



Donnybrook

DRAFT Local Resilience Plan

September 2025

A photograph of three Indigenous Australians, two men and one woman, with white body paint on their faces and chests. They are looking directly at the camera with serious expressions. The woman on the left has white paint around her eyes and nose. The man in the center has white paint on his nose and chest, and is gesturing with his right hand. The man on the right has white paint on his nose and chest, and is gesturing with his left hand. They are all wearing traditional headbands.

Acknowledgment of Traditional Custodians

City of Moreton Bay acknowledges the Jinibara, Kabi Kabi and Turrbal peoples and pays respects to Elders, past, present and emerging. Council recognises that the Moreton Bay region has always been a place of cultural, spiritual, social and economic significance to its Traditional Custodians. Council is committed to reconciliation and working in partnership with Traditional Custodians and Aboriginal and Torres Strait Islander communities to shape a shared future for the benefit of all communities within the City of Moreton Bay and beyond.

Disclaimer

City of Moreton Bay and its officers accept no liability for decisions made based on information, expressed or implied, in this document. Nothing in this document should be taken as legal advice.

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About the Local Resilience Plan program

The foundation of our resilience planning process

In City of Moreton Bay, Local Resilience Plans (LRPs) identify the resilience needs of at-risk communities and embed them in our Local Resilience Action Plan (LRAP) and long-term council planning. LRAPs help councils identify and communicate their resilience needs to secure external funding for ongoing improvements.

The Queensland Reconstruction Authority (QRA) coordinated a locally-led resilience action plan program (Local Resilience Action Plans) with councils across Queensland, resulting in over 4,400 actions to boost disaster resilience. These plans help prioritise and integrate disaster risk reduction into State level decision making and investment.



How Local Resilience Plans fit with other council planning processes

What is a Local Resilience Plan?

A Local Resilience Plan is a targeted strategy to strengthen community resilience against natural hazards such as flooding and sea level rise. These plans help communities identify their needs, guide proactive actions, and support alignment with the City of Moreton Bay's LRAP and funding opportunities.

There are many actions Council or the State Government can take to reduce the impact of natural hazards on the community, but we will achieve the best results by partnering with residents to achieve long-term resilience. Council is doing local planning and identifying improvements to public infrastructure, while residents are encouraged to take property-scale actions to improve the resilience of their homes for the future.

The Local Resilience Plan is a living document, with this version serving as the starting point. It will continue to evolve through ongoing implementation support and regular updates over time. This will include updates on infrastructure planning as it progresses, and updates to climate modelling and projected impacts.

The Local Resilience Plan connects directly with the work Council is undertaking on public infrastructure, as well as with community support, which provides information and guidance on

property-scale actions that households can take to strengthen resilience.

In addition, a dedicated Local Resilience Plan website for the Donnybrook community has been established. This site will share more frequent updates and resources, and can be accessed [here](#).

Council's Commitment to Local Resilience Planning

To demonstrate our ownership of actions from the Local Resilience Plan, Council will:

- **Embed community proposals** for capital infrastructure improvements into the City's Local Resilience Action Plan, held by the Queensland Reconstruction Authority.
- **Incorporate community-led insights** into Council's forward planning for infrastructure development and hazard mitigation.
- **Support funding pathways** by aligning proposed infrastructure improvements with Council priorities – enabling feasibility studies, design, and construction through Council budgets and external grants.
- **Ensure transparency and continuity** by integrating community recommendations into long-term resilience strategies that protect lifestyle and liveability in hazard-prone areas.

Donnybrook risks and impacts

Donnybrook is situated in the middle of the Pumicestone Passage and on the western side. Donnybrook is bounded by the creek to the north and Bullock Creek to the south. Elimbah Creek is directly south of Bullock Creek. Existing areas of mangroves span the majority of the coastal and estuarine frontage and provide protection for adjacent land and assets from erosion and inundation hazards. The majority of the Donnybrook community is situated on the Pumicestone Passage. Residents have a very strong connection to place and a desire to stay and adapt to living with natural hazard risks.

A limited extent of low-lying land on the northern end of the residential area around the estuarine frontage is likely to become further exposed to storm tide inundation and expanding tidal areas in the future.

During significant storms or heavy local rainfall, tidal conditions increase flooding at Donnybrook as higher water levels in the river prevents runoff water from draining efficiently.

Donnybrook has experienced flooding events in the past. In 2022, Donnybrook Road was reportedly flooded for two days and the community was isolated during that period.

Other natural hazard impacts can include damage to property, disruption to lifestyle, and limiting access to resources.

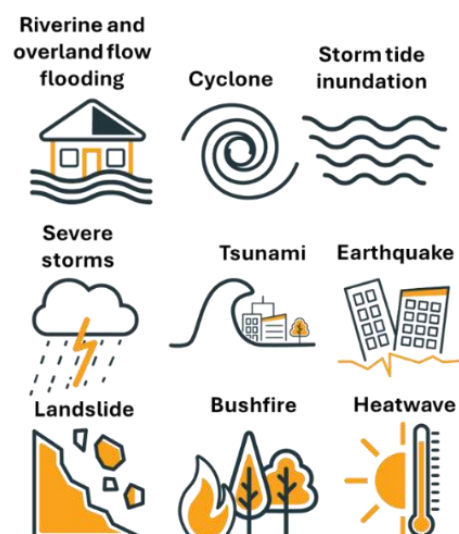
Some community members are already experiencing impacts from the natural hazards described in this plan. Residents who have not been impacted before may be affected in the future.

Natural hazards can develop gradually or with little warning, and their impacts can vary across different areas and communities.

Understanding these risks helps us plan, prepare and respond together, so we can better protect our people, property and environment.

Any hazard that impacts Donnybrook Road can further compound impacts on the community. Closure of this road isolates the community, separating them from essential services and other resources. Impacts to Pumicestone Road or Bribie Island Road limits access to an unsealed road that does not suit all vehicles.

Donnybrook Natural Hazards



Erosion

The Donnybrook foreshore is directly influenced by tidal movements and wave action from wind and boat wakes. Donnybrook is relatively sheltered from south-easterly winds by Little Goat Island. In terms of erosion, the Donnybrook foreshore is vulnerable in the present day, with the risk of erosion potentially increasing by 2050.

By 2100, the potential risk of erosion may increase further. Areas landward of the Donnybrook foreshore, including along the Esplanade and the private properties at the northern end of the residential area, may be exposed to erosion by 2100.

Tidal inundation

Donnybrook is vulnerable to tidal inundation in the present day, with parts of the Donnybrook foreshore inundated. This is due to the Donnybrook foreshore north of Amy Street having a significantly smaller vegetation buffer compared to the southern end of Donnybrook. The potential area impacted by tidal inundation in the present day is seaward of the road.

By 2050¹, there may be a small landward increase in tidal inundation at the Donnybrook foreshore, including parts of the Esplanade and Ann Street.

By 2100^{Error! Bookmark not defined.}, the majority of Esplanade North Road, small sections of Ann Street and Alice Street may be

exposed to tidal inundation, including some of the private properties.

Storm tide

Storm tide inundation is the temporary inundation (up to one tidal cycle) of low-lying coastal land from a locally elevated water level. Storm tide is a combination of normal tide, storm surge, and wave action. Storm surge² can significantly increase the water level in Pumicestone Passage, pushing water onto the foreshore and into nearby waterways, including Bullock Creek and the creek north of Donnybrook.

By 2050, the level of storm tide inundation at Donnybrook is projected to increase and pose a greater threat to the community. Additional areas of the Donnybrook foreshore, Esplanade North Road, Ann Street, and parts of Alice Street may be inundated. Additionally, the majority of the private properties on Esplanade Road North, some of the private properties on Alice Street, Amy Street and Ann Street may also be inundated by 2050.

By 2100, the level of storm tide inundation at Donnybrook is projected to increase further. Most of the properties in the northern end of the residential area, including Esplanade North Road, Alice Street, Amy Street and Ann Street, may be at-risk from storm tide inundation by 2100. Furthermore, several of the private properties in the northern end of the residential area may be inundated by 2100.

¹ A projected sea level rise of 0.8m by 2100, with 0.3m by 2050 has been adopted, as recommended by the Queensland State Government.

² A storm surge is a rise above the normal water level along a shore resulting from strong onshore winds and / or reduced atmospheric pressure. Source: GetReadyQld.qld.gov.au

Tropical cyclones

Tropical cyclones are low pressure systems that form over warm tropical waters. While they do not frequently travel as far south as Moreton Bay before crossing the coast, the region has been impacted by multiple tropical cyclones or ex-tropical cyclones in the last 100 years.

For example, Tropical Cyclone Alfred in March 2025 impacted the City of Moreton Bay, leaving more than 62,000 properties without power. A total of 3,219 at-risk properties were doorknocked as part of Council's disaster response, including those at Donnybrook.

Tropical cyclones and ex-tropical cyclones can cause significant local impacts from destructive winds, heavy rainfall leading to flooding, storm surges causing coastal inundation, and damage to infrastructure and ecosystems.

Riverine flooding

Riverine flooding occurs at Donnybrook when the water level in Bullock Creek and the creek north of Donnybrook rises to a point where they overflow onto surrounding land. Riverine flooding is typically caused by heavy rainfall upstream, which increases water flow downstream into Bullock Creek and the creek north of Donnybrook.

During high tide, elevated water levels in the Pumicestone Passage limit the drainage of floodwaters. This creates a compounding effect, as floodwaters are unable to flow freely into the Pumicestone Passage and/or out to the ocean, leading to prolonged inundation in low-lying areas.

Overland flooding

Overland flooding occurs at Donnybrook during heavy rainfall events, where the volume of rainfall exceeds the capacity of the local drainage systems. Excess water flows overland, pooling in low-lying areas and flooding properties, infrastructure and natural environments. Overland flooding can occur at the same time as or separately from riverine flooding. The two often coincide during severe weather events, leading to more significant flooding impacts.

Urbanisation can increase runoff due to the increase of impervious surfaces (concrete, roads, roofs, etc) that don't absorb water, making flooding events more unpredictable and contributing to downstream flooding.

Severe storms

Severe storms can be unpredictable and occur with little warning, bringing gale force winds, heavy rainfall and flash flooding, lightning strikes and hail. They can also create storm surges, increasing the risk of storm tide inundation. Storms are more common during hot summer months when the humidity is high and temperatures are warm, creating moist air rising into the atmosphere which can develop into a severe storm. Storms can last many hours and travel long distances, with the potential to cause considerable damage to homes and vehicles, and cause loss of power, isolation and flash flooding.

Donnybrook is vulnerable to the impacts of severe storms.

Bushfire

At Donnybrook, there are areas of High Potential Bushfire Intensity, such as the western side of the northern residential area, including the dense vegetation west of Ann Street. Parts of Esplanade North Road, Ann Street and Amy Street, including some of the private properties, are within the Potential Impact Buffer area, which may be subject to significant bushfire attacks.

Bushfire risks are highest during drier, hotter weather when it is easier for fires to spread quickly. As the climate becomes hotter and dry seasons become longer, the bushfire risk for Donnybrook properties will increase. Those close to areas of natural bushland are at the highest risk.

Landslide

Landslides are caused by unstable ground and can be a rockfall, landslide or debris flow. While landslides aren't common, the impacts are generally very severe.

Landslides can cause loss of life, property and infrastructure, and environmental damage.

At Donnybrook, there is one area of identified landslide hazard³. This area is located on Esplanade South Road.

Heatwave

Heatwaves are defined as three days or more of unusually high maximum and minimum temperatures, particularly during summer months. In heatwaves, hot nights make it harder to recover from the heat of the day and this puts more stress on the body.

Heatwaves can be deadly and can lead to health issues like heat stress and heat stroke among vulnerable individuals. During extreme heatwaves, everyone must take steps to keep cool. In the future, City of Moreton Bay is expected to face an additional 33 heatwave days per year.

³ City of Moreton Bay Landslide Hazard Overlay:
<https://datahub.moretonbay.qld.gov.au/datasets/mbrc-planning-scheme-landslide-hazard-overlay>

A resilient community



While it is impossible to completely remove the risk posed by natural hazards, a resilient community has the ability to withstand, adapt to, and recover from natural hazard impacts over long periods of time.

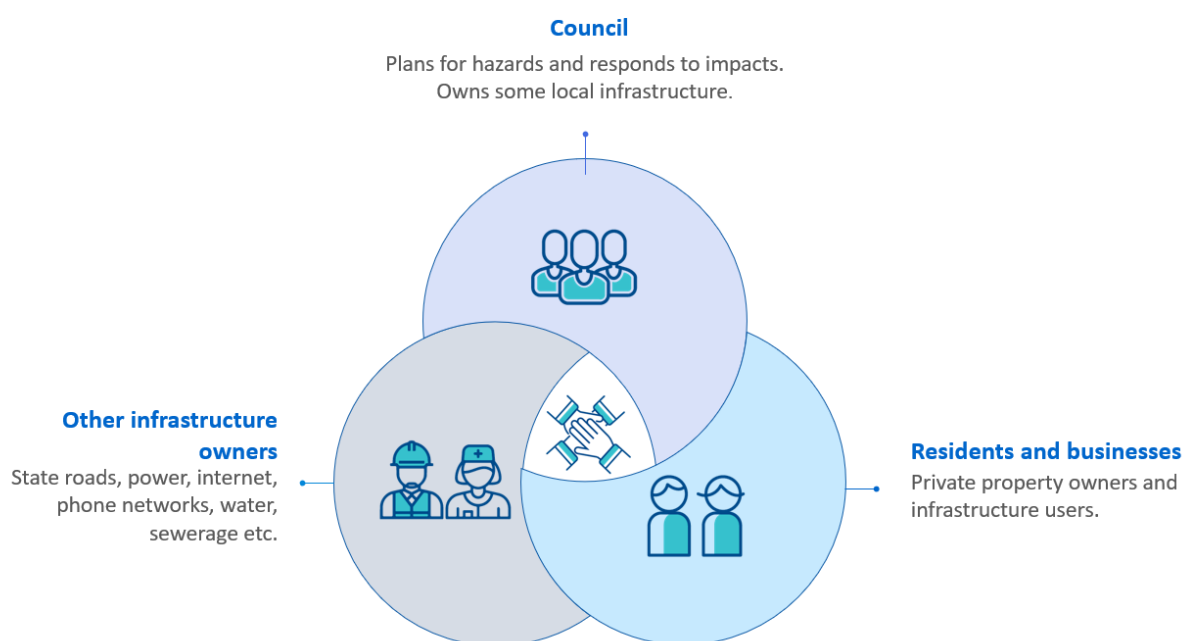
A resilient community is socially connected and has infrastructure that can withstand disasters and foster community recovery. They understand, prepare and manage possible impacts from natural hazards to properties and homes.

New or improved infrastructure can help reduce the impacts. Council is investigating future infrastructure requirements as part of future planning.

A resilient community cannot be created by any level of government working alone, or by community members alone. It requires an ongoing collaboration between all stakeholders to achieve the four elements of a resilient community: resilient people, social networks, buildings and infrastructure.

Working together for a resilient Donnybrook

Council plays a key role in identifying climate risks and planning for natural hazards such as erosion, storm tides and sea level rise. However, managing these risks is a shared responsibility between the Council and other asset owners, such as Unitywater, Energex, Telstra, Optus, NBN, and the community, including private property owners.



As climate change brings more frequent and intense extreme weather events, it will be increasingly important for Council and residents to work together. Council will continue to invest in infrastructure and regional planning, and there will be times when property owners need to take action to reduce their risk and build resilience.

By staying informed, understanding the potential impacts on your property, and getting involved in planning and recovery efforts, you can help make your whole community more resilient and strengthen our collective response.

Together, we can protect our coastline, support a thriving community and ensure that Donnybrook is well prepared for the future.

Identified local infrastructure resilience needs

As part of the development of this Local Resilience Plan, consultations revealed the following concerns raised by residents of Donnybrook:

- Worsening impacts of localised flooding and tidal inundation.
- About the rising costs of insurance, and in the future, the ability to even obtain insurance.
- Increasing development, changing drainage volumes, and overland flow paths has the potential to impact road flooding.

- The urgent need for a solution to the inundation risk to allow the area to develop safely.
- Difficult for property owners to navigate complicated processes relating to grant funding and property resilience actions.

In response, Council is working on several investigations at Donnybrook. These investigations, along with ongoing infrastructure upgrades, will help us identify, plan, design and deliver long-term infrastructure responses to natural hazard risks:

- Southern Pumicestone Passage Shoreline Erosion Management Plan
- Public infrastructure investigations
- Bushfire Hazard Identification and Response Project (expected completion end of 2025)
- Landslide Hazard Identification and Response Project (expected completion end of 2025)

Council will also liaise with other infrastructure owners, including State Government departments, to deliver improvements in their assets.

Delivering complex infrastructure projects takes time. We will continue to keep the community informed of progress on all investigations, advocacy efforts and projects.

My risks

Living Coast Plan

The Living Coast Plan⁴ identified that Donnybrook will be increasingly prone to coastal hazard risks in the future. The following adaptation pathway is currently recommended for Donnybrook:

Present day	2050	2100
Actively manage 	Actively manage 	Transition and change 

Actively manage

At localities where coastal hazard risks have been identified, the adaptation response is to proactively manage the risk through implementing a range of adaptation options. Adaptation options will be tailored to each locality, incorporating site-specific processes, community input, and statutory planning considerations. If, over time, the risk profile is observed to increase (as indicated by local trigger levels), and active management becomes unfeasible (due to economic or other factors), then the adaptation response may shift to transition, requiring a change in land use or relocation of assets.

Transition and change

For specific assets that experience intolerable risk, where the coastal hazard risk profile is very high, and active management becomes unfeasible (due to economic or other factors), a change in the location of the asset may be required. Transition is likely to be a gradual process over time, where mitigating hazards for a period is part of the transition process. A range of adaptation options will be part of the transition process.

The present day adaptation response for Donnybrook is to actively manage coastal hazard risks. At the same time, we will begin preparations for future hazard mitigation and land use transition for very high (intolerable⁵) risk areas. If a resilient built form cannot be achieved by 2050, planning would need to commence for potential transition for very high-risk areas of Donnybrook.

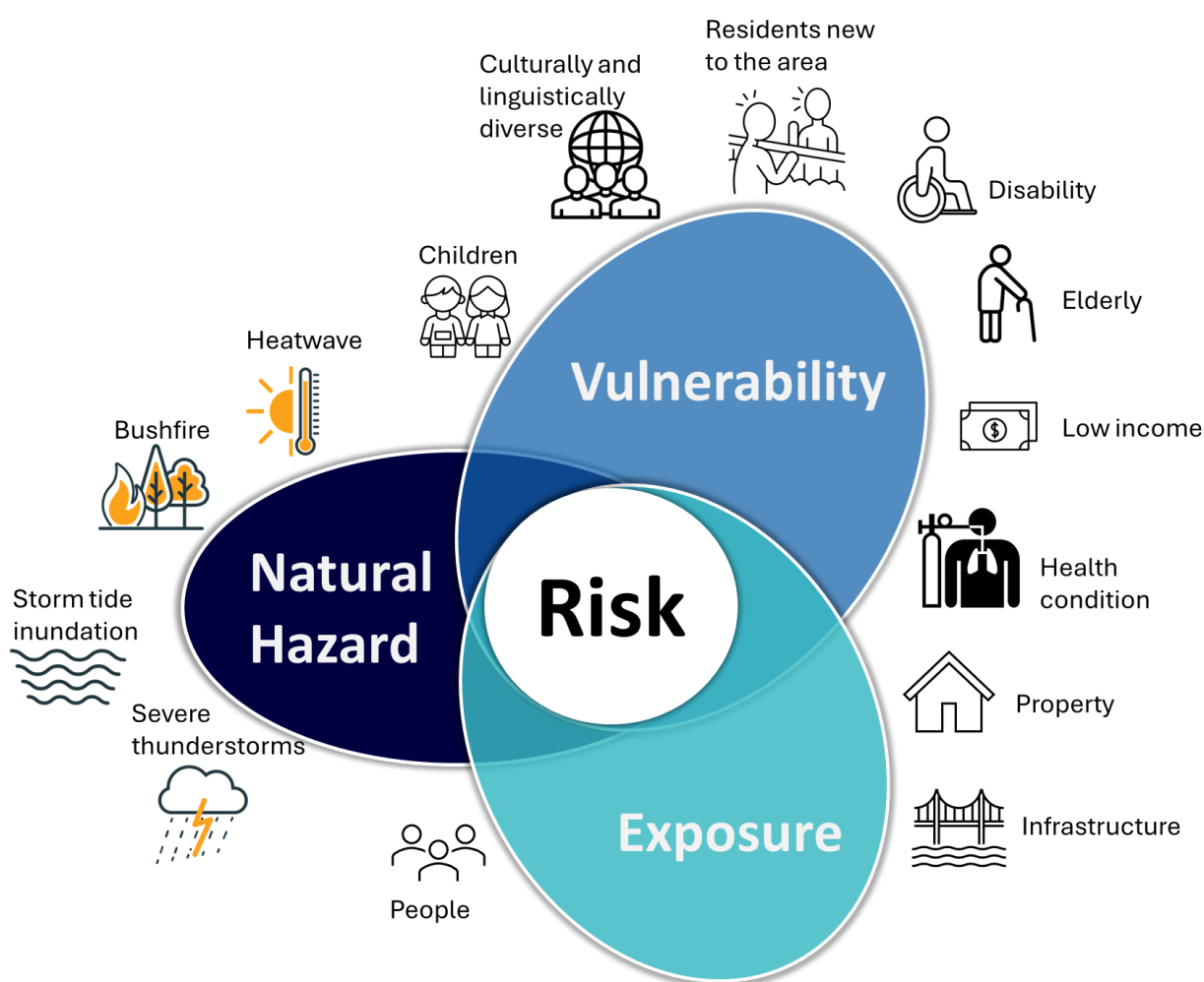
⁴ yoursay.moretonbay.qld.gov.au/coastal-hazard-adaptation-strategy

⁵ “Intolerable risk” refers to an assessment under the Planning Act 2016 (Queensland) that the level of threat to life or property from natural hazards is unacceptable.

Personal circumstances

Everyone's situation is different, and personal circumstances can significantly increase vulnerability during a hazard event (some of these are highlighted below). It is important to note Council's assessment of risk levels has not factored in your personal circumstances. Your personal circumstances may increase your risk level. Consider your personal circumstances and factor them into your household emergency plan. It is essential to note that individuals may face personal circumstances beyond those outlined below that could increase their risk level, and these should also be taken into account.

If you believe you are vulnerable, consider creating a [Person-Centred Emergency Preparedness Plan](#).



Council's assessment of key risks to your property

This pilot has a focus on coastal hazards and bushfire hazard, but other natural hazards can impact Donnybrook

The following outlines Council's assessment of key risks to your property from coastal hazards and bushfire hazard. This risk rating has been developed using a property database informed by the risk assessment from the Living Coast Plan, along with some additional assumptions detailed in this section. Please note, the risk level defined here is based on objective data and may differ from individual perceptions of risk. For more information on risk levels, please refer to the tailored risk tolerance categories in the [Living Coast Plan](#)⁶ (page 21).

Understanding the hazard impacts to your property

The diagram below illustrates the various coastal hazards that can impact your property.

- **Any yard inundation** – any floodwaters that enter your property boundary, even if the water does not reach inside your home.
- **Any flooding above your habitable floor level for a 1% AEP event or more likely events** - A 1% Annual Exceedance Probability (AEP) event means there is a 1% chance of this size flood or storm happening in any year. This is the same as saying there is a one in one hundred chance each year. It does not mean the event will only happen once every one hundred years. It could happen more than once in a lifetime, or even more than once in the same year.
- **Any flooding above your habitable floor level during HAT +0.8m (sea level rise by 2100)** - This is the level of predicted impact by 2100 from a Highest Astronomical Tide, with a 0.8m sea level rise.

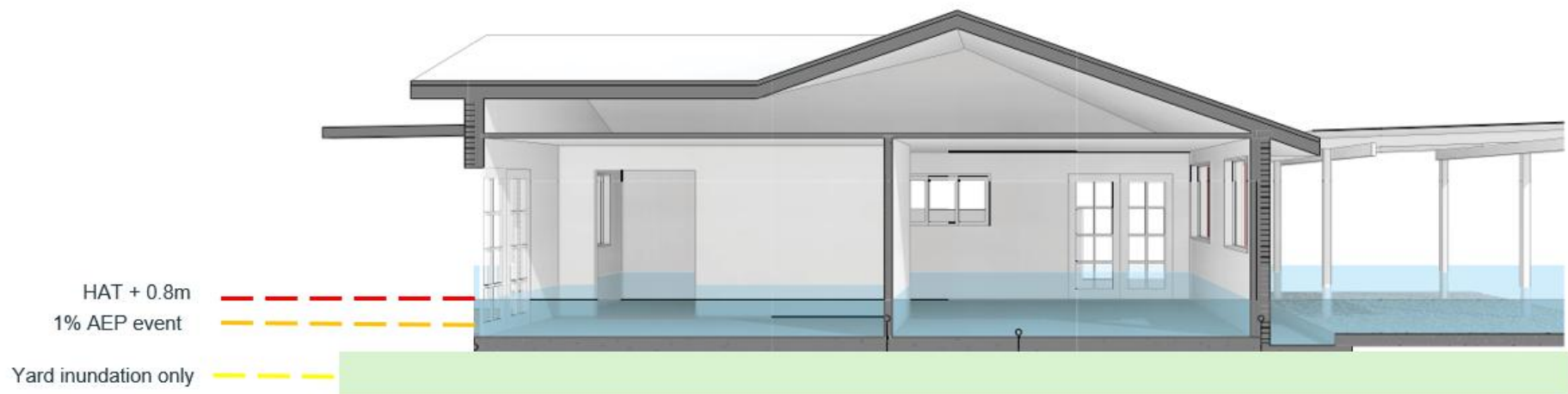
The different hazard events are colour coded based on the type of resilience action recommended these include:

- **Yellow dashed line:** refers to the disaster preparedness actions.
- **Orange dashed line:** refers to the retrofit actions.
- **Red dashed line:** refers to the rebuild/elevation actions.

Please refer to the resilience actions section for more information.

Note: This section of the Local Resilience Plan will be tailored to your individual property, using information Council already has about your land and buildings.

⁶ yoursay.moretonbay.qld.gov.au/coastal-hazard-adaptation-strategy



(Slab on ground property with the different hazard events impacting your property adapted from: Flood Resilient Building Guidance for Queensland Homes)

Note: This section of the Local Resilience Plan will be tailored to your individual property, using information Council already has about your land and buildings.

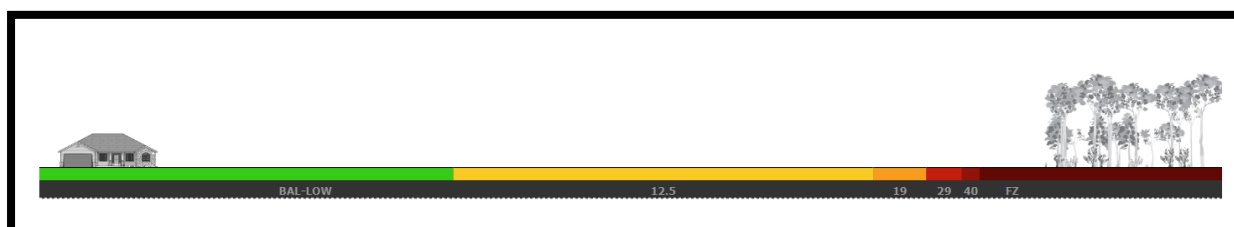
Bushfire Risk

The Bushfire Attack Level or BAL⁷ is a method for categorising local bushfire intensity the house may experience. BAL provides a local estimate of the potential radiant heat and flame exposure (from bushfire flame fronts travelling through unmanaged vegetation only) at the house location.

Bushfire Attack Level details for your property:

Bushfire Risk Attack Level	Distance of Bushfire Attack Level
Low	More than 100m

Based on the BAL for your property, no property retrofit or rebuild actions are recommended.



Calculate the Bushfire Attack Level (BAL) for your property: <https://best-practices-assessment-tool.herokuapp.com/calculator?slope=0&vegslope=0&FFDI=80&vegtype=Scrub>

Note: This section of the Local Resilience Plan will be tailored to your individual property, using information Council already has about your land and buildings.

Understanding your other natural hazard risks

For all other hazards please refer to the City of Moreton Bay Disaster Dashboard for regularly updated hazard information and mapping which can be used to assess your own risk:

<https://disaster.moretonbay.qld.gov.au/risks>

A shared journey to resilience

Our goal is clear: a resilient community by 2050. Achieving this is not about one single action, it's about many different efforts working together, like pieces of a puzzle.

When homeowners retrofit, rebuild, or elevate their homes, they are making important investments in resilience. These actions reduce risks from hazards and protect families, but they are also part of a larger effort.

⁷ research.csiro.au/bushfire/assessing-bushfire-hazards/bal-assessment/

Property owners are not alone on this journey. Council and other asset owners are investing in infrastructure that supports communities, such as roads and stormwater management systems. At the same time, ongoing disaster preparedness ensures we are ready to respond when hazards occur.

Resilience comes from linking all these actions together:

- **Infrastructure** improvements led by councils and other asset owners.
- **Retrofits and rebuilds** by property owners.
- **Disaster preparedness** through planning and readiness.

Together, each of these actions helps achieve the overall goal of a resilient Donnybrook by 2050.

Resilience actions

Using the information from the above risk assessment of your property, a number of resilience actions have been identified that could increase the resilience of your property by 2050. These actions consider the current status of your property and the potential impacts of coastal hazards and bushfire hazard in the future. Below are the resilience actions identified for your property. The resilience actions are broken down into:

- Resilient people and social networks actions
- Resilient buildings actions
 - Retrofit resilience actions
 - Rebuild/elevation resilience actions

The actions you undertake for your property and circumstances are up to you. This information is provided as guidance to help you make informed decisions for the future of your property at Donnybrook.

For information about the resilient actions, visit the [Donnybrook LRP website](#).



Resilient people and social networks – Disaster Preparedness

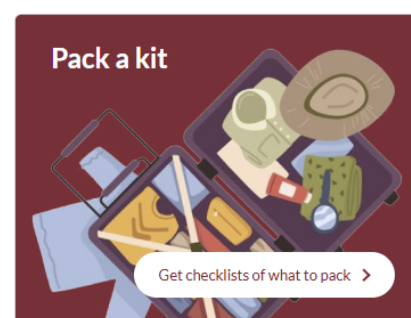
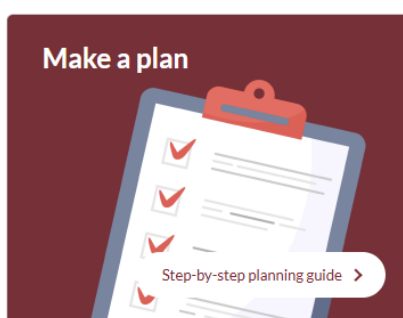
Your first step to being prepared is to find out:

- what, when and where a disaster might happen,
- how severe it could potentially be,
- and if you would be affected.

By making a plan now, you can help keep your home, loved ones and community safer.

Natural hazards and extreme weather can cause your home to lose power, phone and internet access. You also may not be able to leave your community or get to a supermarket or pharmacy for supplies. Prepare an emergency kit and store it somewhere safe so you have the things you need when you need them.

Essential Steps to **Get Ready**



☐ Check Council's Disaster Dashboard: Understand Your Risks story maps to understand your risk of impacts and isolation in a disaster event	Include: ☐ Meeting Points ☐ Emergency Contacts ☐ Evacuation Routes for different hazards ☐ Share with all household members ☐ Remember to include your pets ☐ If vulnerable, consider creating a Person-Centred Emergency Preparedness Plan	Include: ☐ Water (3 days supply) ☐ Non-perishable food ☐ Torch ☐ Batteries ☐ First Aid Kit ☐ Important Documents
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Source: <https://www.getready.qld.gov.au/>

Please refer to Appendix A for a list of disaster preparedness actions.

Resilient buildings - Retrofit resilience actions

Coastal hazards and flooding

Retrofit involves using flood resilient materials and construction techniques to allow flood waters to enter the house while minimising the chance of damage and moisture problems afterwards. By accepting a level of risk through wet proofing, and creating space for water to flow, you can be better prepared for the next time a flood happens. This means working with water rather than against it.

Resilient Retrofit Program

Expert Assessments

The Resilient Homes Fund provides support to homeowners who experienced damage from Queensland's major flood events in 2021 and 2022. This support includes a Home Assessment where our expert assessors help affected homeowners understand their flood risks and identify opportunities to improve the resilience of the home. An assessment includes identifying which resilient retrofit strategies are suitable and can be covered by the Resilient Retrofit Program and providing preliminary advice on suitability for the House-raising Program or the Voluntary Home Buy-back Program.

Under the Resilient Retrofit Program funding is available for covered resilient retrofit strategies (as shown on this page) in rooms or areas of the home assessed as being affected by flooding. The illustrations of house types on the following pages show all the strategies covered by the Resilient Homes Fund, along with other strategies that may be suitable for your home but are not covered by the funding program (for example raising the pool pump is not covered by the program). Look at your house type and find the strategies that may help improve the resilience of your home.

Homeowners are advised to consider the structural condition of their home, property levels, building code compliance and planning scheme requirements before agreeing to any works.

Eligible Strategies

The Resilient Retrofit Program helps homeowners with a wide range of flood resilient retrofitting strategies to suit the many different house types in Queensland. Throughout the document, strategies that may be covered by the fund are circled green, while others are provided for educational purposes only.

Stairs



Make the bottom riser of stairs removable for easy cleaning and drying out.



Replace closed riser stairs with open riser stairs made from flood resilient materials.

Services



Raise air conditioning condenser units.



Raise the electrical switchboard.



Raise storage hot water unit or replace with a raised instantaneous gas hot water unit.



Raise the water tank pump and electrical systems.



Install separate circuits (with breakers) on the lower and upper levels.

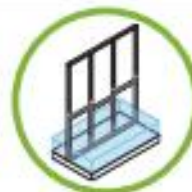
Walls



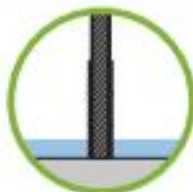
Where possible, replace cavity walls with non-cavity walls to minimise the chance of mould.



Use flood resilient wall framing to minimise the chance of mould or damage.



Paint existing pine frame cavity walls to assist in future cleaning and prevent mould growth.



Replace loose-fill insulation with rigid cell insulation in cavity walls.



Replace wall linings with flood resilient wall linings.

Walls (continued)



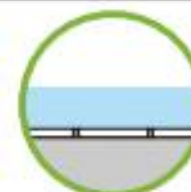
Add additional weep holes to help dry out the wall cavity or sub-floor.



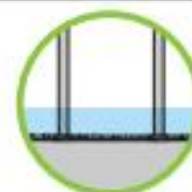
Replace non-resilient mouldings and skirtings with water impervious mouldings.



Replace non-resilient flooring and skirting with flood resilient flooring and skirting.



Use flood resilient grout and apply flood resilient sealant when tiling or re-tiling wet areas.



Surface control on sub-floor ground to increase resilience.

Openings



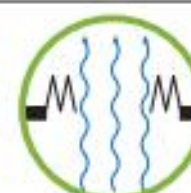
Replace hollow core doors with solid core doors.



Install flush door sills to ensure easy cleaning after a flood event.



Replace cavity sliding doors with a swing or face-of-wall sliding doors.



Door changes to maximise the existing opening.



Retrofit garage doors with permeable doors to allow water to flow through.

Cabinetry, bathrooms and laundry



Replace non-resilient cabinetry with flood resilient cabinetry.



Allow cabinetry kickboards to be removable.



Install raised cabinetry.



Raise kitchen appliances.



Raise storage shelves.

Cabinetry, bathrooms and laundry



Install a removable panel or replace the built-in bathtub with a freestanding bathtub or a shower.



Install wall hung cabinetry, or install wall hung vanity bench with no cabinetry.



Raise the washing machine and dryer.



Raise data and electrical points.

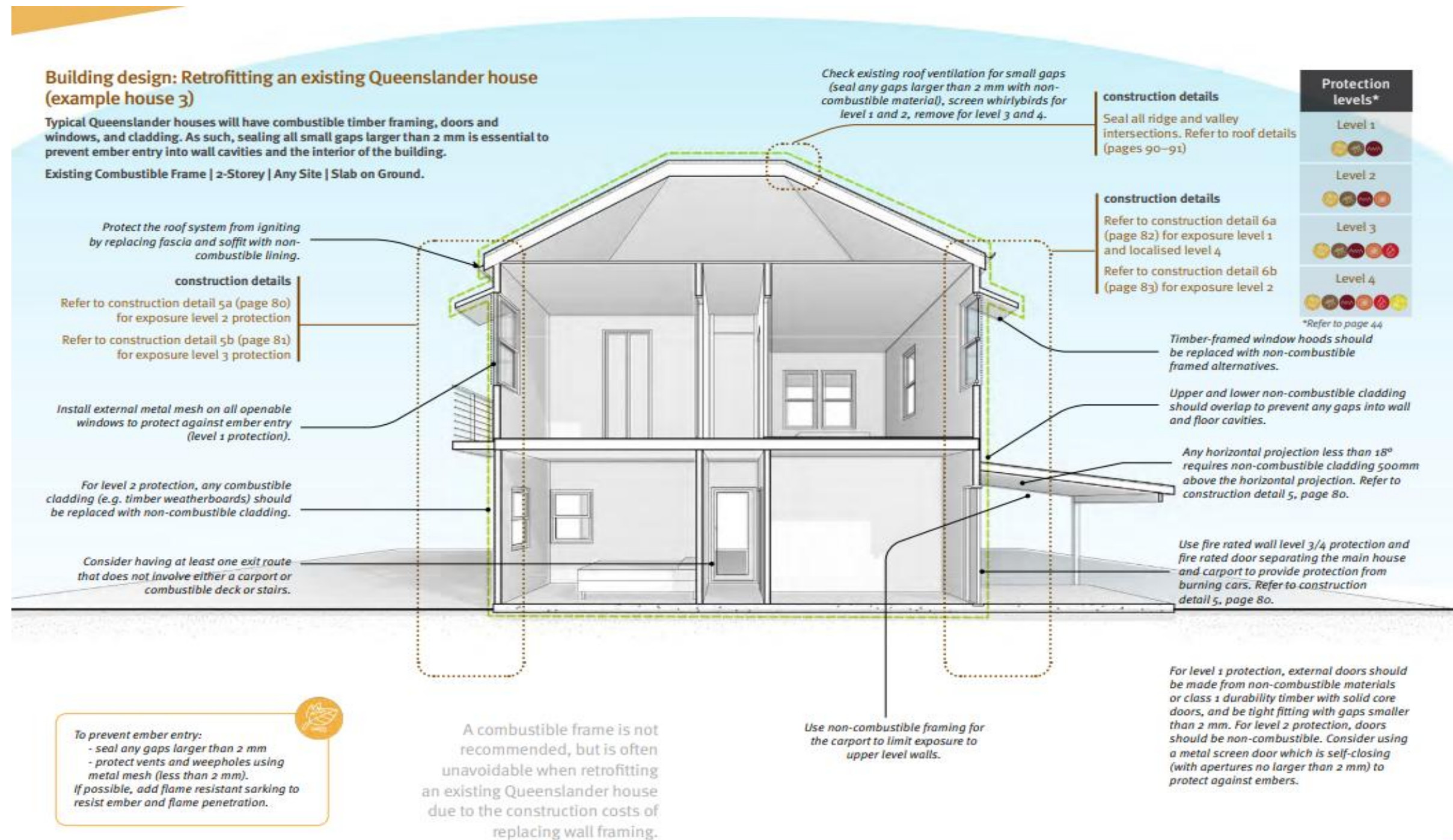


Install corrosion-resistant door and window hardware.

Fixtures

Bushfire

The bushfire resilience of a building is only as good as its weakest element. Therefore, when considering the benefits of retrofitting for bushfire resilience, especially when working with a limited budget, it is important to first address the weakest or most vulnerable aspects of the house and its surroundings.



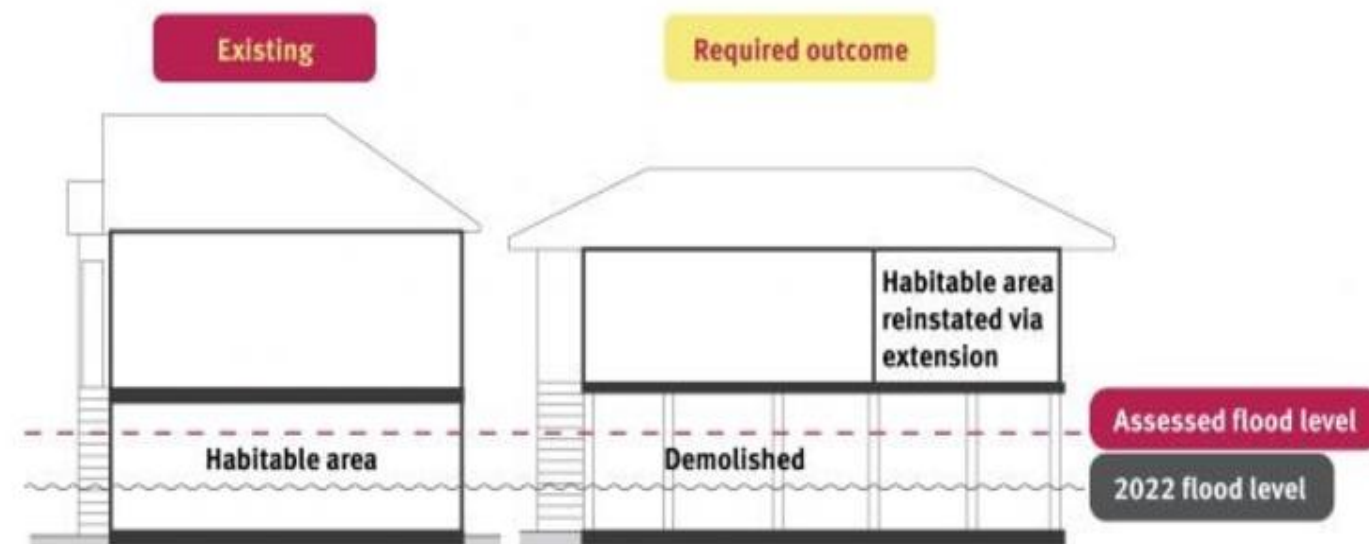
Resilient buildings - Rebuild/elevation resilience actions

Coastal hazards and flooding

Raising the level of the house and its services is effective at mitigating flood damage to your home.

Two-storey demolition and rebuild as extension

The existing habitable floor below the assessed flood level is demolished and rebuilt (above the assessed flood level) as an extension to the existing home. The lower level is not enclosed or converted into a new habitable area.



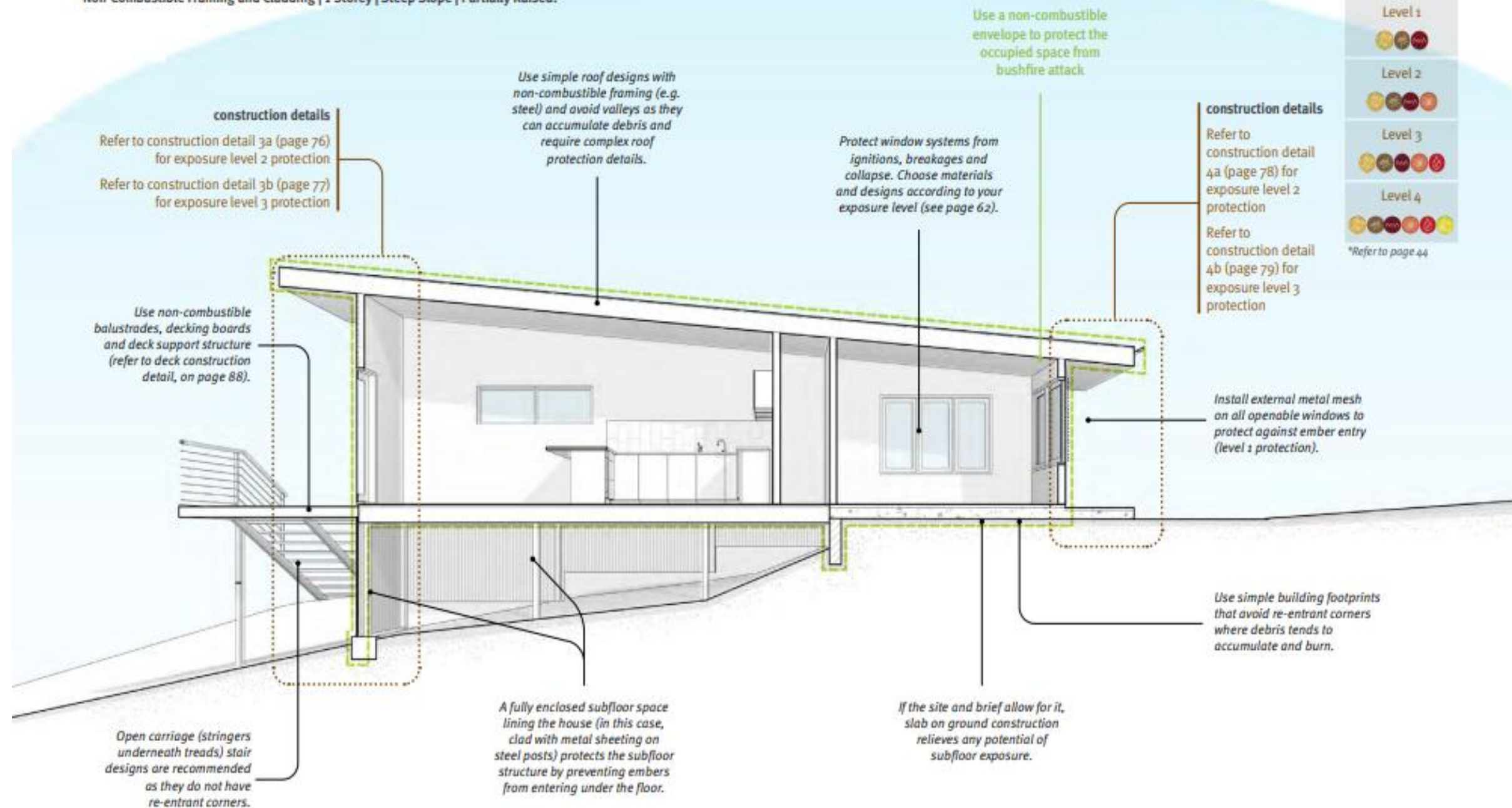
Bushfire

If you are building a new house in a bushfire prone area, ensure it is designed and constructed with bushfire protection in mind.

Building design: Building a new house on a sloped site (example house 2)

Example house 2 is built on a slope and partially raised of the ground. Simple building footprints and roof shapes reduce the number of areas where debris and embers can accumulate, and eliminate potential ignition points.

Non-Combustible Framing and Cladding | 1-Storey | Steep Slope | Partially Raised.



Glossary of terms

Hazards, risks and vulnerabilities

Natural hazard - A hazard is something that has the potential to cause harm. Natural hazard refers to the potential for natural processes to cause harm, such as fires, floods, and severe storms.

Riverine flooding vs Overland flow - Both of these natural processes can cause flood impacts. Riverine flooding refers to the water level in a river or creek rising and “breaking the banks” so that water flows onto the floodplain. Overland flow is caused by rainwater draining from higher land to lower areas. The more saturated the soil is, the more water will flow over it rather than soaking in.

Exposure - Exposure describes who and what is at-risk in an event. For example: residents and businesses in the area expected to be affected by flooding.

Vulnerability - An assessment of characteristics of a person, home, business or other asset that can change their level of risk, either by making them more/less likely to be impacted or by making them more/less severely impacted. For example: a person with respiratory health issues is more vulnerable to bushfire smoke impacts, and a building made of bricks and concrete is less vulnerable to fire.

Impacts (direct and indirect) - Direct impacts occur when the event directly impacts a person, home, business, or other asset. For example, a bushfire burns a home, or a flood inundates a shop. Indirect impacts are those that affect people, homes, businesses and assets away from the actual event. For example, smoke from a bushfire causes health issues, or a flooded road prevents people from going to work.

Risk - Risk is the likelihood that a particular hazard event may happen and the consequences if it does. Risk assessments use a matrix of likelihood and consequences to determine a risk rating.

		Impact →				
		Negligible	Minor	Moderate	Significant	Severe
Likelihood ↑	Very Likely	Low Med	Medium	Med Hi	High	High
	Likely	Low	Low Med	Medium	Med Hi	High
	Possible	Low	Low Med	Medium	Med Hi	Med Hi
	Unlikely	Low	Low Med	Low Med	Medium	Med Hi
	Very Unlikely	Low	Low	Low Med	Medium	Medium

Tolerable risk - A level of risk to properties and infrastructure that is within acceptable limits to both residents and Council. It considers the forecast frequency and severity of hazard events as well as any measures in place to mitigate or adapt to those risks. The level of risk may be considered intolerable because of either the frequency or level of impact associated with hazards.

AEP or Annual Exceedance Probability - Used in relation to flood hazards, it means the probability that a flood of a particular size will happen in any given year. A 1% AEP means there is a 1 in 100 probability that a flood of the level modelled will happen this year. This is sometimes referred to as a “one in a hundred year” event, however the same probability applies every year regardless of when the last event was. Council also models floods events at higher and lower AEPs. A 0.1% AEP flood event has a 1 in 1,000 probability of happening this year, while a 5% AEP flood event has a 1 in 20 probability of happening this year.

Coastal Hazards

Coastal hazards - Natural coastal processes can create hazards for coastal areas, including tidal inundation, erosion and accretion, and changing sea levels. Coastal hazards events can be sudden or very slow.

Erosion vs Accretion - These are both natural coastal processes that can occur over long periods or quickly as a result of storms or other events. Wind, waves and coastal currents shift sand and sediments either away from the shore (erosion) or onto the shore (accretion). Coastlines are in a constant state of change through these processes.

Sea level change - Sea levels are constantly changing with tides and other processes, but “sea level change” generally refers to long-term changes in average sea levels. Sea levels have changed many times throughout history and are currently rising.

Storm tide - The total elevated sea height at the coast combining storm surge and the predicted tide height.

Storm tide inundation - When ocean water levels and waves are high enough to cause localised flooding of normally dry land.

Overtopping - When water flows over the top of structures designed to hold it back, like seawalls. Overtopping can cause damage behind the structure, weakening it and making it less effective.

Living Coast Plan (or Coastal Hazard Adaptation Strategy, CHAS) - City of Moreton Bay’s Living Coast Plan was a risk assessment to adapt and respond to coastal hazards forecast up to 2100. The plan was endorsed by Council in May 2023 and can be viewed at yoursay.moretonbay.qld.gov.au/coastal-hazard-adaptation-strategy. The Living Coast Plan identified at-risk communities that are now part of the Local Resilience Plans pilot project.

Resilience and adaptation

Adaptation - Adjusting buildings, infrastructure and lifestyles to live safely with natural hazards. For example, raising a house on stumps to allow water to flow under it without causing harm.

Mitigation - Actions to reduce or eliminate natural hazards impacts or associated risks. For example, removing trees around a house to reduce bushfire hazard.

Resilience - The ability to cope with and quickly recover from hazard events. A resilient community is prepared for natural hazard events and takes steps to reduce or avoid some impacts. It has plans in place to manage any impacts and quickly “bounce back” after the event.

Short, Medium and Long-term actions - To achieve long-term resilience both Council and residents will need to take actions.

- **Short-term actions** are things that can be done in a weekend at a low cost. Examples include making a Household Emergency Plan or starting to stock an Emergency Kit.
- **Medium-term actions** require some planning and a moderate cost to implement. Examples include replacing carpet with tiles or Council improving drainage in your street.
- **Long-term actions** need more thought and may come at a higher cost. Examples include raising your house or Council constructing a new seawall.

Infrastructure solutions - Improvements to community assets that can help to mitigate or adapt to natural hazards. For example: seawalls that reduce the likelihood of tidal inundation (mitigation), or relocating a water pump station to higher ground (adaptation). Some infrastructure is owned by Council. Some is owned by the State Government. Infrastructure for utilities like water supply, electricity, phone and internet services is usually owned by companies.

Local Resilience Plan - A Local Resilience Plan is an area-specific plan to improve community resilience to natural hazards such as flooding and sea level rises.

Transition and change - For specific assets that experience intolerable risk, where the coastal hazard risk profile is very high, and active management becomes unfeasible (due to economic or other factors), a change in the location of the asset may be required. Transition is likely to be a gradual process over time, where mitigating hazards for a period is part of the transition process. A range of adaptation options will be part of the transition process.



Common abbreviations and acronyms

Government organisations

BoM - Bureau of Meteorology

DTMR - Department of Transport and Main Roads

DESI - Department of Environment, Science and Innovation

QPWS - Queensland Parks and Wildlife Service

Emergency services and responses

QAS - Queensland Ambulance Service

QFD - Queensland Fire Department

QPS - Queensland Police Service

RFS - Rural Fire Service

SES - State Emergency Service

Environmental terms

HAT - Highest Astronomical Tide (predicted highest possible astronomical tide)

LAT - Lowest Astronomical Tide (predicted lowest possible astronomical tide)

AHD - Australian Height Datum (baseline for measuring elevation, based on average sea level)

Appendix A - Disaster preparedness actions

	Category	Action	Details
1	Understand Your Risk	Identify your household risk to hazards	☐ Check Council's Disaster Dashboard: Understand Your Risks story maps to understand your risk of impacts and isolation in a disaster event ☐ Download Flood check property report for detailed property flooding conditions ☐ Look up Flood Viewer to understand the possible extent of a range of flood scenarios in your local area ☐ Check Queensland Fire Department's Postcode Checker to see the bushfire potential in your neighbourhood
		Understand your bushfire risk	☐ Look around your property and neighbouring land, and note any potential fire hazards (dry grass, dead leaves, overhanging branches, trees/shrubs). ☐ Use tools to identify potential bushfire hazards on your property and at the local landscape scale. This includes the CSIRO Hazard Identification Tutorial . ☐ Develop a map of your property highlighting important bushfire-related features
		Determine your Bushfire Attack Level (BAL)	The BAL is a measure of your property's risk of bushfire exposure. Calculate using either: ☐ Online calculator (Dash) ☐ Consulting a professional
		Create or update your household emergency plan As you are in an isolated area, consider a bushfire survival plan which considers leaving early before a bushfire threatens and travelling by road becomes hazardous	Include: ☐ Meeting Points ☐ Emergency Contacts ☐ Evacuation Routes for different hazards ☐ Share with all household members ☐ Remember to include your pets ☐ If vulnerable, consider creating a Person-Centred Emergency Preparedness Plan
2	Emergency Plan		

3	Emergency/ Evacuation Kit	Pack an emergency kit	Include: ☐ Water (3 days supply) ☐ Non-perishable food ☐ Torch ☐ Batteries ☐ First Aid Kit ☐ Important Documents
		To be prepared for if you need to leave your home, pack an evacuation kit	Include: ☐ Mobile phone & charger ☐ Medications & scripts ☐ Battery-operated radio ☐ Blankets (natural fibres) ☐ Family photos, valuables & documents
4	Home Preparation	Secure outdoor items	☐ Store loose items (garden furniture, tools) to prevent them from becoming projectiles in high winds
		Check roof, gutters and drains	☐ Ensure gutters are clear of debris ☐ Secure roof tiles to reduce risk during storms
		Create defensible spaces around your home	☐ Keep grass short ☐ Remove dead plants ☐ Trim trees and shrubs ☐ Ensure flammable items are stored in appropriate spaces
5	Communication	Charge devices and backup power sources	☐ Fully charge phones, power banks, and portable radios
		Download or have access to emergency information	☐ Install apps like "BOM Weather" ☐ Sign up to MoretonAlert ☐ Stay informed by listening to ABC, 101.5Fm or 99.7FM radio stations ☐ It is your responsibility to monitor Fire Danger Ratings and stay alert to Bushfire Warnings
6	Community	Connect with neighbours	☐ Share plans and support vulnerable individuals in your community
7	Insurance	Review insurance coverage	☐ Ensure policies cover natural disasters common in the City of Moreton Bay

Appendix B- Flood Check Property Report

Note: This section of the Local Resilience Plan will be tailored to your individual property, using information Council already has about your land and buildings.

