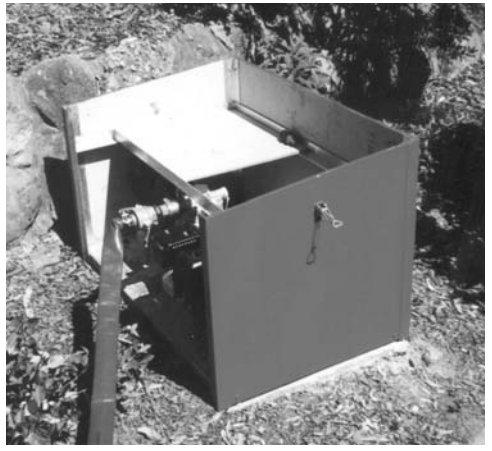
Testing and Maintenance

- Before the bush fire season test the pump and sprinklers and thereafter, start the pump for one minute each week during the season. Experience shows that mud wasps, spider webs and dust can be a problem in sprinkler heads and a regular flush is therefore required.

- If you depend on tank water, it's most important that, when testing your sprinkler system, you don't contaminate your drinking water with pool water. Block stormwater pipes or divert run-off water away from tanks if possible.

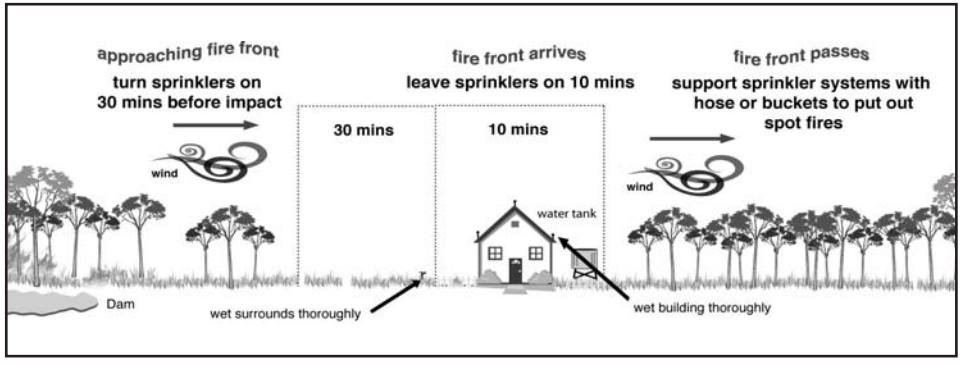
- If you are drawing water from a swimming pool, prevent long-term staining or corrosion by washing down the roof and house with town or tank water after a full system test.

- Be aware of water restrictions.



PROTECT YOUR
PUMP FROM FIRE

When to Operate Your System



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NSW RURAL FIRE SERVICE

3 bush FIREWISE

EXTERNAL SPRINKLER SYSTEMS

If you are building a new house or doing major extensions you will be required to meet the standards in “Planning for Bushfire Protection”. By following these conditions your house will comply with the safety standards and possibly will not need an external water sprinkler system (EWSS). If, however, you have an existing house, and you live in a fire-prone area, this pamphlet provides guidance on installing a system to enhance your fire safety.

SPRINKLER SYSTEMS

** A sprinkler system alone will not provide adequate fire safety measures for your home but can greatly enhance your survivability if all other property preparations have been done.*

Sprinkler systems, also known as external water spray systems, will add considerable protection to a well-prepared property.

A sprinkler system is used to cover the property with water and, at the same time, can be designed to be utilised as a firefighting resource. Apart from sprinkler heads, hose outlets can be incorporated into the system (if there is enough pump capacity). Hoses can then be attached and used to put out spot fires.

If there is a bush fire in your area and your property is well prepared it is important that you stay at home to start the sprinkler system and help firefighters protect your property. While computerised sprinkler systems are available, systems should rely on manual operation. If you are considering a computerised sprinkler system you need to be aware that the power could fail during a bush fire and render the system useless.

Systems should not utilise reticulated mains systems as these are usually being used by firefighters who can draw large amounts of water, limiting your system or making it unusable.

** Check your local council to determine if approvals are necessary to install a system*

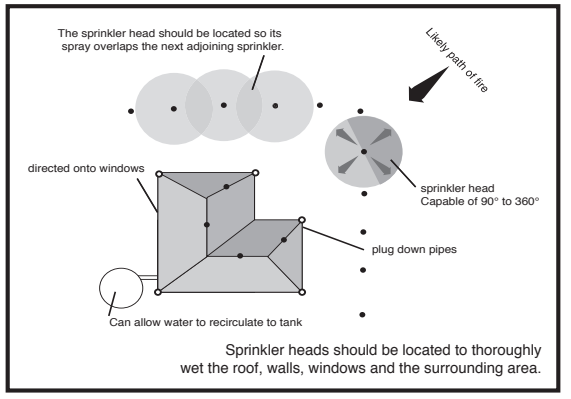
EFFECTIVE SPRINKLER SYSTEMS SHOULD MEET THE FOLLOWING CRITERIA:

Independent Water Supply

- As mains water pressure is likely to be reduced and unreliable during bush fires, connect the sprinkler system to an independent water supply.
- The independent water supply could be a swimming pool, rainwater tank or dam and should be at least 22,000 litres. This is sufficient to run a sprinkler system for a single dwelling for one hour or more depending on the number and types of sprinkler heads used. The capability can be extended if water is recirculated from the roof to a tank or back to the pool, dam etc.

Pump

- If your water supply is 25 metres or more above the sprinklers, gravity can get water around your system; if not, your system will need a petrol or diesel powered pump.
- As power is likely to be lost during bush fires, do not use an electric pump (unless you have backup power such as a generator).
- Locate the pump as close as possible to the water supply. Avoid placing the pump below the water level as an airlock can develop in the suction hose.



- Use the correct size, flame-resistant, suction hose with end strainer.
- Keep the pump out of the weather and protected from fire.
- Your local pump/irrigation shop will advise you on the right pump for your needs.
- Ensure that the fuel capacity will allow the pump to run for at least one hour.

Sprinkler Heads

- There are several types of sprinkler heads that are suitable for use. The sprinkler head should provide for total saturation.
- Head selection will depend on several factors including wind speed and direction.
- Water droplet size is important, as a fine mist can be blown away from the structure to be protected.
- There is no Australian standard for sprinkler systems.
- There are several commercial companies who have designed sprinkler systems using a variety of sprinkler heads.
- Have a look at as many sprinkler systems as you can before determining which is best for your application.
- When fitting a DIY system talk to irrigation supply outlets and other businesses for advice.

Pipes

- Metal pipes are recommended.
- The pipe from the pump to the house should be at least 300mm below ground level. 50mm diameter polyethylene (‘poly’) pipe may be used. Use 50mm metric compression fittings for pipe and pump connections.
- Due to the radiant heat all above ground piping should be copper or galvanised steel.
- Copper is easier to work with than galvanised steel. Copper pipe joints can be made with compression fittings or silver-soldered joints. Be aware that ‘soft solder’ could fail in a fire due to its low melting point.
- To maintain water volume and pressure to all sprinkler heads the pipework should gradually decrease in diameter further from the pump.
- Consider fitting ball valves in order to redirect the water flow where it is needed at any one time. Using ball valves can also give you outlet points at which you can connect a hose to fight spot fires.