Technology, Training and Turnout

One of the biggest challenges faced by the WA Fire Service was water. It was critical to not only improve access to water by brigades but also its delivery at a fire scene.

Hand operated pumps were limited. They could not produce enough pressure for effective water delivery especially at a major fire.

It was not until the introduction of the steam engine in the late 1800's did improvements occur. The boiler on the horse-drawn steam pump could generate considerable pressure. This was achieved by keeping the water chamber just below boiling point. A fire was then lit under the boiler before leaving, which would boil on the way to a fire. There would then be enough steam to drive the piston and pump the water.

It would have been amazing to see horses at full gallop heading to a fire followed by a trail of steam. It would have also taken considerable skill to drive these horses through the bustling city, turn corners and give way to pedestrians. However, accidents did happen on occasion. In the WA Fire Brigades Board Minutes of 1899, it notes a collision between the Perth horse drawn steam pump and a baker's cart. One of the brigade horses was killed.

Brigade horses were well trained for their role. A demonstration for the Governor in 1905 recorded a turnout time of less than a minute. This turnout involved the stable doors opening automatically, allowing the horses to leave their stables, move into the engine room and stand in front of the appliance they pulled. Firemen would then have entered the engine room where they would fasten the harness and speed out of the opened doors.

It was the internal combustion engine, which was the turning point for emergency response. In 1910 Fremantle Fire Station received WA's first motorised fire engine. Perth received a motorised crew and hose carrier in 1911. However, it was not until the 1920's did country stations receive motorised appliances. These early appliances were open cab and it was not until 1938 did the fire service commission its first closed cab vehicle.

Horse-drawn and motorised appliances served along side one another until the mid 1920's. Kalgoorlie fire station said farewell to the last brigade horse in 1926. The WA fire service continued purchasing motorised appliances from England, the United States of America and Japan. Response times to fire calls continued to improve as did the capacity to fight a variety of fires and hazardous situations. In 1965 a Dennis Heavy pumper was modified into a foam-generating appliance to combat chemical fires.

Breathing protection was also an important focus for the fire service. The first breathing apparatus was introduced in 1913. It pushed air down a hose to the fireman via a foot or hand pump. Closed circuit units were introduced in the

1930s', which recycled air. In the 1960's, compressed air cylinders were introduced and continue to be used today.

With the increase in industry and the use of chemicals, protective clothing was introduced to the fire service in the 1970's. It was vitally important to protect fire-fighters from toxic and chemical substances. Splash suits or fully encapsulated suits along with breathing apparatus are worn by fire-fighters in emergencies that pose a risk of contamination.

The WA Fire Brigades' Board handed the ambulance service to the Saint John's Ambulance Association in 1922. However, firemen still performed a vital support role. Rescue training, especially for road accidents, continued and the first hydraulic cutting tools were introduced to emergency response vehicles in the early 1970's. In 1985, the fire service became officially called the Fire and Rescue Service to reflect this dual role. This also marked the year that women could be recruited as career fire-fighters.

Training and technology has continued to be a major component of fire service operations. A special services facility was built in Melville near Fremantle in 1961 and was responsible for repair of brigade hoses and extinguishers. In 1968 a large workshop was built in O'Connor to service and repair brigade equipment and appliances. In 1989 the first stage of a large training facility was built in Forrestfield and remains the location for fire-fighter training.

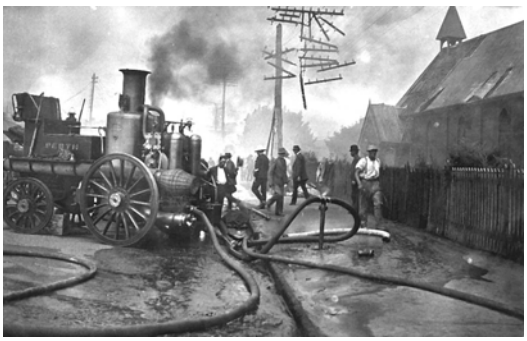
Instruction and equipment for volunteer brigades is also a major task and has expanded over the years. After kick-starting the fire service in 1888, volunteer fire brigades continue to serve and protect the country towns across this vast State. Often the only means of fire and emergency response in these remote areas, supporting and maintaining volunteer fire brigades and stations is vital.

Fire-fighter teams and individuals are trained in structure fire fighting, line rescue, confined space rescue and urban search and rescue. The understanding of hazardous materials, their behaviour and threat to the community are all part of the emergency response capability of WA career and volunteer fire-fighters.

Fire service technology has continued to improve making emergency response faster, safer and more effective.

An inventory of all WA Fire and Rescue Service career and volunteer appliances is on display in the main engine room.


Hand pumps used through the 1800's and early 1900's



Steam pumper in use at the timber yards fire in the early 1920's, Perth. Notice the standpipe in use accessing a street hydrant. The development of piped water by Perth Water Works, greatly improved fire-fighting ability. Water could be accessed from the street rather than having to search for a well or natural source upon arrival at a fire

Delivery hose in action from a steam pump appliance

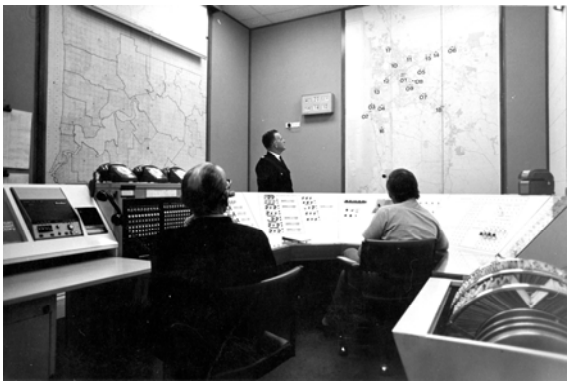
Thundering down Murray Street in front of Peth Fire Station 1911. These two horses are drawing the turntable ladder. The appliance was later hitched to a motor vehicle.

A rare shot. Turn out from Perth Fire Station 1911. Two horses are drawing the heavy steam pumper.

Rescue drill - Perth Station

fire-fighters receive pump training for the new ERF multi purpose pump in 1975

Perth turn out 1965



Into the electronic era, Perth Fire Station operations room c1972

Perth Fire Station Muster, rear yard 1956

High expansion foam training, it works!

Road crash rescue at a serious accident. Hydraulic cutting tools are in use c1972