

Aussie Pumps

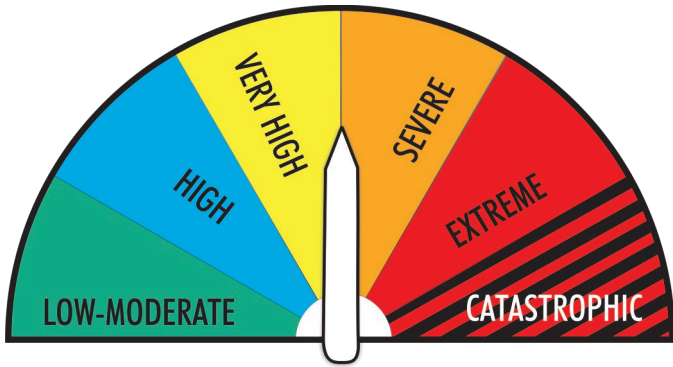
FREE



Aussie **FIRE SMART**

SURVIVAL PLAN

Australian Pump Industries



On days of catastrophic or extreme fire danger, even well prepared homes may not survive.

Leaving early is the safest option under these conditions.

If you decide to 'stay and defend' as part of your survival plan, your property must be suitably prepared. This requires planning and preparation, including the installation of reliable equipment and regular maintenance.

When bushfires threaten, you can protect your home if it has been well prepared!

Not all homes are defensible, and not everyone can cope with the stress of defending their own home.

This guide aims to give you information on setting up a fire protection system that will give you the best chance of defending your property.

However, lives are more important and you should consider your family circumstances before deciding on your own survival plan.

Essential requirements

- A property that is defensible in a bushfire
- An adequate water supply
- A quality, high performance fire pump

BE PREPARED

Even if you plan to leave, a well prepared home is more likely to survive a bushfire, is easier to defend & offers better protection if you are caught at home with no way of leaving.

The Aussie Fire Chief is the world's best portable fire pump



Get FIRE SMART Get an Aussie Fire Chief

FIGHT OR FLIGHT?

Some homes, due to their location, construction and design are not safe to defend.

Others are suitable and can be set up with an external sprinkler and fire pump system that can be used for protection from an ember attack or bushfire.

The key to the success of the plan lies with the pump.

Invest in a quality pump like the Aussie Fire Chief.

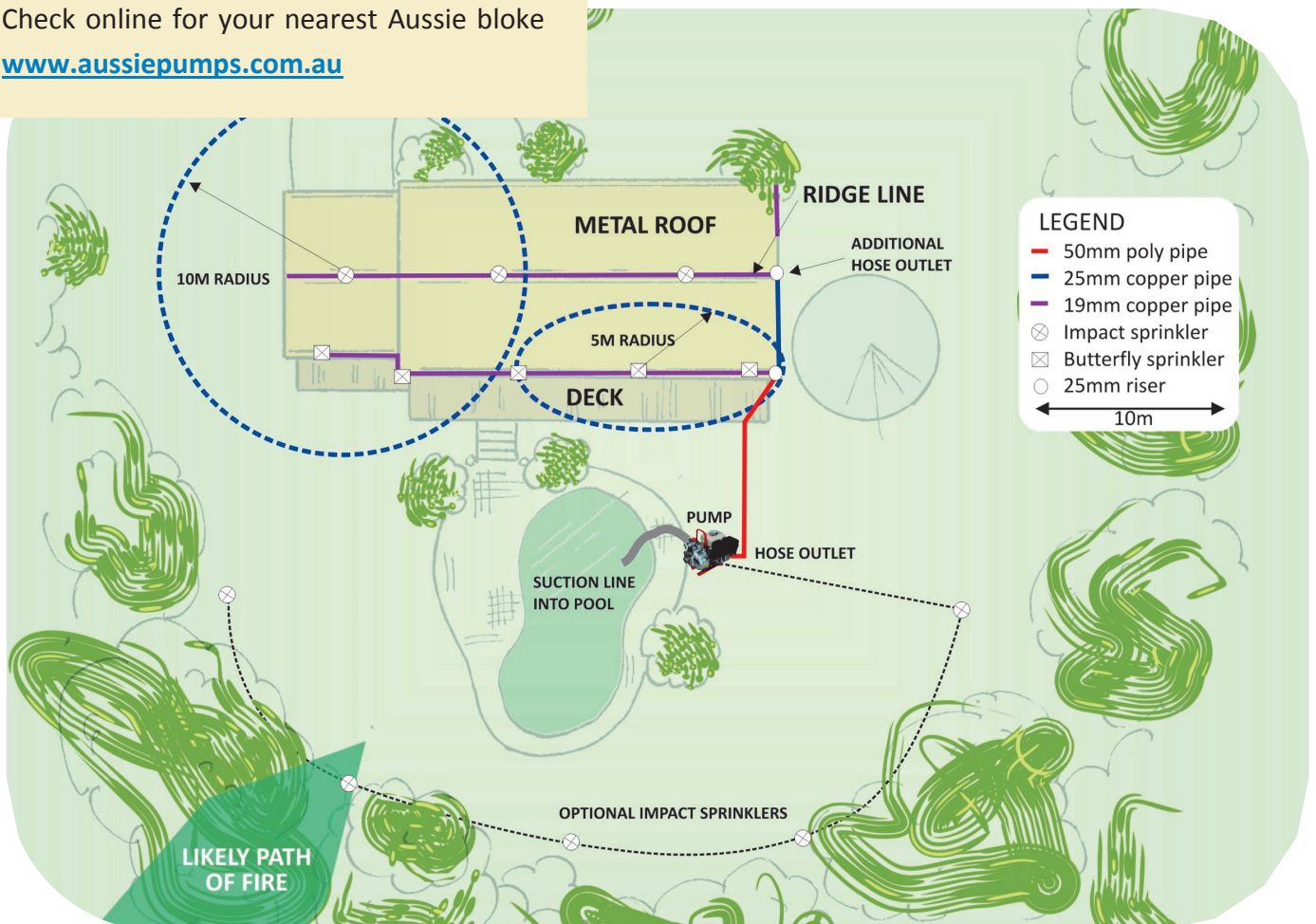
Take a scaled drawing of your property to an Aussie Pump shop. They will advise you on what you need for an external sprinkler and fire protection system.

Check online for your nearest Aussie bloke

www.aussiepumps.com.au

Before choosing a pump ask the following questions

1. Will the pump deliver enough pressure and flow to feed the sprinklers and a couple of fire hoses?
2. Will it draw water from the dam even when the level drops?
3. Will it prime fast ?
4. Will it start first time every time?
5. Should I choose a petrol or diesel powered pump?
6. What's the pump warranty and will I be able to get replacement parts?



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PROPERTY FIRE PROTECTION

LOCATION

Build your system around whatever water supply is readily available. This may be a swimming pool, pond, dam, well or tank.

Locate your Aussie high pressure fire pump close to the water source to minimise suction lift. Generally speaking, with any engine drive pump, the less suction lift the more pressure the pump will deliver.

Ensure your pump has sufficient capacity for the size of the job involved (see page 9, Pump Selection).

HOSES & NOZZLES

Make sure your firefighting hose is long enough to be able to cover the property. The Aussie Fire Chief fire pump has a three-way outlet to connect two 1" hoses with fire nozzles. The 1½" outlet should be used with a 1½" fire hose when maximum capacity is needed. It is not advisable to run all discharge ports simultaneously.

Please note, the pump's maximum capacity is approximately 400 litres per minute using the 1½" outlet. Using a 1" delivery hose, the pump will

deliver less water, i.e. around 150 litres per minute. Relate that flow rate to the size of water resource to determine how long you will be able to run your pump in an emergency.

BE READY

Always ensure your pump is primed and ready to go. The Aussie Fire Chief will vertically lift from depths of 7.6m. Priming is simple. Remove the priming plug on the top of the pump, fill the pump bowl with approximately a litre of water, replace priming plug and start the engine. Ensure suction hose has no air leaks at the coupling and make sure suction strainer is fully immersed.

RECIRCULATION OPTION

One of the 1" outlets on the top of the pump can be permanently plumbed into sprinklers mounted on the roof of the house and immediate area. In bushland settings this is a wise precaution but care should be taken to select a pump with sufficient capacity to run both a mop up hose and a roof mounted sprinkler system. Consult your local Aussie Pump Shop for technical guidance in setting up your system.



A petrol powered pump is more affordable, lighter & more portable

Aussie Fire Chief

Aussie Fire Captain Plus (Kubota Diesel)

Diesel drive pumps have lower running costs & are safer to refuel in a bushfire emergency

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IS YOUR PROPERTY PREPARED?

- ⇒ Ground fuels cleared around the house (long, dry grass, dead leaves and branches, thick undergrowth.) Take a trip to the tip!
- ⇒ Clear gutters & fit gutter guards.
- ⇒ Check roof is ember proof & ensure roofing is firmly fixed.
- ⇒ Check vents into roof space are screened with fine wire mesh.
- ⇒ Check condition of walls & cladding, seal any gaps.
- ⇒ Firebreaks prepared. A well watered lawn is a firebreak.
- ⇒ Plant fire resistant plants around your property. Remove vines & creepers from walls, cut back overhanging trees or shrubs.
- ⇒ Fit metal screens or shutters on windows and weather strips on doors.
- ⇒ Under-floor areas should be enclosed. If not, ensure access to put out spot fires.
- ⇒ Flammable items removed from around the house, e.g. woodpile & flammable materials such as newspapers, boxes, crates, hanging baskets, wooden garden furniture, door mats.
- ⇒ LPG gas tanks are vented away from house.
- ⇒ Emergency telephone numbers are at hand.

On days of catastrophic or extreme fire danger, even well prepared homes may not survive.

Leaving early is the safest option under these conditions.

WHAT EQUIPMENT IS NEEDED?

- ⇒ An engine drive fire pump, located close to water source, fuelled and primed with hoses connected. Remember that power to the home can fail before and during a bushfire. Do not rely on electric powered pumps.
- ⇒ Hoses long enough to reach all sides of house, attached to taps.
- ⇒ Reserve water supplies from tank, dam or swimming pool, if available. Mains water will be in high demand and the pressure will drop. Try to store water during winter months.
- ⇒ A sprinkler system in your garden and on the roof if possible.
- ⇒ Buckets (preferably metal), mops, spray backpack units, ladders, rakes and shovels. **Keep in one place** for ready access.
- ⇒ Battery operated radio and torches in case of electricity failure, & spare batteries.
- ⇒ Personal protective clothing (see page 12)



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EFFECTIVE SPRINKLER SYSTEMS

One of the best methods to protect your home is with a well thought out sprinkler system.

A sprinkler system is not stand alone protection but will additionally safeguard a well prepared property in conjunction with the methods outlined in this booklet.

A correctly designed sprinkler system will completely cover the house with water as well as dampen the surrounding vegetation. With an adequate water supply and a well chosen pump, it can be used to actively defend your property during a bushfire. Apart from sprinkler heads, firefighting hose outlets can also be incorporated into the system. Fire hoses can then be attached and used to put out spot fires **before they spread.**

When bushfire approaches your home it is important that you are as prepared as possible. Unless instructed to evacuate by Emergency Services, it is important that you remain on your property to start the sprinkler system and, if necessary, quench spot fires. The fire trucks will not always be around and you should plan to be self-reliant.

Computerised, automatic sprinkler systems often fail in a bushfire emergency because of the loss of power. If you have an existing system, consider installing a connection point for an engine drive fire pump as a back up.

When designing an effective sprinkler system consider the following . . .

You may need an independent water supply

- Mains water pressure is likely to be lost during bushfires due to excessive demand and loss of power. If a water supply independent of mains supply is available this should be used.

- Consider using your swimming pool, rainwater tank or dam. To be effective at least 22,000 litres of water should be available.

You need to ensure availability of your water supply

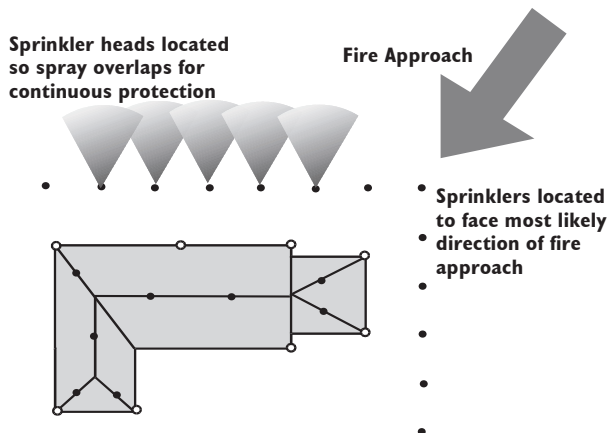
- For a gravity fed system, the water supply will need to be least 25 metres above the highest sprinkler. If your water supply is less than this you will need a pump such as the petrol or diesel powered **Aussie Fire Chief**.
- Power is likely to be cut during bushfires. It is unsafe to rely on an electric pump unless you have a generator. It is more reliable to use a petrol or diesel powered pump such as the **Aussie Fire Chief**.
- Locate the pump as close as possible to the water supply. Avoid placing the pump below the water level as the pump can create an airlock and cause pump priming problems.
- Use a 50mm flame-resistant suction hose with an end strainer. **Aussie Pumps** supply complete fire hose kits which include firefighting nozzles.
- Ensure your pump is protected from the weather and also from the fire.
- Your local **Aussie Pump shop** will be happy to advise you on the right pump for your needs.



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SPRINKLER SYSTEM INSTALLATION

You will need to determine the fire's most likely approach and position sprinklers accordingly



- Metal butterfly sprinklers (5m radius)
- Metal impact sprinklers (10 m radius)

- There are two types of suitable sprinklers available. Metal impact and butterfly sprinklers as used in irrigation systems are effective.
- The spray from the sprinkler heads should overlap the adjoining sprinklers to allow for wind and sprinkler blockages.
- Metal impact** sprinklers should be used on the ridge of the house. They can also be placed in the garden facing the direction from which bushfire is most likely to approach.



Metal impact sprinklers have a 10m radius and use 18 lit/min.

- Metal butterfly** sprinklers should be fixed to the eaves. The butterfly heads should spray in front of the windows, doors and walls.



Butterfly sprinklers cover a 5 metre radius and use about 12 litres of water per minute.

You will need to install correct piping to ensure pressure and volume of water

- Bury the pipe supplying water from the pump to the sprinkler system at least 375mm below ground. 50mm diameter polyethylene pipe (poly pipe) is suitable. You will need 50mm metric compression fittings for pipe and pump connections.
- Use copper pipe or galvanised steel for all exposed piping as it will withstand high temperatures and radiant heat. Copper is generally easier to install than galvanised steel.
- Be aware that 'soft soldered' joints could fail if exposed to high temperatures due to its low melting point. For copper pipes use compression fittings or silver soldered joints .
- The volume and pressure of water delivered to the sprinkler heads and hoses is determined by the diameter of the delivery pipes & pump size. Don't undersize hose or pipes as this will choke the pump.
- Install ball valves strategically to enable you to redirect water to areas where it is needed most. Hose connection points with ball valves along your supply lines will give you the ability to move your hoses closer to spot fires that need attention.

Remember to protect your pump from embers and heat



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FAMILY FIRE DRILL

You will need to test your system before and during the bushfire season

1. Insect nests, spider webs, dust, garden soil and even weeds can be a problem in sprinkler heads and regular flushing is necessary.
2. Well before the bushfire season test the pump and sprinklers.
3. From then on start the pump for one minute each week during the season to clear any accumulated debris.
4. If you depend on tank water it is 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.
5. If you are drawing water from a swimming pool, wash down the roof and house with town or tank water after testing your system. Otherwise staining or corrosion may occur. Flush out the pump too.



MAINTAINING YOUR PUMP

Regular maintenance will ensure that the pump will perform as required.

- ⇒ Check the engine oil level.
- ⇒ Ensure the air and oil filters are clean.
- ⇒ Flush out stale fuel.
- ⇒ Ensure the engine starts easily.
- ⇒ Check the condition of the suction and delivery hoses.
- ⇒ Ensure the pump is primed. A pump that sucks air won't prime.
- ⇒ Check pump for leaks and replace seals if necessary.
- ⇒ Check suction filter on supply hose if fitted.

Make sure everyone knows how to operate the system and use a fire pump



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AUSSIE PUMP SELECTION GUIDE

Check the table below to determine the right fire pump for you. If in doubt your Aussie Pump Shop will be happy to advise you. Pump performance parameters are easy to calculate and will ensure you get the protection your property needs.

Aussie self priming, centrifugal, firefighting pumps embody advantages in performance and features that make them the ideal home fire fighting choice. All Aussie QP fire fighting pumps come with a unique **FIVE YEAR WARRANTY**.

Aussie Ultralite (QP1 & QP154SX)

Low cost, lightweight, self-priming pumps producing up to 210 litres per minute flow and up to 100 psi pressure. Weights start from only 5.3kg so the pump can be moved easily in an emergency. Ideal for filling gutters or light mop-up firefighting duties. Pumps will run 1" high pressure hose assembly with firefighting nozzle.



Aussie diesel drive versions are also available Contact your Aussie Pump shop for details or check online.

Aussie Fire Chief & Fire Captain

Powered by either 5.5hp or 6.5hp engines, the Fire Chief & Fire Captain provide exceptional performance & use top quality components. Used by RFS & NSW National Parks and Wildlife Service, the Aussie Fire Chief is the choice of professional firefighters! Ideal for all household fire protection duties.



'Mr T' Twin Impeller

Designed for applications involving super high pressure and high flow requirements, the 'Mr T' fire pump will provide a high level of protection to large properties. With 150psi pressure and 500 litres per minute flow 'Mr T' twin impeller pump can run a series of sprinklers around or on top of the property and a fire fighting nozzle as well.

POWERED by **HONDA**



Model	Engine			HP	Max Head (m)	Max Flow (lpm)	Suct port	Discharge ports	Self primes to (m)
QP1	Robin	Petrol	ECO 25 (2 stroke)	1	42	110	1"	1"	7.5
QP105SX	Honda	Petrol	GXH50	2.5	60	110	1"	1"	8
QP154SX	Honda	Petrol	GXH50	2.5	60	210	1.5"	1.5"	8
*Fire Chief (QP205SE)	Honda	Petrol	GX160	5.5	75	450	2"	2x1", 1x1½"	7.6
*Fire Captain (QP205SEFF)	Honda	Petrol	GX160	5.5	75	450	2"	2x1", 1x1½"	7.6
*Fire Captain Plus (QP205SL)	Honda	Petrol	GX200	6.5	75	450	2"	2x1", 1x1½"	7.6
*Mr T Twin impeller	Honda	Petrol	GX270 or GX390	9, 13	95	480	2"	2x1", 1x1½"	7.6

*diesel drive and electric start options available

For more details check out Aussie QP Fire Pumps spec sheets on the website.

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Aussie Brigade Boss ... village fire protection pumps

If you have a dam or river to draw from, Aussie has 3" & 4" high pressure fire pumps for large fire protection systems. These pumps prime from 8 metres and deliver up to 1450 litres per minute and heads to 70 metres.



Model	Engine	HP	Max Head (m)	Max Flow (lpm)	Suction/ Discharge ports	Self primes to (m)
QP310SL	Honda	13	50	1200	3" x 3"	8m
QP402SL	Honda	13	50	1450	4" x 4"	8m
QP310SX	Honda	13	70	1050	3" x 3"	8m
QP402SX	Honda	13	70	1050	4" x 4"	8m



AUSSIE FIRE HOSE KITS

Select your firefighting hose kit with care. The hose kit needs to reflect the requirements of the job.

- Suction hose will reach to water source, even when the level drops.
- Strainer fitted to suction hose to prevent debris blocking pump impeller.
- Easy to use couplings.
- Hose lengths suitable to reach around your property.
- Hoses in A1 condition, leaks will cause pump problems.
- If using a 'sudden stop' gun, fit a pressure relief valve to the pump for spike protection.



Check your hose lengths ... Don't get caught short!



PUMP PROTECTION

Aussie pressure relief valve fits to priming port. Prevents pump damage in the event of a pressure spike.



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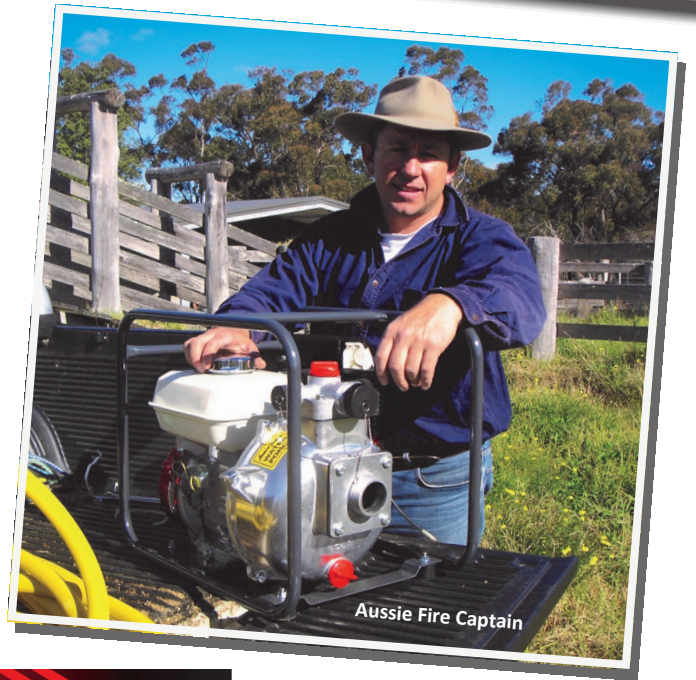
PREPARE > ACT > SURVIVE

Aussie FIRE SMART

WHAT ABOUT YOUR NEIGHBOURS?

Discuss your survival plan and protection system with neighbours. You may be able to pool resources, share ideas and assist each other in an emergency. If possible, consider running a fire drill together.

If you have a large area to cover or remote outhouses, consider setting up a mobile response unit. A water trailer with a fire pump fitted or even a tank and pump on the back of a ute, will enable you to move quickly across your property to areas at risk.



HONDA POWERED

Aussie Fire Chief

OUT PERFORMS AND OUT FEATURES ALL OTHERS

Why choose an Aussie Fire Chief?

- Delivers enough pressure and flow to feed sprinklers and a fire hose.
- Draws water from up to 7.6m
- Genuine Honda engine
- Primes fast
- Starts first time every time
- 5 year pump end warranty
- Excellent parts availability



Genuine Honda GX series 5.5HP

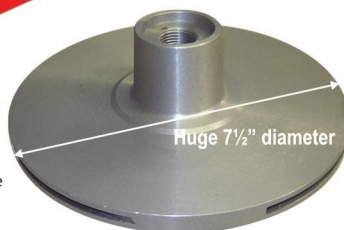
POWERED by HONDA
GX Engine 3 YEAR WARRANTY

Also available Diesel drive options
YANMAR
Kubota

Performance... QP205SE/GX160

Max flow 450 lpm
Max head 75m
5.5HP Honda GX series
Self primes FAST from 7.6m

The biggest impeller in the business - 2.5 times heavier than competitors ... more water & more pressure



5 year pump end warranty

Get FIRE SMART Get an Aussie Fire Chief

STAY & DEFEND

Only stay and defend if you & your property are fully prepared.

PERSONAL PROTECTION

- ⇒ Dress in protective clothing (made from cotton or wool, NOT synthetics)
- ⇒ Cover up ... wear a hat, long sleeved shirt & long pants for maximum coverage
- ⇒ Sturdy footwear & eye protection
- ⇒ A face mask or a damp cloth ready to cover your nose and mouth

DEFENDING YOUR PROPERTY

Before the fire arrives.....

- ⇒ Ensure water tanks and pools are full.
- ⇒ Ensure your pumps are fully fuelled, primed and start easily. Stow fuel safely.
- ⇒ Connect and test all fire hoses.
- ⇒ Dampen down vegetation around the perimeter of your home.
- ⇒ Activate the roof and garden irrigation systems.
- ⇒ Put on protective clothing & drink plenty of water.
- ⇒ Bring in pets and close all doors and windows.
- ⇒ Close all windows & doors. Block spaces under doors & windows with wet towels.
- ⇒ Fill buckets, baths and sinks with water to douse spot fires.
- ⇒ Block downpipes and fill gutters with water.
- ⇒ Bring in ladders so you can check your roof space for embers.
- ⇒ Stay informed using the radio.
- ⇒ Patrol outside putting out any spot fires.



Aussie Pumps acknowledges the assistance of NSW Rural Fire Service publications.

As the fire passes

- ⇒ Just before the fire front is about to pass, bring hoses and pumps under cover to protect them.
- ⇒ Go inside and shelter in the room furthest from the approaching fire. It will be dark, noisy & hot.
- ⇒ Check inside the house & roof space for embers
- ⇒ Protect yourself from the heat

In the hours after the fire has passed

- ⇒ Keep checking for embers in the roof space and under the house and decks, for up to 8 hours.
- ⇒ Put out any fires
- ⇒ Check on pets and animals

Further reading

NSW Bushfire Survival Plan ... www.rfs.nsw.gov.au

For more details on Aussie Pump products contact

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