we divide VO₂ by bodyweight, the difference is diminished (45 ml/min/kg vs 38 ml/min/kg) to 15 to 20%, but not eliminated. What is the source of this remaining difference?

If we compare average body fat in males and females, we find part of the answer. Young untrained women average about 25% body fat compared to 15% in young men. So, if we factor out body composition differences by dividing VO₂ by lean body mass (Bodyweight minus estimated fat weight)) the difference in maximal O₂ consumption decreases to perhaps 7-10%. Keep in mind though that this is only a meaningful exercise on paper. A female athlete cannot expect to improve her performance by reducing her body fat down to the sub 7% levels that are often observed in elite males. The health consequences for the female are too severe.

To find an explanation for the remaining 10% difference we must go back to the key limitation on VO₂ max, oxygen delivery. On average females have a lower blood haemoglobin content than males, up to 10% lower. Finally, there is some evidence, that the female heart is slightly smaller relative to body size than the male heart. Recent ECG and echocardiographic studies also suggest that the young female heart exhibits fewer enlargements in response to either endurance or resistance training than the male heart (George et al, 1995). This may be due to differences in androgen receptor density in the female heart. A smaller heart would be expected to be a less effective pump.

Slightly lower oxygen carrying capacity of the blood (lower haemoglobin levels) plus a somewhat smaller or less adaptive heart are sufficient to account for the gender differences in maximal oxygen consumption that are independent of body size and fat percentage.”

There are a number of options to restore some gender fairness to this test:

- Retain the Shuttle run and have two different cut-offs that represent excellent fitness or average fitness for both women and men AND then run a very clear education campaign to educate everyone about why

- lower the Shuttle run level to more fairly represent the average fitness of women (8.6) and the reality of the fitness levels of most of the existing male workforce (as the London Fire Brigade has done)
- abolish the Shuttle run altogether (as in NZ) and use an alternative fitness testing system. This could be the Canadian model of using aerobic work capacity testing on bicycles or training for fitness and the real parameters of what is required on the job (as in the Mini Olympics).

1.5. The physical aptitude trials - -the mini olympics

The second component of firefighter physical aptitude testing comprised a series of firefighting related physical tests commonly referred to as the Mini-Olympics locally. The local components of this testing were reproduced in varying forms around the world. These local series of timed tests start with a task attaching and detaching fire hoses to water mains, using ladders and bolt cutters, climbing up the tower carrying BA and other equipment, through to holding a fire hose under pressure and ending with dragging a 65kg 'dummy' through a building.

In the March 2003 physical aptitude trialling, all remaining applicants were given the option of two training sessions to maximise their chances of success. Previously this option was only provided by seeking assistance at a fire station. This dealt with the main gender criticism of these series of tests to date: these tests represented a skill training issue and not a fitness test and they could be passed in most cases *with* training. Prior to this selection process they had been more of a hurdle for women and men. The following discussion on upper body strength and power identifies the differences between the sexes as a function of muscle quantity which is one of the central gender issues in the MFB Mini Olympics.

<http://home.hia.no/~stephens/gender.htm>

"Although maximal muscular strength and anaerobic power has little to do with pure endurance performance, there are many events which can be classified as "power-endurance" events. These events ranging from 2 to about 8 minutes require some combination of aerobic and anaerobic capacity. For this reason, I think it is important to also consider this "anaerobic" component of the performance package. When we talk about anaerobic capacity, the critical determinant is muscle mass. *Females, on average, have less total muscle mass than males. As a result, maximal strength measures as well as maximal power measures (power = force/time) are reduced.* Gross measures of upper body strength suggest an average 40-50% difference between the sexes, compared to a 30% difference in lower body strength. What about power? Maud and Schultz compared 52 men and 50 women, all about 21 years old using a maximal power test on a bicycle ergometer. Peak power was about 60% lower for the females when comparing absolute values. But, the men were heavier. Peak power per kg bodyweight was more similar, 9.3 watts/kg vs 7.9 watts/kg for the women, an 18% difference. Finally, when power outputs were adjusted for fat-free mass, the values were 10.4 watts/kg and 9.9 respectively. This 5% difference was not statistically different. Numerous other studies using different techniques have demonstrated that when you just look at muscle quality, male and female muscle is not different. Within the accuracy of current comparative techniques, it appears that the strength and power differences between the sexes are a function of muscle quantity only. Biomechanical differences probably play a role in some situations, but this will be very sport specific."

1.6. Unfair allegations of favouritism

The sensitive issue of 'special treatment for women' or favouritism is a cultural issue for all male dominated occupations as they seek to create more gender balance. The issue impacts directly on women in the recruitment and selection processes and needs clear leadership and direction in the recruitment and selection processes in order that the women selected do not have to deal with the fallout. The existence of any dedicated programs for women makes women a target for comments by men and women about favouritism. 'Women-only' training for the physical aptitude tests has been an example of this in the UK and the US and more recently here. The negative afterimage of 'favouritism' comments leaves women doubting that they have been selected as a recruit on the basis of their skills and abilities. This is why the MFB chooses to offer the practice sessions to both male and female applicants.

Section 2. Local MFB Selection and Recruitment Findings

2.1. Summary of where the women dropped out in recruit Course 89

Summary of the progress of women and men in the recruitment for Recruit Firefighter Course 90 (November 2003 to April 2004):

Selection component	No. of women (% of total)	No. of men at start (% of total)	No. of women at end (% of total)	No. of men at end (% of total)	No. of women eliminated (% eliminated)
Group Assessment (700 at the start)	34 (5%)	665 (95%)	12 (9.7%)	112 (90.3%)	22 (63%)
Physical Aptitude Trials- Shuttle Run	12 (9.7%)	112 (90.3%)	6 (5%)	106 (95%)	6 (50%)
Physical aptitude Trials – Mini Olympics	6 (5%)	106 (95%)	5 (4%)	106 (96%)	1 (17%)
Individual Interview	5 (4%)	106 (96%)	5 (14%)	31 (86%)	0 (0%)

The following findings summarise the issues observed during the research into the selection and recruitment processes for Recruit Course 89 from November 2003 to April 2004.

2.2. Group assessment process

Women had an additional selection criteria imposed on them unofficially – that of surviving the male group dynamics – even though it is commonly argued that women need to be able to deal with these male group dynamics in the fire service. Again this is a statement from the standpoint of the masculine values in the organisation and carries with it the unexamined assumption that women have to assimilate into the ways of men. Not men having to start accommodating the feminine in the organisation.

The ideas and suggestions of men were written down and incorporated into the group more often than those from women. The scoring of these dynamics consistently showed that the group valued the ideas of men twice as often as those for women. The meaning of 'valued' was either ideas that were written down or verbally acknowledged by the group.

Women were interrupted at a greater rate than men when contributing to group discussions. The women were interrupted more than the men in each of the 6 situations recorded. The status afforded to women in the group was not as great as men. There was one group where a quietly spoken woman was interrupted every time she spoke despite making very different and commonsense suggestions that were people focused. This woman did not appear in the next round of interviews.

'Quiet' women and men were at a very distinct disadvantage in the group interview process. Most people can find ways to present their skills in an individual setting such as an interview but this can become problematic in the group interview context. In the fire station context individuals would be able to build this respect and confidence over time.

There was no gender specific training for the panel members in a context where there were few applicant women competing in a very male group applicant environment.

There was only one corporate woman present in the group assessment team of 9 which meant that 2/3 of the panels were all male panel members interviewing all male groups of applicants.

The MFB grouped the women applicants in subgroups of three for their Group Interview Process so that they were always in a group of 30% women. The surprisingly common issue of 'no-shows' often undermined this goal and women were either one of two or alone in a number of group interviews.

In many of the group activities, high visibility was a key and expressed criterion for success in the group interview: self-promotion, autonomy and individualism were linked in many panel discussions. There may be two issues operating here to make the context more difficult for women or applicants from other cultures who may prefer interdependence and place their own goals second to the group goals. Their skills are not being assessed on balance with the men and they are outnumbered and with less opportunity to display any other preferences in the group.

The underlying assumption was that the situation was equally fair on everyone with very little knowledge of the gender issues that can operate in group dynamics.

2.3. The physical aptitude trials - shuttle run

The shuttle run is probably the clearest case of gender differences in physiology being used as a gender biased selection criteria (under the assumption that it is fair for all).

The shuttle run cut-off effectively asks men to be of average fitness and women to be of excellent fitness (VO2 levels /MFB Health Maintenance diary). This is in an organisation which continues to have stringent physical entry requirements which are not required to be maintained after induction and training.

2.4. The physical aptitude trials - - The mini olympics

All applicants remaining at this stage were offered two training and trial tests for the first time. The role of the trainers in assisting these women and men to train and develop techniques to pass these tests was impressive.

The Mini Olympics assesses a range of physical skills but the upper body strength issue was born out in the results for the women and men.

The slightest frame woman was unable to drag the 65kg 'dummy' the required distance and did not pass. She was the only person to not progress through the Mini Olympics. Interestingly though, two other women with light body frames passed the test through tuition and developing their own techniques for dragging the 'dummy'.

These trials illustrated that the skills required to pass these tests can be developed through training in most cases.

The issue of upper body strength was clearly an issue for the woman who failed.

Standards of upper body strength are clearly required for the job and deciding on any change to the cut-off would create more accusations of 'lowering the standards' and would seem unnecessary on the basis of these results.

The provision of 'Olympics' training for all candidates is clearly the fairest and most effective way for the MFB to conduct this series of tests. The provision of this training option needs to be continued in the future

2.5. The recruit survey

The age profile of women applying was more weighted towards generation Y and showed 36% in the 21-24 age bracket compared with the men. The distribution of men more closely approximated the 'bell' shaped curve with the peak age bracket covering 28% in the 25-29 age grouping.

The women candidates were similar in their educational background to the men except that 25% had completed university compared with 18% of the men. This was matched with a corresponding higher number of men that had completed years 10 and 11 (11%) compared with the women (6%).

There were very few differences in where the candidates found out about the recruitment drive for the MFB with 60% for both responding to media advertising. Interestingly the number of women finding out about the recruitment from a MFB firefighter or staff member was higher: 54% compared with the men on 43%.

The women were very oriented towards a thorough preparation for the recruit selection process compared with the men. This was most clearly evident as the number of 'stated preparations' recorded by candidates with 40% of women reporting 5 ways they prepared for the selection process compared with 20% of the men. Both women and men however showed a remarkable commitment to being prepared for their selection process.

Section 3. Recommendations

3.1. Changing the culture not the people

The following recommendations have been designed around the international and local findings as well as the advice from a two-week information gathering tour in the UK in late 2003 (See Project Reports). For each of these key recommendations, there are a series of key actions required with target dates, people accountable and success indicators listed in the 2005 Implementation Plan. These form Year 1 of the MFB Gender Equity Five Year Framework currently being implemented (see Gender Equity Implementation Plan for 2005). The following section 4.2 includes the key recommendations pertaining to recruit training from this Implementation Plan.

The culture of fire fighting services around the world have been described more fully in Paper One in this series. Firefighting is defined and redefined around the world as a job characterised by the skills men are perceived as having and women are normalised as lacking in the job. The script for the successful firefighter has been reiterated many times in other studies as well as here in Melbourne (WFS 2004, Baigent 2001, Bucke 1995). These stories will need to be one of the sites of action as it is here that - however unintentionally - men's behaviour is normalised and women remain the problem to be solved.

Firefighting is one of the most sex-segregated professions in the world of work and the task of developing a more gender-balanced fire service is at the core of the challenges coming out of this study. Firefighting has been marked as men's work and hence describing the problem itself becomes problematic. The future selection and recruitment of firefighters is an important site for implementing the change model for a more gender balanced fire service.

3.2. Recruitment and selection of recruit firefighters

Key recommendations

- 1 Initiate a continuous recruitment strategy in order that the MFB establishes a 'continuous applicant pool' and assesses new recruits on a continual basis

Establish improved workforce planning processes to more accurately predict recruitment intakes and advertise these dates over the long term on websites and through outreach work and publications

Establish a database of women who want to be firefighters and offer training and support sessions for the physical assessment process on a continual basis

- 2 Initiate a high profile marketing and recruitment campaign for women as part of this continuous strategy for the next recruit intake and evaluate the outcomes

Design a high profile marketing to women campaign based on the findings of the Gender Equity Research

Integrate the Outreach Team initiative into this campaign and evaluate the outcomes

Communicate the Women's Marketing strategy clearly and unambiguously to all MFB personnel to ameliorate the backlash for women

Include campaign materials in Outreach Team Kit

Update the website further to articulate clearly the goal of a more gender balanced fire service of the future and the provision of women only support and information sessions

- 3 Review the physical fitness and aptitude assessment process to confirm necessity of current standards and validity for role requirements.

Establish an externally and internally moderated panel to review the data around physical fitness standards in relation to firefighter role.

- 4 Ensure comprehensive professional development of all future recruitment panel members to integrate gender equity research findings

Train all recruit panel members for both the group and individual selection interviews to ensure that traditional styles of communication and competitive behaviour are not normalised

Review the group activities and the criteria for success in the group interview setting to ensure different communication styles are valued by all panel members

Trial and evaluate an external gender expert as part of the panel team of interviewers and to rotate through the different panel interviews

Continue the practice of clustering women in-group assessment processes

- 5 Provide support and frameworks for all women employees within the MFB

Use the literature understandings from the gender research report to underpin a professional development module for all women to understand the issues of working in a male dominated setting such as the MFB

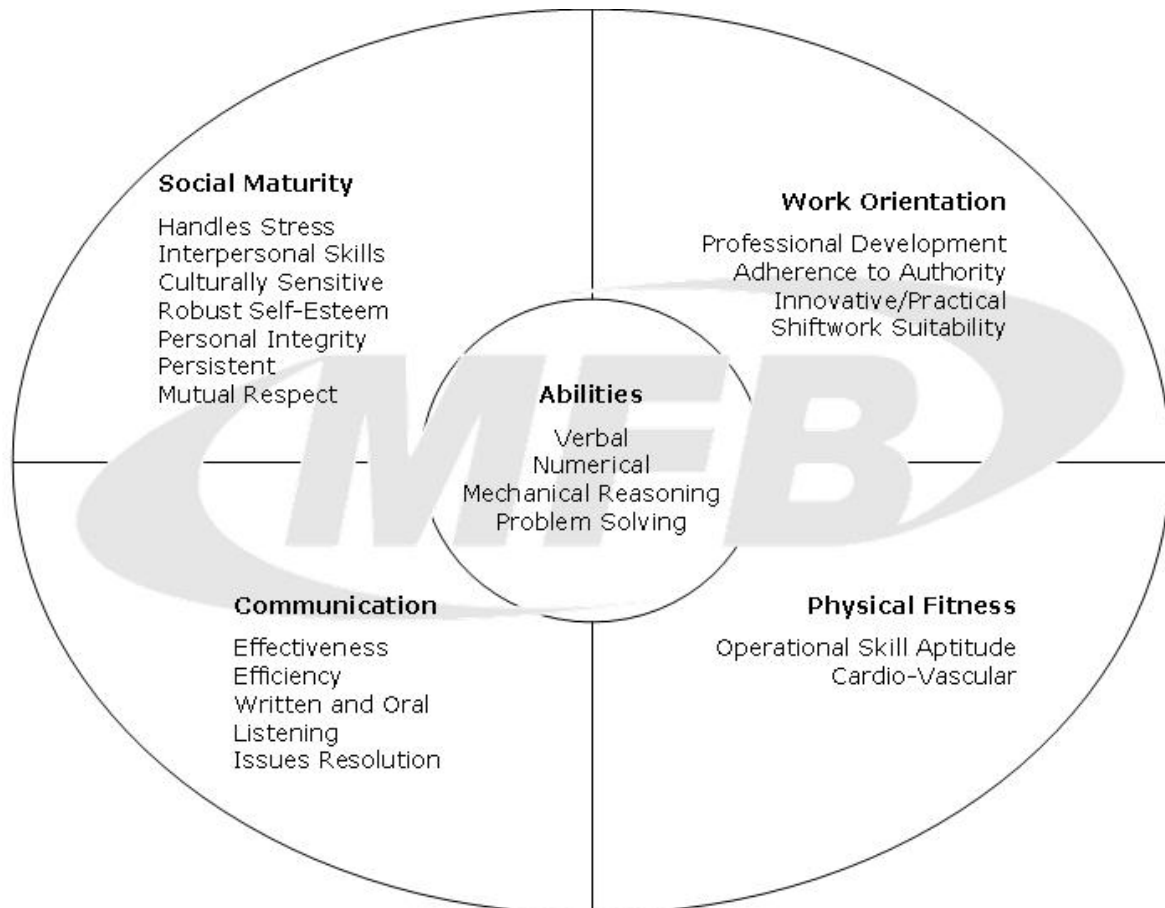
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Section 5. Appendix

MFB Recruit Fire Fighter Profile and Recruitment Process

MFB Recruit Firefighter Profile



Relevance of Required Attributes Mapped Against Recruitment Process

Abilities		Attribute Assessment/Measurement Detailed in Attachment C
Verbal	Measures the ability to grasp and use relationships among concepts stated in words.	Written Test
Numerical	Measures the use of mathematical skills and facility with numerical aptitude.	Written Test
Mechanical Reasoning	Measures the ability to perceive and understand relationships between components within a mechanism.	Written Test
Problem Solving	Measures the power to understand and apply concepts expressed in non-verbal diagrams.	Written Test
Social Maturity		Attribute Assessment/Measurement Detailed in Attachment C
Handles Stress	The ability to operate in an environment which may expose firefighters to situations involving mental and physical suffering, injuries and death.	Interview Work Preference Questionnaire
Interpersonal Skills	The ability to communicate with peers, superiors, subordinates and members of public in a diverse community.	Group Activity Interview
Culturally Sensitive	An understanding and respect for difference in the communities of the Metropolitan Fire District. This includes, but is not limited to: Race Religion Age Gender Socio-economic environment etc	Interview Work Preference Questionnaire
Robust Self-Esteem	The ability to operate in a "live in" environment requiring staff to relate to peers, superiors and subordinates in periods of extreme tension to periods of possible inactivity.	Group Activity Interview Work Preference Questionnaire
Personal Integrity	Due to the nature of the interaction firefighters must at all times display high levels of personal integrity in dealing with the public who at times may be in circumstances of extreme stress. The requirement to enter onto property and into buildings with key access necessitates a high level of personal integrity.	Interview Police Vetting Check Reference Check
Persistent	An attribute which enables firefighters to remain task focused in environments which are often mentally and physically demanding.	Interview Work Preference Questionnaire
Mutual Respect	The ability to operate in a team with an awareness of and sensitivity to individual difference.	Group Activity Work Preference Questionnaire Interview

Physical Fitness		Attribute Assessment/Measurement Detailed in Attachment C
Operational Skill Aptitude	Physical skill aptitude to perform the physically demanding role of a firefighter.	Physical Skill Aptitude (Mini Olympics)
Cardio-Vascular	Physical fitness to perform the physically demanding role of a firefighter.	Physical Fitness (Shuttle Run)
Communication		Attribute Assessment/Measurement Detailed in Attachment C
Effectiveness	Demonstrates communication skills to liaise, present, negotiate and communicate effectively at the appropriate level.	Group Activity Interview
Efficiency	Demonstrates efficient communication by listening, questioning and clarifying to ensure understanding.	Group Activity Interview
Written and Oral	Demonstrates communication skills to convey information in an easily understood manner at the appropriate level.	Group Activity Interview
Listening	Listens to others and questions ideas in a positive and constructive manner.	Group Activity Interview
Issues Resolution	Demonstrates a progressive approach in developing a suitable solution.	Work Preference Questionnaire Group Activity Interview
Work Orientation		Attribute Assessment/Measurement Detailed in Attachment C
Professional Development	Demonstrated approach to continuing education and enhancing personal skills and attributes.	Resume Interview Reference Checking
Adherence to Authority	The ability to follow directions ensures a safe environment and expedient resolution to incident management.	Interview Work Preference Questionnaire Reference Checking
Innovative/Practical	A practical approach to problem solving.	Written Tests Group Activity Work Preference Questionnaire
Shiftwork Suitability	Demonstrated approach to the management of the impact of shiftwork.	Interview Work Preference Questionnaire

RECRUITMENT PROCESS

Pre-entry Requirements

- Australian Citizen or Permanent Resident
- Current Driver's License

In the past the MFB required First Aid Level 2 and a Heavy Rigid Endorsement on the driver's License as pre entry requirements and these were removed as potential barriers to females and CALD applicants.

Written Tests

Written Selection tests which assess an applicant's ability in the following areas:

- Numerical awareness
- Verbal reasoning/decision making
- Non-verbal reasoning
- Mechanical reasoning

The tests used in future recruitment campaigns will be different to those used in past campaigns however, they will assess the same skills but will offer a significantly higher level of security. The level of access to the current tests has necessitated the change to ensure a level playing field for all applicants.

Group Assessment Centre Activity

Group Activity which assesses the following competencies:

- Oral communication
- Written communication
- Team work
- Problem solving

This element of the process will continue to be used with the format changing slightly each time to ensure the results are not contrived.

Work Preference Questionnaire

Questionnaire that assesses an individual's work preference style.

This element of the process is quite a recent inclusion and will be evaluated on an ongoing basis with alternative tools being compared and evaluated.

Physical Skill Aptitude Familiarization Program

This process involved a familiarization session and a practice run through the physical skill aptitude test. This program will be further developed for future recruitment campaigns to include total physical preparation for the role of a firefighter.

Physical Fitness

Physical Fitness assessment which requires the applicant to complete level 9.6 in the shuttle run.

This element of the process will continue to be used and preparation for the shuttle run will be covered in the physical preparation program to be developed.

Physical Skill Aptitude

Physical Skill Aptitude test which requires the applicant to complete a task course of Firefighting simulated activities within a specified time.

This part of the selection process will remain and is evaluated after every recruitment campaign to ensure its ongoing relevance.

Selection Interview

- Aptitude for emergency response role.
- Understanding of the role.
- Understanding of the impact of shift work.
- Understanding of the associated dangers, stresses and trauma.
- Ability to communicate with a diverse range of people.
- Reference checking.

This part of the process will remain in its current format.

Medical Examination to ascertain fitness for Firefighting Role

Police Vetting Check