BUSHFIRE RECOVERY VICTORIA

PLANNING PACK

for bushfire-affected Victorian households

A guide for your journey ahead

Introduction

Rebuilding after a bushfire is a big job. Everybody has different circumstances and will make different choices – and that's okay.

This information will help you make informed choices in planning, designing and commissioning your rebuild. It may also be useful if you want to know how to make existing buildings more resilient to bushfire.

It will help you understand the rebuilding process, including the sorts of building, design and other professional services that you are likely to need along the way, and help you think about how the rest of your site should be landscaped or managed.

The guide is general in nature and covers all the basics, but every site and rebuild is different. To make sure all your questions are answered, we recommend you make an appointment with the Rebuilding Support Services. You can find more information about this service on the following page.

Contents

Support for you

We want to make sure you have all the support and advice you need to help you make the best decisions and help you navigate the planning and rebuilding process.

Rebuilding Support Services

If you haven't done so already, please make an appointment with the Rebuilding Support Services. This is a free service operated by council and delivered by council and BRV.

Rebuilding Support officers are on hand to help you through every step of the process and ensure you have access to all the advice and support you need.

The Rebuild Support Service can be accessed by contacting:

- In East Gippsland Shire, visit www.eastgippsland.vic.gov.au/Bushfire_information, or call 5153 9500 and selecting 1
- In Towong Shire, visit www.towong.vic.gov.au (select 'Upper Murray Fires 2020') or call 1800 518 222

Through this service, delivered by council and Bushfire Recovery Victoria, property owners can get support to navigate planning and building permit processes, including:

- A copy of the completed preliminary bushfire hazard assessment – funded by the Victorian Government on behalf of property owners, saving them up to $3000
- Access to planners, environmental health officers and building surveyors to assist with technical advice to support the permit application process
- More than $20,000 in rebates for other essential assessments and infrastructure required as part of the rebuilding process, such as soil tests, geotechnical risk assessments, land capability (wastewater) assessments, and installation of septic tanks and new rainwater tanks.

You can also visit or contact your local BRV or council Recovery Hub.

Case Support Program

Starting this journey can be difficult, so you can also check in with your Victorian Bushfires Case Support worker or contact the Case Support Program by calling 1800 560 760. This service can connect you to any personal support you may need.

The steps in short

The concept phase

Your site is cleaned up. Hazardous materials are removed. Now you can assess your site properly and start making your plans.

These are just some of the questions and issues you'll be dealing with in this phase:

- The location of your home on your site
- The design of your home and its construction method
- Your budget for design and construction
- How to make your home more resilient to bushfire
- Meeting the construction requirements for bushfire-prone areas
- Landscaping features on your site
- Engaging the skills of experts: e.g. builders and architects

It's worthwhile to engage with council early on, even before you submit your documentation, to understand what you'll need for the job ahead. You can do this with assistance from Rebuilding Support Services.

At the end of this process, you'll be able to produce a concept plan for your whole site. This plan will give you confidence that you have identified all the main elements you need to make it all work and you are clear about what information you need to move to the next phase: planning and building permits.

The permit phase

The need to obtain planning and building permits is an important step. They are essential for financing and if you ever seek to sell the property – either with an approved permit, or after the development is completed with a certificate of occupancy.

Most importantly, they give you the green light to go ahead with your rebuild. In this stage, you'll need to:

- Develop detailed plans of what you intend to build and finalise other supporting information to seek permits and approvals.
- Lodge applications for planning, building and any other approvals that may be required.
- Obtain final quotations, contract a registered builder, appoint a building surveyor, and engage any other specialists if required.
- Seek legal advice on contracts if you are unsure. Read the information at www.building.vic.gov.au in relation to quotations, contracts and consumer protection.

The construction phase

This stage explains itself – but there are still several steps you need to undertake while the house gets built. These include:

- Mandatory construction inspections at key stages of the build.
- Implementing any other bushfire risk mitigation measures or conditions that are part of your planning and building permits (for example, firefighting water supply tanks).
- Obtaining occupancy permits through your building surveyor.

The completion phase

It's time to move into your new home. Here are the things you'll be managing once you occupy the building:

- Landscaping and other site management tasks, such as ensuring your defendable space is maintained.
- Implementing any other bushfire risk mitigation measures that formed part of your application
- Checking to ensure that any future works do not undo the effort put into creating a more bushfire resilient house – e.g. do not locate flammable things near the house or create holes that allow embers to get into the house.
- Reviewing, updating and maintaining your fire preparation plan and your bushfire survival plan.

Building design and resilience

House designs can be simple or complex, and all can be designed to be energy efficient and fire resilient. But there are benefits in adopting simple designs, thinking carefully about how and where windows and other glass are used, and making the most of your site's natural advantages.

Design and resilience

Simple shapes are best as they allow the smoothest flow of wind over and around the house. This minimises the build-up of embers in corners where they are at greater risk of causing ignition.

Try and minimise open, exposed gutters that retain leaf litter. Box gutters should also be avoided. Avoid putting features on roofs that can trap embers.

More tips for resilience include:

- Building on a slab. If not, implement a fully enclosed underfloor
- Using non-combustible facades, cladding, windows, doors
- Locating windows up off the ground
- Using paved areas rather than decks
- Single story is preferable

You can find more tips and resources for building resilience in the Key Links section of this guide.

Energy efficiency

Any new residential building will need to embrace energy efficiency in its design as a key requirement of the National Construction Code.

Energy-efficient designs are well insulated and assembled to minimise uncontrolled air leakage through the structure, and they utilise natural airflow to moderate indoor temperatures. These solutions mean lower maintenance and higher bushfire resilience.

Ideally houses should be sited away from vegetation and be oriented on a block to face North to make to most of good natural lighting and solar energy for winter warmth.

Building location

Siting a building or settlement away from the bushfire hazard is the most effective way to minimise bushfire risk. Ideally, development should be sited on flat land away from unmanaged vegetation and close to public roads.

To make decisions about the location of your building, you should:

- consider slope, access, aspect, orientation and vegetation
- avoid and minimise the removal of vegetation
- site new buildings as far from the bushfire hazard as practicable
- minimise the need for long access and exit routes through areas of bushfire hazard
- locate buildings as close as practicable to property entrances
- provide safe access and exit for emergency services

You can find more tips and resources for 'siting' your building in the Key Links section of this guide.

Building structure

There are two approaches to construction: traditional or prefab/modular.

Traditional construction

The traditional approach is for a structure to be erected on the development site from the ground up, using timber or steel framing with brick or other suitable external cladding, or solid brick or concrete walls. Depending on the site conditions, concrete slabs, or sub floors on posts or other foundations, are all possible.

Steel framed construction is an alternative to timber framed construction. There are specific standards for steel-framed construction in bushfire-prone areas with some advantages due to the non-flammability of steel framing and resistance to termite attack.

Prefab/modular construction

In modular construction, preparation of the prefabricated elements can proceed in a factory setting while site preparation and footings are prepared on-site. There is potential time saving because both parts of the build process can occur simultaneously and preparation of modular units in a factory is not impacted by weather.

Site access for potentially large premade components, trucks and crane access will be an important consideration that should be addressed in the conceptual and planning phase. Consider the route that delivery trucks will take including road and bridge widths and load capacity.

Builders and designers can provide advice on what approach to general construction makes the best overall sense and is the most practical, efficient, resilient and cost-effective for your site.

Bushfire Attack Level (BAL):

In addition to energy efficiency and overall structural soundness, construction requirements in bushfire-prone areas are determined based on the bushfire attack level that is likely.

The BAL is a nationwide approach to determine the severity of a building's potential exposure to ember attack, radiant heat and direct flame contact.

Designing and building houses that are resistant to ember attack is fundamental to bushfire resilience.

The BAL is measured using levels of radiant heat, expressed in kilowatts per square metre. To put it more simply: the higher the number, the more severe the potential exposure.

The BAL is based on:

- **Your location**. This will include how many directions a bushfire may approach from as well as road access in and out of the property.
- **The type of vegetation on your property**. There is no such thing as fireproof vegetation as it can all burn in extreme fire conditions. The denser the vegetation, the more intense the fire zone is. If there is a mixture of trees, shrubs, grasses and leaf litter, this can have a kindling effect allowing the fire to build.
- **How far your house is from vegetation**. The closer the property is to vegetation, the higher the fire risk. Research into Australian bushfires has indicated that around 85 per cent of house destruction happens within 100 metres of bushland.
- **The slope of your property**. The topography affects the speed and spread of a fire. Fires burn faster uphill. The steeper the slope, the quicker the fire. When moving upslope, the fire dries out the vegetation ahead making it easier to burn. This is often a challenge, as some with to site a home at the top of a slope to maximise views.

How a BAL result is classified

There are six BAL classifications which form part of the Australian Standard for construction of buildings in bushfire-prone areas. The classifications indicate the materials and construction methods you'll be required to use in your build. The six classifications are:

- **BAL low:** Insufficient risk to warrant construction requirements – very low risk
- **BAL 12.5:** Ember attack – low risk
- **BAL 19:** Increasing levels of ember attack and burning debris along with exposure to a heat flux of up to 19kW/m^2
- **BAL 29:** Increasing levels of ember attack and burning debris along with increasing exposure to a heat flux of up to 29kW/m^2
- **BAL 40:** Increasing levels of ember attack and burning debris along with increasing heat flux of up to 40kW/m^2 and increased likelihood of exposure to flames

- **BAL FZ:** Ember attack and direct exposure to flames from the fire front in addition to a heat flux of greater than 40kw/m^2.

Getting your BAL assessment

Bushfire Recovery Victoria has worked with councils and the Country Fire Authority (CFA) to prepare preliminary bushfire hazard assessments for all properties with destroyed houses. This has saved individual landowners between $1000-$3000.

The preliminary assessment will identify a proposed BAL along with any other bushfire protection measures. These reports can be used by landowners for both planning and building permit applications.

You can obtain a copy of your assessment by making an appointment with the Rebuilding Support Services.

What does a BAL mean for construction?

As BAL ratings increase, the use of non-flammable materials and methods of construction becomes more important.

Many locations have lower BAL ratings (BAL 19 or 12.5 for example) but there are benefits in deciding to construct to a higher BAL level, such as BAL 29. It will make your building more resilient.

Ember risk: Embers can enter through gaps as small as two millimetres. It's important that the products and materials used are high quality so there are no gaps or holes left through which embers can enter the roof space, walls or underfloor. At higher BAL ratings, both the underside of the roof as well as above the ceiling should be covered and sealed with non-flammable insulating blankets to minimise ember entry.

Glass and windows: Glass and windows become more expensive at higher BAL ratings (e.g. BAL 40 & BAL FZ), so think carefully during the design phase about where glass is going and whether you use window fire shutters.

Materials: Manufacturers have developed a wide variety of building materials, products and systems of construction that are suited to building in bushfire prone areas. Your design team or builder can recommend products that best suit your needs.

Some common materials used for external cladding or primary construction include corrugated and other steel profiles, fibre cement sheet or moulded panels of the correct thickness, brick, cement, rammed earth, and some timbers in lower BAL categories. Fire resistant sarking, roof and wall insulation products and sealants are also available.

Piping: Plastic pipe may be exposed to heat and melt creating an entry point for embers. The construction standards regulate these materials at higher BAL levels.

Sprinklers: Fire sprinkler systems can be considered, but they do not replace the need for the basic construction to be suited to the level of bushfire risk. This is particularly the case for a new build where

eliminating combustible materials from the exterior of the building will generally be more effective and cheaper than a sprinkler system.

There are a range of bushfire sprinkler systems that can be designed into the roof construction or retrofitted to an existing structure. Avoid any designs that can trap embers and other materials on the roof.

Shelters: Victorian planning and building requirements also allow landowners to construct a private bushfire shelter or bunker. The installation of a private bushfire shelter does not remove the need for the house to comply with all the other planning and building requirements.

Costs: At lower BAL ratings, there are no fundamental changes for materials and construction methods that go over and above a typical building project.

At higher BAL ratings (40 and FZ), glazing costs increase, as do costs if shutters or other methods are implemented. Siting your structure to achieve a lower BAL exposure can have a big impact on costs for windows and glazing.

Key building changes

The below table indicates key building changes as exposure to bushfire attack increases.

<table>
<tr><th></th><th colspan="2">BAL - 12.5</th><th>BAL - 19</th><th>BAL - 29</th><th>BAL - 40</th><th>BAL – FZ</th></tr>
<tr><td>Subfloor Supports</td><td colspan="3">No general construction requirements.</td><td>Enclosure by external wall, non-combustible supports where the subfloor is unenclosed, naturally fire-resistant timber stumps.</td><td>Enclosure by external wall - refer below ‘External Walls’ section in table - or non-combustible subfloor supports.</td><td>Enclosure by external wall or non-combustible with an FRL of 30/-/-.</td></tr>
<tr><td>Floors</td><td colspan="3">No general construction requirements.</td><td>Concrete slab or enclosure by external wall or non-combustible flooring or naturally fire-resistant timber or wool insulation.</td><td>Concrete slab or enclosure by external wall or non-combustible material such as fibre cement sheet.</td><td>Concrete slab or enclosure by external wall or an FRL of 30/30/30.</td></tr>
<tr><td>External Walls</td><td colspan="3">Walls less than 400 mm from ground or decks to be of non-combustible material, 6mm fibre cement cladding or bushfire resistant timber.</td><td>Non-combustible material (masonry, brick veneer, concrete) or steel framed walls sarked on the outside and clad with 6mm fibre cement sheeting.</td><td>Non-combustible material (masonry, brick veneer, concrete) or steel framed walls sarked on the outside and clad with 9mm fibre cement sheeting.</td><td>Non-combustible material (masonry, brick veneer, concrete) with minimum thickness of 90mm or FRL of -/30/30.</td></tr>
<tr><td>External Windows</td><td colspan="2">Bushfire shutter or 4mm toughened glass. Metal frame or</td><td colspan="2">Bushfire shutter or 5mm toughened glass. Metal screening with frame of metal or bushfire resisting timber.</td><td>Bushfire shutter or 5mm toughened glass.</td><td>Bushfire shutter or FRL of -/30/- Steel or bronze screening.</td></tr>
</table>

	bushfire resisting timber.			
External Doors	As for BAL–19 except that framing can be naturally fire-resistant timber.	Bushfire shutter or screened with steel mesh or non-combustible or metal or bushfire resisting timber frame.	Bushfire shutter or non-combustible or 35 mm solid timber, metal framed tight-fitting with weather strips at base.	Bushfire shutter or tight-fitting with weather strips at base FRL of -/30/-.
Roofs	Non-combustible covering. Openings fitted with non-combustible ember guards. Roof to be fully sarked.		As for BAL 29 requirements. No mounted evaporative coolers	Roof with FRL of 30/30/30 or tested for bushfire resistance. No mounted evaporative coolers
Verandas Decks	Enclosed sub-floor space – no general requirement. No special requirements for supports or framing. Decking to be non-combustible or bushfire resistant near windows only.	Enclosed sub-floor space or non-combustible or bushfire resistant timber supports. Decking to be non-combustible or bushfire-resisting timber	Enclosed sub-floor space or non-combustible supports. Decking to have no gaps and be non-combustible.	

Note: Fire Resistance Level (FRL) is the period, in minutes, that a building element will maintain structural adequacy/integrity/insulation during a fire.

Landscaping and site treatments

While the house and any other main structures will require planning and building permits and must be built in accordance with the National Construction Code, general landscaping and other treatments that landholders undertake overtime generally do not need approval.

In areas exposed to bushfire risk, it is important to think about what is put into garden landscaping or near the house to avoid creating a potential risk to your house. Some tips include:

- Position gas bottles away from the main structure where they can be suitably restrained. Ensure that gas bottles vent away from structures into clear air and do not hinder your main movement or escape routes.
- Use plants and landscaping that are sensible in fire risk areas – see the CFA landscaping guide at www.cfa.vic.gov.au.
- Consider what materials you use for landscape features. If possible, use non-combustible materials such as stone, concrete or masonry or more resilient native timbers.
- Consider use of non-flammable materials in waste treatment beds if you need to create them on steeper slopes.
- Avoid the use of flammable materials close to the house. For example, treated pine steps can ignite doors.
- Avoid storing flammable things under houses.
- Think about how septic tank effluent can be used to sustain a green break around structures.
- Remember to only use metal pipes and fittings for all water systems above ground. A melted plastic pipe at the bottom of the hill can let all your firefighting water escape and will not comply with CFA requirements.

Specialist skills

Don't underestimate the effort required to project manage a build yourself. It's a big job.

At a minimum, you will need a registered builder or be an approved owner builder.

You will also need to appoint a registered building surveyor who will ensure that key stages of the rebuild are inspected at appropriate times and meet standards, and registered plumbers and electricians to complete and certify works (these can be subcontracted by the builder).

The key skills that you may need to engage include:

Registered building practitioner

If you are rebuilding a house, you'll need to use a registered building practitioner if the value of the work is more than $10,000. You can check if a building practitioner or company is registered using the Victorian Building Authority's portal at www.vba.vic.gov.au.

Many architects and building designers have developed a range of built dwellings that are designed for all BAL types, and many builders now have experience in construction methods and outcomes required in bushfire resilient construction.

You engage your builder using a building contract. We recommend you visit www.building.vic.gov.au for information in relation to building, builders, quotations, contracts and consumer protection. You are making a significant investment and should be aware of your rights and obligations.

Alternatively, you may wish to carry out the domestic building work as an owner-builder, where you will be responsible for carrying out the work on your own land. If the value of the domestic building work you will be doing is over $16,000, you will need to obtain a certificate of consent from the Victorian Building Authority to be an owner-builder.

A registered building surveyor

Building surveyors must be appointed by the property owner or their agent. They issue building permits and by law is required to act to ensure any building works meet the requirements of the National Construction Code and other laws. More information about building surveyors can be found later in this guide, under *Building permits*.

A qualified architect or building designer

These experts bring practical design skills to create plans for a site or dwelling that optimise sustainability, comfort and resilience to hazards. They can also act as a project manager to manage an overall building project.

Engineering advice

Specialist advice and soil testing may be required, particularly in steep or complex sites, to inform the design of footings for a building or the capability of land to absorb effluent on site.

Fire consultants

Fire consultants can provide assessment of likely bushfire risk, undertake Bushfire Attack Level assessments, inform your siting and design choices, and give specialist advice in relation to bushfire bunkers and roof sprinkler systems.

A registered plumber or electrician

Engaged as part of a total rebuild or to repair and re-establish plumbing or electrical system on a property.

Planning permits

In most cases, your rebuild will require a planning permit.

Before submitting your application

- Engage early with your council to determine what approvals you need and determine whether you will seek professional assistance to prepare your application and supporting paperwork.
- Talk to your neighbours before finalising your plans. If they are unhappy with an aspect of your proposal, you may be able to reach a compromise before lodging your application.
- Based on your concept, develop a site plan. This is the plan of where you want to rebuild your house and sheds. On the plan, show building outlines and distance from property boundaries. You can make this plan yourself or you can engage a professional (e.g. draftsperson or architect).
- Meet with Rebuilding Support Services for assistance in preparing your application.

Application checklist

Requirements for an application will vary council-by-council but generally contain the following information. This is a general list. Depending on the nature of the application, additional information may be requested. To make a planning permit application, you will require the following information:

- ☐ Completed application form
  - Rebuilding Support Services can assist you to include a cover letter briefly explaining your proposal.
- ☐ Recent Certificate of Title. Council will provide these free to bushfire-affected residents in East Gippsland, Towong and Alpine Shires.
- ☐ A final version of your site plan. Plans must be drawn to scale and fully dimensioned. Plans need to show the site, floor layout and elevations, clearly showing building height above natural ground level, floor/roof levels that relate to the site contours and building materials.

The following may also be required depending on your situation:

- ☐ **Land survey** showing features such as contours, location of structures and vegetation on your land, setbacks, and land features between the site and the road. A land survey must be completed by a land surveyor.
- ☐ **Bushfire Management Plan**
- ☐ **Land Capability Assessment** for properties connected to a septic system.
- ☐ **Geotechnical and Landslide Risk Assessment** for properties with landslip and erosion risk
- ☐ For residential properties in settlements, a response to the decision guidelines and description of how the development responds to the Clause 54 'Rescode' standards. A rebuilding professional can assist with this.
- ☐ Application fee (note: application fees have been waived for bushfire-affected residents in East Gippsland, Towong and Alpine Shires)

You can find more information about the items in bold in the *Factsheets* section of this guide.

Building permits

To build any structure, you will need to obtain a building permit. To apply for a building permit, you need to appoint a building surveyor – the permits are managed through them.

Building surveyors

The role of the building surveyor is to ensure that your building is being built correctly. Building surveyors are professionals trained in understanding the building process. They are responsible for issuing building permits, carrying out mandatory inspections during the build process and having the authority to take enforcement action to ensure building work complies with regulatory requirements and standards.

You will need to appoint a building surveyor for any project that requires a building permit. So the surveying process remains independent, the builder can't appoint the building surveyor.

In your building permit, your building surveyor will:

- Specify the mandatory inspections that will be required throughout the course of the building work
- provide certificate of a final inspection and certificate of occupancy on completion of the building work.

A registered building surveyor is authorised to:

- assess building permit applications for compliance with laws and construction codes
- issue building and occupancy permits, and certificates of final inspection
- conduct building inspections at the mandatory notification stages
- give directions to fix non-compliant building work
- serve building notices and orders.

Applying for a building permit

To apply for a building permit with your building surveyor, you will need to:

- provide copies of drawings, specifications and allotment plans, along with the completed application form and other prescribed information
- pay the building permit levy yourself fee (note: fee has been waived for bushfire-affected residents in East Gippsland, Towong and Alpine Shires)

Factsheet: Bushfire management plans

A Bushfire Management Plan is a document that shows where the dwelling is on the site and must clearly show that all of the requirements of the bushfire management overlay have been met. These requirements relate to:

- defendable space – where it is and how it will be managed in future
- construction standard – what Bushfire attack level is required
- water supply – how much water must be stored on site for firefighting purposes, where the tank will be located, and any fittings required for CFA to use
- access – design standards for emergency vehicle to access the site.

Once a planning permit is issued, this plan will be endorsed and will become a legal document.

How to make a bushfire management plan

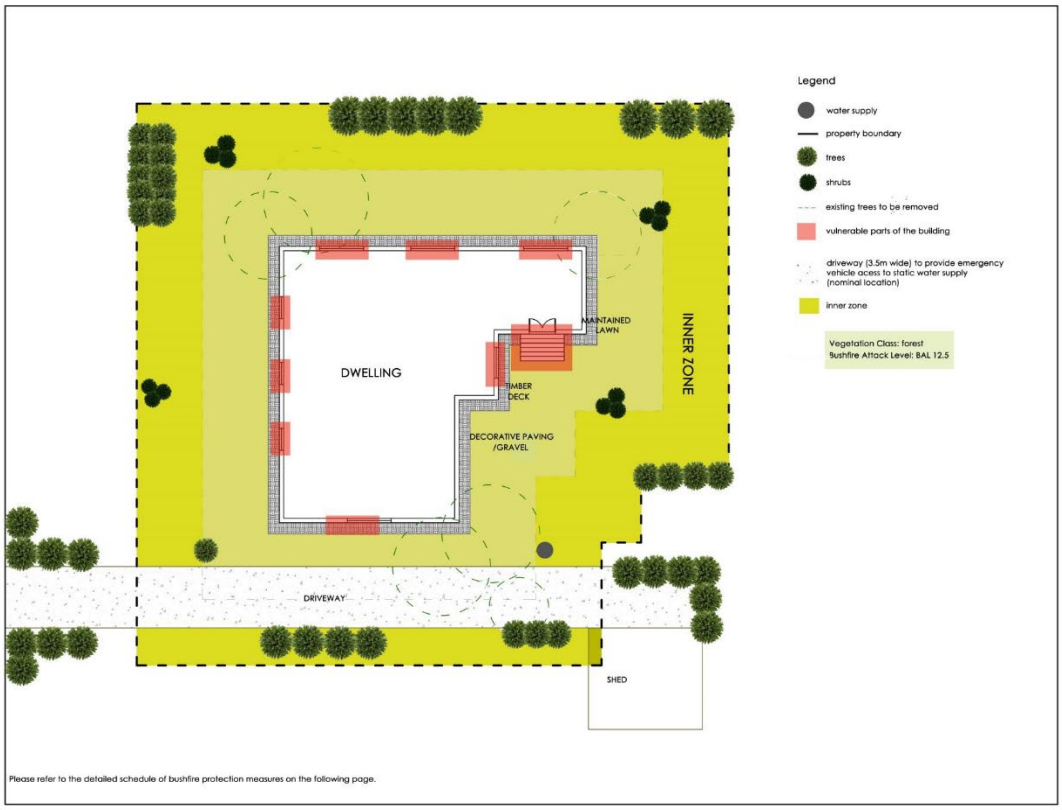
The preliminary bushfire hazard site assessment will provide you with relevant information to inform planning and building permits. This is available through the Rebuilding Support Service.

With the assessment provided, you can complete a template available at www.planning.vic.gov.au to create your bushfire management plan. You can do this yourself, with the support of the rebuilding support service or engage a bushfire planning consultant to assist you.

While this information may be enough to rebuild homes in existing settlements, some sites have extreme bushfire hazards that may require further detailed assessments. For further assessments, an accredited bushfire planning consultant will be required.

If you'd like to site the dwelling in a different location to the bushfire hazard site assessment provided, you will need to engage an accredited bushfire planning consultant.

Example of a bushfire management plan



Defendable space management

- Grass will be short cropped and maintained during the declared fire danger period.
- All leaves and vegetation debris will be removed at regular intervals during the declared fire danger period.
- Within 10 metres of a building, flammable objects will not be located close to the vulnerable parts of the building.
- Plants greater than 10 centimetres in height will not be placed within 3m of a window or glass feature of the building.
- Shrubs will not be located under the canopy of trees.
- Individual and clumps of shrubs will not exceed 5 sq. metres in area and must be separated by at least 5 metres.
- Trees will not overhang or touch any elements of the building.
- The canopy of trees will be separated by at least 5 metres.
- There will be a clearance of at least 2 metres between the lowest tree branches and ground level.

Water supply for fire fighting purposes

Show **10,000L** of effective water supply for fire fighting purposes which will meet the following requirements:

- Is stored in an above ground water tank constructed of concrete or metal.
- All fixed above-ground water pipes and fittings required for fire fighting purposes must be made of corrosive resistant metal.
- Incorporate a ball or gate valve (British Standard Pipe (BSP) 65mm and coupling (64mm CFA 3 thread per inch male fitting).
- The outlet of the water tank will be within 4m of the accessway and be unobstructed.
- Be readily identifiable from the building or appropriate identification signage to the satisfaction of the CFA must be provided.
- Any pipework and fittings will be a minimum of 65mm (excluding the CFA coupling).

Access designed to accommodate CFA access

- Curves will have a minimum inner radius of 10m.
- The average grade will be no more than 1 in 7 (14.4 per cent) (8.1 degrees) with a maximum of no more than 1 in 5 (20 per cent) (11.3 degrees) for no more than 50m.
- Dips will have no more than a 1 in 8 (12.5 per cent) (7.1 degrees) entry and exit angle.
- Will have a minimum trafficable width of 3.5m and be clear of encroachments for at least 0.5m on each side and 4m above the accessway.
- Will be clear of encroachments for at least 0.5m on each side and 4m above the accessway.

Construction

Will have a minimum Bushfire Attack Level of **BAL – 19** that the building will be designed and constructed to in accordance with AS3959.

Factsheet: Land surveys

Only licenced land surveyors are authorised to perform land surveys (also known as site surveys.)

Land surveying helps determine the positions of property boundaries and other site characteristics including features and contours. Land surveys address:

- Existing site & flood levels
- Engineering and civil works
- Easement dealings
- Digital feature, level and contour surveys

If you are uncertain about what your surveying needs are or would like to arrange a survey of your property boundaries, make a time with Rebuilding Support Services.

Title boundary re-establishment

Following a bushfire, where boundary fences may have been destroyed, it is important that title boundaries of properties be re-established and marked on the ground by a licensed land surveyor prior to buildings and works occurring.

Only licensed land surveyors are authorised to perform title boundary surveys.

The Office of Surveyor-General Victoria (SGV) is coordinating the Victorian surveying response to the 2019-20 Victorian Bushfires.

Surveyors from SGV have visited the fire affected townships in Gippsland and North-East Victoria to recover and preserve survey data used to re-establish title boundaries and provide site levels.

SGV is also working with public land managers who are responsible for repairs to damaged or destroyed fences between private properties and public land including National Parks, State Parks and State Forests.

Factsheet: Geotechnical and landslide risk assessments

Note: See more information at www.melbournewater.com.au/RaSTRprogram.

Bushfires have a significant impact on the landscape due to the loss of vegetation by the fire and clearing of vegetation during clean-up. This can increase the risk of landslips and accelerate soil erosion causing sediment runoff into creeks, wetlands and reservoirs. This erosion can cause drainage issues and have a significant impact on water quality in waterways and catchments.

East Gippsland Shire

Many rural properties in the fire affected areas of East Gippsland Shire are on land subject to the Erosion Management Overlay (EMO).

These properties may require a geotechnical assessment to support the planning permit application to build, construct or carry out works including vegetation removal and earthworks.

The assessment determines how to manage erosion and landslip risk through siting and design of dwellings, associated landscaping and erosion management controls.

Towong Shire

Towong Shire is susceptible to moderate wind, sheet, rill, gully and tunnel erosion. Most of the fire affected areas are on steep land that require development to assess site characteristics and environmental conditions.

Properties with a slope of land greater than 20 degrees require geotechnical assessments to support planning permit applications.

These assessments have similar requirements to the Erosion Management Overlay including assessing siting, limiting earthworks and avoiding removal of vegetation.

Getting your geotechnical and landslide risk assessment

A geotechnical assessment must be conducted by a suitably qualified geotechnical consultant.

You can get financial support for this assessment.

What support will I get?

The Geotechnical Rebate Assessment Program will provide support for required geotechnical assessments prepared by a geotechnical consultant to satisfy the requirements of the:

- Erosion Management Overlay within the East Gippsland Planning Scheme, to the satisfaction of the East Gippsland Shire Council, or
- Steep Land local policy of the Towong Planning Scheme. to the satisfaction of the Towong Shire Council.
- A standard soil report to support an application for a Building Permit.

The program will provide up to eighty percent of the cost of:

- A standard soil report to support an application for a Building Permit, up to a maximum of $400

- A full geotechnical assessment, to satisfy the requirements of either:
    - The Erosion Management Overlay in the East Gippsland Planning Scheme to the satisfaction of the East Gippsland Shire Council, up to a maximum of $2,000, or
    - The Steep Land local policy of the Towong Planning Scheme for a proposed building site with a slope of 20% or greater, to the satisfaction of the Towong Shire Council, up to a maximum of $2,000.

Who can apply

To be eligible to apply for funding:

- You must be the landowner or have the written permission of the landowner to apply
- Buildings on the property must have been damaged from direct impacts of bushfire, as verified through the bushfire recovery clean-up process
- The geotechnical assessment must be conducted by a suitably qualified geotechnical consultant to the satisfaction of the local council
- The assessment must be required to satisfy the requirements of the Erosion Management Overlay in the East Gippsland Planning Scheme or the Steep Land local planning policy in the Towong Planning Scheme
- The property is in the municipality of East Gippsland or Towong
- You must be intending to rebuild in the same Local Government Area

How to apply

You can apply online at Melbourne Water's webpage www.melbournewater.com.au/RaSTRprogram.

Make sure you have copies of the supporting information needed to be submitted with your application as outlined in section 2 above.

Before applying, please read and understand the program guidelines, the application form and any other information that may be relevant to your situation.

If you have any extenuating circumstances that have caused unforeseen costs or have impacted your eligibility, please contact Melbourne Water to discuss your application.

Factsheet: Land capability assessments (for wastewater)

To determine the appropriate on-site domestic wastewater solution a Land Capability Assessment is required.

This assessment is required as part of a Septic Tank System Permit Application.

The assessment identifies building and development constraints including soil types, drainage lines, land slope, proximity to waterbodies as well as other relevant landscape concerns.

This will provide landholders and their architects, designers, engineers, insurers and builders with preliminary advice and options to guide the design and siting of a house. This is important work to ensure the protection of human health and the environment.

Getting your land capability assessment

A land capability assessment must be conducted by an appropriately qualified and experienced professional in the environmental, geotechnical, soil science and/or wastewater consulting field.

You can get financial support for this assessment as part of the Rainwater and Septic Tanks Replacement Program.

Please see the *Rainwater and Septic Tanks* section below in this guide for more information.

Factsheet: Rainwater and Septic Tank Replacement Program

Note: See more information at www.melbournewater.com.au/RaSTRprogram.

The Rainwater and Septic Tank Replacement Program will support households that have lost or significantly damaged rainwater and/or septic tanks on their primary place of residence as a result of the 2019/20 Bushfires.

Support under the program will be available for any work completed since the commencement of the bushfires on 21 November 2019.

The support will be provided as a rebate payment to eligible applicants.

The rebate allows for eligible households to reclaim expenses accrued, on proof of receipt, for the replacement of their primary use rainwater and/or septic tank.

The applicant will be required to source their own local suppliers and rainwater/septic tank systems and demonstrate that they meet the eligibility requirements during the application process.

What support can I get

The Rainwater and Septic Tank Replacement Program will provide support for:

- Up to half the cost of:
  - the purchase and installation of a new primary use rainwater tank system to residents rebuilding homes, up to a maximum of $3,000.
  - the purchase and installation of a new primary use septic tank system to residents rebuilding homes, up to a maximum of $15,000.
- The full cost of:
  - the initial refill of the rainwater tank specifically installed as part of this program, up to a maximum cap of $500.
  - any combination of assessments required to get council approval to install or alter a septic system including condition reports undertaken by a qualified plumber and Land Capability Assessments, up to a maximum of $1,500.
  - any minor repairs or reconnections required if the tank systems are undamaged and comply with current standards, up to a maximum of $2,500.

The program will also cover relevant associated costs including the purchase of rainwater or septic tank system, associated plumbing and materials connected to system, installation costs and delivery charges – up to the maximum outlined below.

The maximum support available to successful applicants per household will be:

- $15,000 for septic systems
- $3,000 for rainwater tanks
- $1,500 for essential assessments including condition reports and Land Capability Assessments
- $500 for the initial refill of the rainwater tank
- $2,500 for the cost for any minor repairs or reconnections required if the tank systems are undamaged.

Who can apply

To be eligible to apply for funding, you must be the owner of a home that:

- Is your principal place of residence
- The damage to the home, primary rainwater and/or primary septic system was directly caused bushfire, as verified through the bushfire recovery clean-up process
- Not on a reticulated system and requires a rainwater/septic system for primary use
- Intending to rebuild your home on the same property or in the same local government region and require rainwater and/or septic tank installations, repairs or reconnections
- You have sought funds through any available insurance arrangements prior to seeking assistance from this program.

In addition, to be eligible for support you must:

- Ensure all rainwater and/or septic tanks are designed, manufactured and certified to the relevant Australian Standards and installation complies with current building standards
- Seek and comply with relevant approvals including: a permit to install/alter a septic tank; Land Capability Assessment; and Planning Permit from their local council
- Ensure you use an appropriately licensed and accredited plumber
- Provide the relevant mandatory supporting documentation.

How to apply

Before submitting an application, you should complete the checklist below to make sure you have all the information required:

- ☐ Copies of tax invoices and receipts for all completed works or claims
- ☐ Evidence that you own the property
- ☐ Two types of identification that show the property address to confirm that it is your principle place of residence (e.g. rate notices, electricity bills, phone bills, drivers' licence).
- ☐ Clean up completion certificate from BRV (or evidence that demonstrates your property has been through a bushfire damage clean-up process)
- ☐ Details of the account that the funding support will be deposited into

You may also need:

- ☐ a condition report on your existing septic system, completed by a qualified plumber (if required)
- ☐ Land Capability Assessment for the property
- ☐ relevant planning or building permits for the works, issued by Council
- ☐ a copy of the Septic Tank Certificate of Use that has been issued by a Council Environmental Health Officer post-works
- ☐ details on the make and model of the rainwater tank system installed
- ☐ plumbing compliance certificate indicating all works have been undertaken and certified by a licensed plumber

Once you have the information needed and are ready to apply, you can complete an application online at www.melbournewater.com.au/RaSTRprogram.

Key links

Australian Institute of Architects

Peak body for registered architects, offering a broad range of advice and guidance on good building design, sustainable design principles and examples of designs for high fire risk areas.

www.architectsassist.com.au/resources/

Australian Institute of Building Surveyors

Peak body for Registered Building Surveyors with focus on continuous professional development and information sharing.

www.aibs.com.au

Bushfire Building Council of Australia

An independent, not-for-profit organisation developing assessment tools to help landowners and communities assess and manage bushfire risk.

www.bbca.org.au

Consumer Affairs Victoria

Provides extensive advice in relation to building contracts, selecting a building team, obtaining quotes and many other aspects of undertaking a building project.

www.consumer.vic.gov.au and www.building.vic.gov.au

Country Fire Authority

Provides information on planning for bushfires and how to create your own fire plan, plus guidance on bushfire planning requirements, templates for developing bushfire plans and practical measures to retrofitting existing houses to improve resilience to bushfire impact.

www.cfa.vic.gov.au

CSIRO

Australia's national science research agency, offering useful publications on improving resilience to bushfire, including Joan Webster OAM's Essential Bushfire Safety Tips.

https://www.csiro.au/en

Department of Environment Land Water and Planning

Manages Victoria's planning and building systems. Provides guidance on planning and building approvals and how the planning and building systems work, including templates and examples. Also offers online search capability to check planning scheme zones and any other overlays or controls affecting land.

www.planning.vic.gov.au

Design Matters

The peak body for the building design profession. Search capabilities to find building designers, planners, and other skills.

www.designmatters.org.au

Energy Safe Victoria

State regulator of all electrical trades and activities with an oline register of all licensed electricians.

esv.vic.gov.au

Engineers Australia

Peak body for Australia's engineers.

www.engineersaustralia.org.au

Environment Protection Authority

Sets regulations and standards for activities that may impact the environment or human health. This includes requirements for rainwater tanks for drinking water, and requirements for the installation and use of on-site waste systems including septic tanks.

www.epa.vic.gov.au

Fire Protection Association

Peak body for fire protection professionals. Provides links to professionals able to provide bushfire risk assessments, bushfire attack level assessments as well as design of fire suppression systems and the like.

www.fpaa.com.au

Housing industry Association

Member based association promoting excellence in building and continuous skills development, providing of informative material, including industry standard contracts.

hia.com.au

Masters Builders Association

Members based association promoting excellence in building and continuous skills development.

www.mbav.com.au

National Association of Steel-Framed Housing (Nash)

NASH is an industry association centred on light steel structural framing systems for residential and commercial construction. Provide information on the benefits of steel framing in the context of bushfire.

www.nash.asn.au/nash/

Planning Institute of Australia

The national body representing planning, providing a range of topical information on bushfire planning and development issues.

www.planning.org.au

Prefab Australia

The peak body for Australia's off-site construction industry and acts as the hub for building prefabrication technology and design.

www.prefabaus.org.au

Victorian Building Authority

Regulator of building and plumbing in Victoria. Provides advice on registration currency as well as disciplinary matters, and a range of information on building in Victoria, and rebuilding after a bushfire including retrofitting existing structures.

www.vba.vic.gov.au

Key search terms online

Useful search terms on search engines include:

- BAL 29 houses
- BAL 40 houses
- Bushfire House Design
- Bushfire Bunkers
- Bushfire Sprinkler Systems
- Retrofitting for bushfire

Search engines are also how you may research your builders, architects, designers, plumbers, electricians, town planners, bushfire planning consultants or engineers.