Community Bushfire Management Plan

Airlie Beach
2022-2032

Author: Scott Hardy
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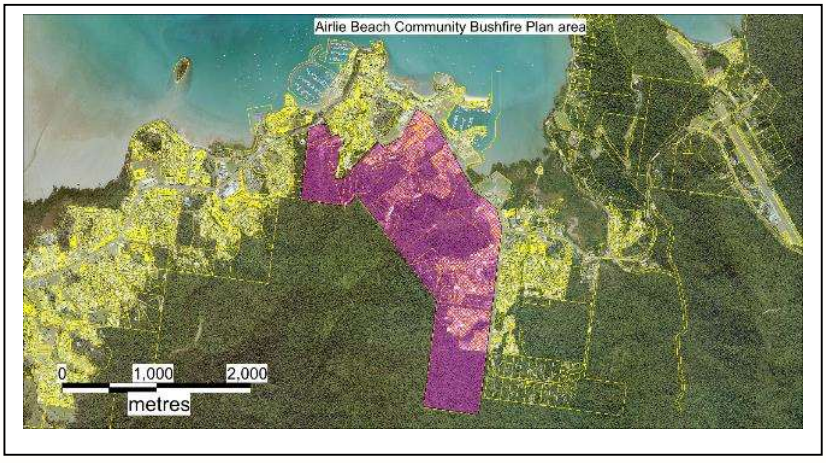

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Executive Summary

The purpose of the Airlie Beach Community Bushfire Management Plan is to document bushfire hazard and describe how this hazard will be managed for the next 10 years (2022-2032). This Bushfire Plan is specifically written for the Airlie Beach residents and stakeholders. The Airlie Beach Fire Plan area covers the land between Eshelby Road at Cannonvale to Jubilee Pocket and covers 295 ha. The land in the Airlie Beach Community Bushfire Plan area includes; Council land 29ha, Queensland government land 0ha, private urban landuse of 140ha and rural residential and larger lots of 125ha.

The reason why this Bushfire Management Plan has been developed is the presence of residential and rural-residential dwellings occurring in and adjacent to medium to high bushfire hazard areas in the Airlie Beach area. Fire management agencies are concerned that wild fires in the Airlie Beach area could threaten numerous residential properties. In addition, there was a wild fire in the Airlie Beach area in November 2020 which threatened a number of residential lots in the upland area behind Airlie Beach.

The Airlie Beach Bushfire Plan seeks the following outcomes:

- Describe the extent of bushfire hazard.
- Describe the location of existing and potential fire control lines and fire breaks.
- List the roles and responsibilities for bushfire management.
- List the proposed schedule of bushfire mitigation tasks.
- Suggest actions to bushfire reduce hazard and risk

The main issues identified in the development of this Plan have been:

- The process of “land banking” large urban lots is contributing to increasing the neighbourhoods bushfire hazard and risk of fires damaging property.
- The increasing area of long exotic grass such as guinea grass is increasing bushfire hazard.
- It may be useful to explore how a Council local law can be used to regulate the long grass and overgrown lots to reduce bushfire hazard.
- To explore mechanisms under the Planning Scheme to reduce the development of scenarios where residential areas are developed in bushfire prone areas.

While this proposed Community Bushfire Management Plan provides guidelines on how the Airlie Beach bushfire hazard could be managed. Each landholder is responsible under legislation to manage their own bushfire hazard. The Council encourages landholders to discuss their bushfire planning and management with their neighbours.

Acknowledgements

The Whitsunday Regional Council would like to thank the following stakeholders who have contributed to the Airlie Beach Community Bushfire Management Plan;

- Queensland Fire and Emergency Services (QFES)
- Queensland Parks and Wildlife Service (QPWS)
- Airlie Beach Fire Brigade

Document Control

Title:	Bushfire Management Plan – Airlie Beach
Council Work Unit:	Natural Resource Management
Contact Officer:	Scott Hardy
Email:	info@whitsundayrc.qld.gov.au
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1. Introduction

In 2018 and 2020, two bushfires occurred in the upland areas behind Airlie Beach township and threatened residential areas and the Conway National Park. The additional fuel load after cyclone Debbie from March 2017, combined with dry early summer periods combined to increase bushfire hazard and risk of damage to property.

The land in the hilly areas behind Airlie Beach area have been identified as having a mix of low to high bushfire hazard due to the vegetation type, slope and aspect. The increased development of “Airlie Hill” has resulted in often expensive residential dwellings being located upslope of land with medium to high bushfire hazard. The Airlie Beach locality has a risk for loss of life and/or property if the bushfire hazard is not managed appropriately. Fire Management agencies are concerned that wildfires in the Airlie Beach area could cause damage to a number of properties which are surrounded by unmanaged grassland and eucalypt forest regrowth.

The Council, together with the Queensland Fire and Emergency Services (QFES) have defined an area in the Airlie Beach area which has vegetation and topographic conditions which warrant more detailed community bushfire planning. The Airlie Beach Fire Plan area covers 295ha and includes 450 residential lots. The Whitsunday Regional Council owns or manages 29ha of land in this area. The Queensland government owns and manages 0 ha in the Bushfire Management Plan area, but manages the 23,000ha of the adjacent Conway National Park. The Airlie Beach Fire Plan area has been defined based on the likelihood of bushfires occurring and the threat to residential lots, and the boundary of Conway National Park.

The purpose of this Community Bushfire Management Plan is to identify the actions required to reduce bushfire hazard in the Airlie Beach and surrounding area for the next 10 years (2022-2032) (Figure 1). This Plan is designed for the area between Eshelby Road at Cannonvale and Jubilee Pocket Road, Jubilee Pocket. The objectives of this Plan include;

- Identify where fire lines are required to protect life and property from fire,
- Outline methods that could be used to reduce bushfire hazard,
- Improve community awareness,
- Maintain coordination and communication between landowners,
- Description of a maintenance program to manage bushfire hazard and risk.

It is envisaged that this Community Bushfire Management Plan will be used as a communication tool to inform stakeholders and the community of the bushfire hazard within Airlie Beach and how it could be managed. Ultimately, each landholder will be responsible for managing bushfire hazard on their own land. The Council encourages a coordinated and cooperative approach to community bushfire hazard management.

Figure 1: *The application area for the Airlie Beach Community Bushfire Management Plan.*

2. Background

2.1 Land Tenure and Ownership

The Airlie Beach Community Bushfire planning area covers approximately 295ha with 29ha being owned or managed by the Whitsunday Regional Council. There are over 450 residential lots which cover 140ha.

Figure 2: *Location of Airlie Beach Bushfire Plan area and Whitsunday Regional Council land (blue lots).*

2.2 Site Description

Geology, Landform and Soils

The geology of the Airlie Beach area was mapped by the Queensland government in 1972. An extract of the Proserpine geology map is shown in figure 4. The hills are formed on Airlie volcanics (Pll) which are Lower Permian in age and dominated by acid to intermediate volcanic and pyroclastic flows. The geology influences the fertility of the soils and also the type of vegetation which occurs.

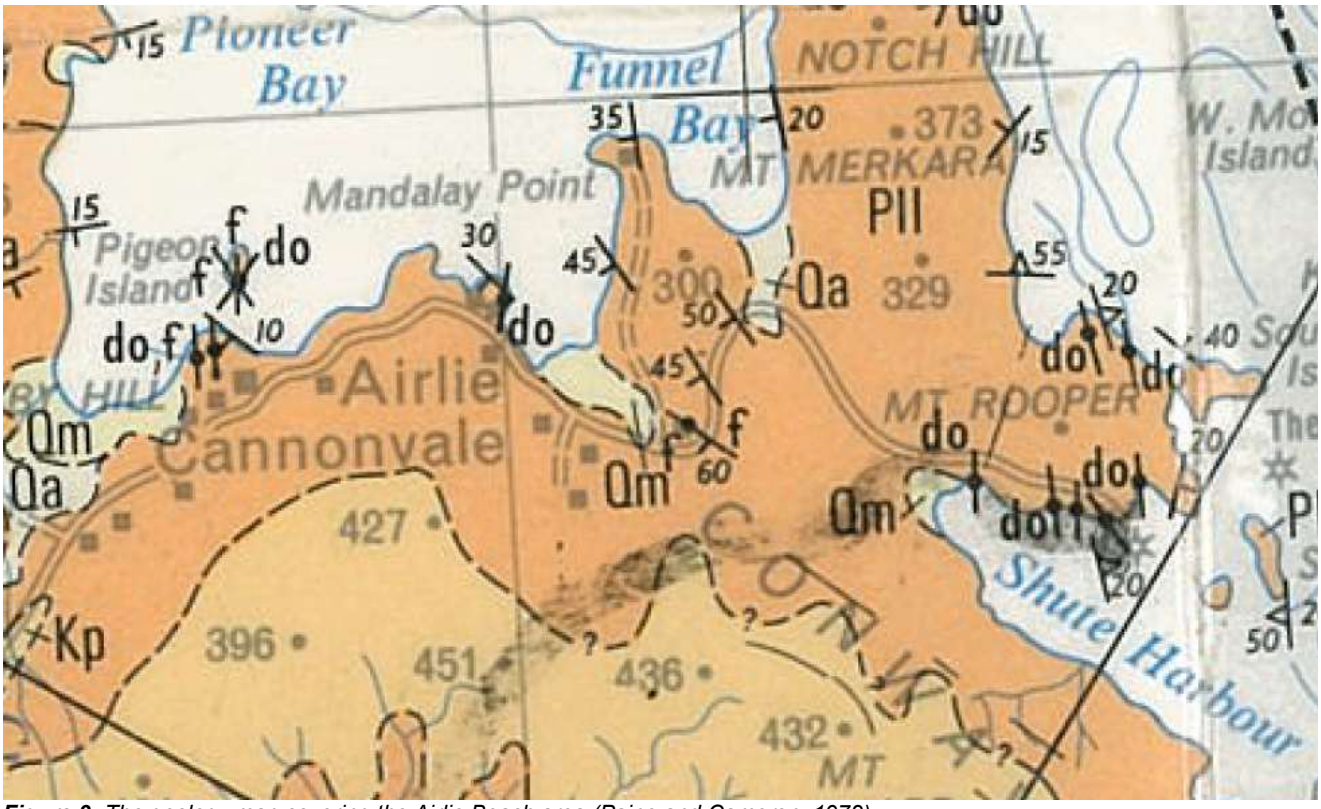

Figure 3: *The geology map covering the Airlie Beach area (Paine and Cameron, 1972).*

The soils of the Airlie Beach area were mapped by Hardy (2003). The main soils in the Management Area in the hillslope areas are non-sodic gradational to duplex soils formed on intermediate volcanics (Riordanvale and Habana soil profile classes) (Figure 4). Where the underlying rock is acid volcanics, the shallower, sandy soils are formed (Dittmer soil type).

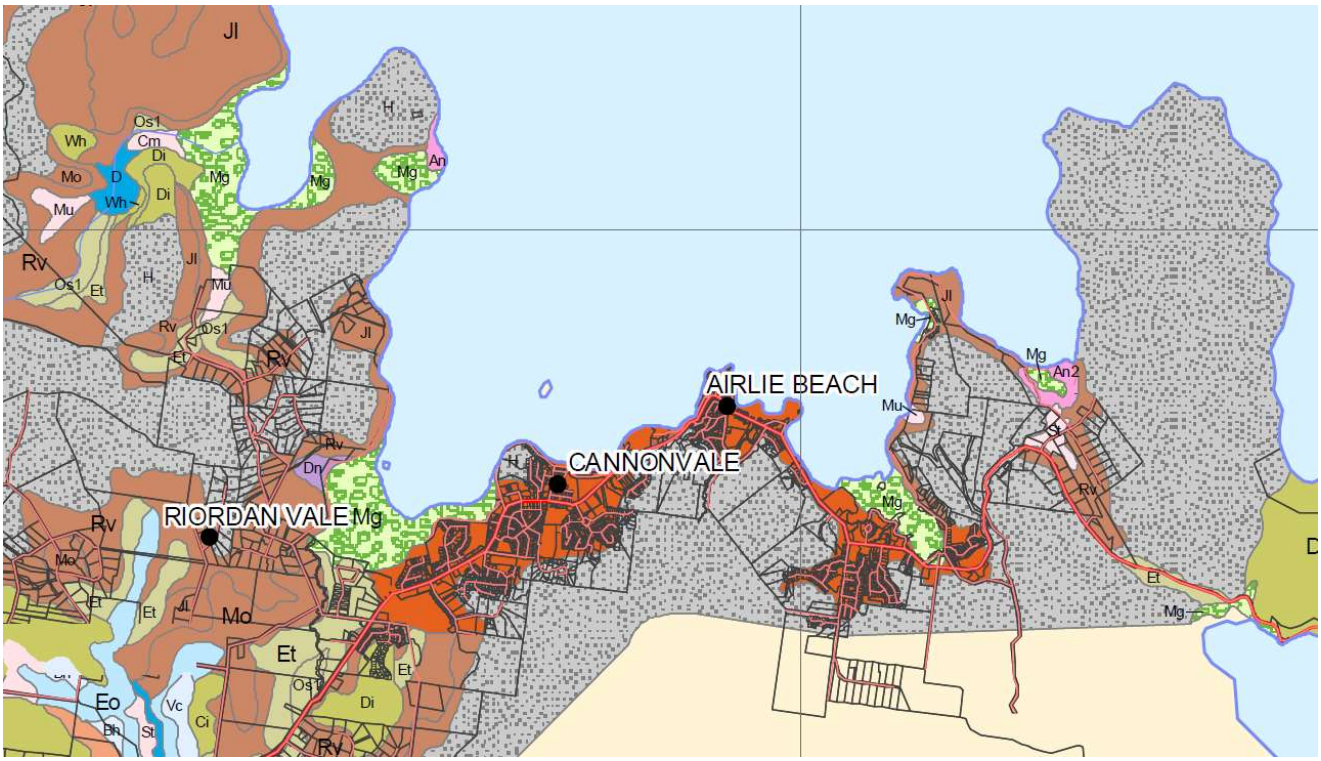

Figure 4: *The soils of the Airlie Beach area.*

Vegetation

The vegetation of the Airlie Beach area has been mapped by the State government. The regional ecosystem map for the Airlie Beach area can be found in the appendix of this report. The geology, fertility of the soils and rainfall patterns influence the vegetation of the Airlie Beach area. The dominant vegetation surrounding the Airlie Beach area is eucalypt forest and semi-evergreen microphyll vine thicket. The dominant regional ecosystems are:

- RE 8.1.1. Mangrove closed forest of marine clay plains and estuaries
- RE 8.3.10. Semi-evergreen to evergreen notophyll vine forest, on gently to moderately-sloping alluvial fans adjacent to ranges
- RE 8.12.12. Eucalyptus tereticornis and/or Corymbia spp. and/or E. platyphylla and/or Lophostemon suaveolens woodland to open forest on hill slopes on Mesozoic to Proterozoic igneous rocks
- RE 8.12.18. Semi-evergreen notophyll/microphyll to complex notophyll Argyrodendron spp. vine forest +/- Araucaria cunninghamii, of foothills and uplands on near-coastal ranges and islands, on Mesozoic to Proterozoic igneous rocks
- Re 8.12.26: Corymbia tessellaris and/or Eucalyptus tereticornis open forest on hill slopes of islands and near coastal areas, on Mesozoic to Proterozoic igneous rocks, and Tertiary acid to intermediate volcanics.

The regional ecosystem map for the Airlie Beach area can be found in the appendix.

2.3 Bushfire Legislation and Policy

Australia and Queensland

All levels of government have a responsibility and role in bushfire management. In 2014, the Council of Australian Governments approved the National Bushfire Management Policy Statement (National Forest Fire Management Group, 2014). The National Policy identifies Local government and other landholders having an important role in bushfire management and planning. The National Bushfire Policy identifies four main strategic objectives and 14 bushfire management goals. The four strategic National bushfire management objectives are:

- Effectively managing the land with fire
- Involved and capable communities
- Strong land, fire and emergency partnerships and capability
- Actively and adaptively managing risk

In 2020, the Commonwealth government initiated a Royal Commission into bushfires. The final Royal commission report contained 80 recommendations (CoA, 2020). Of the 80 recommendations there are four which are particularly relevant to the development of the Airlie Beach Community Bushfire Plan:

- **Recommendation 10.1 Disaster education for individuals and communities**
    - State and territory governments should continue to deliver, evaluate and improve education and engagement programs aimed at promoting disaster resilience for individuals and communities.
- **Recommendation 11.1 Responsibility for local government disaster management capability and capacity**
    - State and territory governments should take responsibility for the capability and capacity of local governments to which they have delegated their responsibilities in preparing for, responding to, and recovering from natural disasters, to ensure local governments are able to effectively discharge the responsibilities devolved to them.
- **Recommendation 11.2 Resource sharing arrangements between local governments**
    - State and territory governments should review their arrangements for sharing resources between their local governments during natural disasters, including whether those arrangements:
        - provide sufficient surge capacity, and
        - take into account all the risks that the state or territory may face during a natural disaster.
- **Recommendation 19.3 Mandatory consideration of natural disaster risk in land-use planning decisions**
    - State, territory and local governments should be required to consider present and future natural disaster risk when making land-use planning decisions for new developments.

There is a legislative requirement under Common Law and the *Queensland Fire and Emergency Services Act 1990* for Local Government and residents as owners and occupiers of land to prevent fires escaping from their land and damaging property (Tran and Peacock, 2002). Councils and other landholders have an obligation to manage their land responsibly to prevent the loss of life or property and reduce the 'human' impacts of bushfires. Landholders are also required however to achieve this and still maintain their obligations under other legislation. Obligations under the *Nature Conservation Act 1992* for example require local authorities to protect and conserve rare or threatened species, biodiversity and ecological processes.

The *Fire and Emergency Services Act 1990* is the principle legislation that deals with lighting fires in the open in Queensland. The Act makes it illegal to light a fire without a 'Permit to Light Fire' issued by a fire warden under most circumstances.

The *Queensland Vegetation Management Act (1999)* regulates vegetation clearing. However, there are exemptions available to clear vegetation to develop and maintain fire breaks and fire control lines. The exemptions are found in the appendix of this report.

Whitsunday Regional Council

Whitsunday Regional Council developed a Bushfire Management Policy and Bushfire Management Plan in 2018. The purpose of the Policy is to define Council's intension in bushfire management, planning and on-ground actions. The purpose of the Council's Bushfire Plan is to identify high risk Council lots for bushfire risk and outline a program of works to better manage bushfire risk on Council managed lots. The Council Bushfire Management Plan lists community education and awareness concerning bushfire hazard as an important action and outcome.

Council has developed a local law which includes the regulation of fires. The Whitsunday Regional Council Local Law No. 3 (Community and Environmental Management) 2014 defines fire hazard;

- s16 Fire hazards
    - (1) This section applies where an authorised person forms the opinion that a fire hazard exists on an allotment.
    - (2) The authorised person may, by compliance notice given to the responsible person for the allotment, require the responsible person to take specified action to reduce or remove the fire hazard.

The Whitsunday Regional Council Subordinate Local Law No. 3 (Community and Environmental Management) 2014 provides more information on the regulation of fire hazard:

- s8 Fire hazards—Authorising local law, s 16(3)(b):
    - For section 16(3)(b) of the authorising local law, the following are declared to be fire hazards—
        - (a) live cinders or hot ash that is not enclosed in a fireplace so constructed as to prevent the escape of cinders or ash;
        - (b) a substantial accumulation of grass clippings that is liable to spontaneous combustion;
        - (c) dry vegetation that could be easily ignited or other flammable materials;
        - (d) abandoned sugar cane crops which have not been harvested for 24 months or more;
        - (e) accumulation of goods and materials that could ignite or cause danger to persons or property.

2.4 Bushfire Hazard and Risk

Bushfire Hazard

Bushfire hazard refers to the conditions which could support the presence of a fire. There are a number of methods that can be used to assess bushfire hazard. One commonly used bushfire hazard assessment tool is documented in the Queensland State Planning Policy 1/03. According to Risk Frontiers (2011) the Queensland Fire and Rescue Service have used the SPP 1/03 bushfire hazard methodology and the Interface Zone (I Zone) methodology to identify bushfire hazard areas. The I-Zone is where the urban-rural residential land use meets flammable vegetation (Risk Frontiers, 2011).

The Queensland State Planning Policy bushfire hazard process involves the assessment of vegetation, slope and aspect. Scores are allocated to vegetation, slope and aspect. The bushfire attribute scores are then added to determine the total hazard score.

The vegetation communities hazard assessment is shown in Table 1, the slope assessment is shown in Table 2 and the aspect assessment is shown in Table 3. The classification of bushfire hazard is shown in Table 4.

Table 1: *Vegetation communities assessment table used to determine vegetation hazard score.*

Vegetation Communities	Fire Behaviour	Hazard Score
Wet sclerophyll forest, tall eucalypts (>30m), with grass and mixed shrub understorey	Infrequent fires under severe conditions, flame lengths may exceed 40m, floating embers attack structures for 1 hour, radiant heat and direct flame are destructive for 30 minutes.	10
Paperbark heath and swamps, eucalypt forest with dry-shrub ladder fuels.	Fire intensity depends on fuel accumulation, but can be severe, with flame lengths to 20m, spot fires frequent across firebreaks, radiant heat and direct flame for 15 minutes.	8
Grassy eucalypt and acacia forest, exotic pine plantations, cypress pine forests, wallum heath	Fire intensity may be severe with flam lengths to 20m, but less attack from embers	6
Native grasslands (ungrazed), open woodlands, canefields	Fast moving fires, available to fire annually to 4 years. Usually no ember attack, radiant heat for >10m, duration < 2minutes.	5
Intact acacia forests, with light grass to leaf litter, disturbed rainforests.	Fires infrequent, usually burn only under severe conditions, relatively slow fires, usually little ember attack.	4
Orchards, farmlands, kikuyu pastures	Fires very infrequent, slow moving, may be difficult to extinguish, frequent fire breaks.	2
Grazed grassland, slashed grass	Grazing reduces intensity and rate of spread of fire, duration < 2 minutes.	2
Desert lands (sparse fuels), mowed grass	Gaps in fuel, usually slow fire spread.	1
Intact rainforest, mangrove forest, intact riverine rainforest	Virtually fire proof.	0

Table 2: *The slope assessment table used to determine the slope hazard score.*

Slope	Hazard Score
Gorges and Mountains (>30%)	5
Steep Hills (20% - 30%)	4
Rolling Hills (10% to 20%)	3
Undulating (5% to 10%)	2
Plain (0% to 5%)	1

Table 3: *The aspect assessment table used to determine the aspect hazard score.*

Aspect	Hazard Score
North to North-west	3.5
North-west to West	3
West to South	2
North to East	1
East to South and all land under 5% slope	0

Table 4: *The determination of bushfire hazard using the Queensland SPP 1/03 system.*

Total Hazard Score	Severity of Bushfire Hazard
13 or greater	High
6 to 12.5	Medium
1 to 5.5	Low

Fuel load is a main contributor to bushfire hazard (Middelmann, 2007). There are a number of methods used to estimate, measure and assess fuel loads. Hines *et al.* (2010) have developed a system of measuring forest fuel loads in Victoria. The method developed by Hines *et al.,* (2010) for estimating fuel loads is based on separating the forest into fuel layers and then estimating or measuring the potential fuel within each of these layers. The amount of fuel contained in these layers is measured in terms of tonnes per hectare.

More recently the CSIRO have developed a slightly different approach to determining and mapping bushfire hazard (Leonard, 2014). The methods developed by Leonard *et al.,* (2014) have been used to develop the current Queensland bushfire hazard mapping. The CSIRO method uses vegetation type, slope and estimated fuel load to allocate land to 20 Vegetation Hazard Classes.

The Queensland Fire Emergency Service (QFES) have produced bushfire hazard rating maps for Queensland. Bushfire hazard is rated as either low, medium or high based on vegetation type, aspect, topography and climate. The QFES bushfire hazard rating maps are usually produced at a scale of 1:250,000 or 1:100,000. Bushfire hazard areas rated as low on the QFES maps mostly relate to rainforest areas, while high risk areas relate to Eucalypt and wattle areas. The bushfire hazard maps can be a useful guide to bushfire hazard and the likely risk of bushfire occurring in a locality. However, these bushfire hazard maps may not be accurate on properties less than 20ha. Land with a high or medium bushfire hazard rating should have some bushfire management plan or process in place.

Bushfire Risk

Bushfire risk refers to the likely occurrence or frequency of a bushfire. Middlemann, (2007) states that “the likelihood of bushfire hazard can be summarised in terms of the probability of a fire arriving at a point in the landscape and the intensity of the fire at that point “. Risk can be increased due to a number of factors including a high bushfire hazard and proximity to ignition sources such as roadsides and populated areas. Bushfire planning and mitigation measures can reduce bushfire hazard and risk.

Local governments are involved in bushfire risk reduction measures such as the development of local laws regulating fires, development planning, development of disaster management plans and implementation of bushfire mitigation measures (Middlemann, 2010).

There are a number of methods used to measure risk. The NSW Rural Fire Service (2008) have developed a matrix to describe bushfire risk (Figure 5). The NSW Rural Fire Service risk matrix requires the determination of the likelihood of a bushfire occurring and the likely consequences.

Consequence / Likelihood	Minor	Moderate	Major	Catastrophic
Almost certain	High	Very High	Extreme	Extreme
Likely	Medium	High	Very High	Extreme
Possible	Low	Medium	High	Very High
Unlikely	Low	Low	Medium	High

Figure 5: *The determination of bushfire risk (NSW Rural Fire Service 2008).*

The likelihood of a bushfire occurring will depend largely on the bushfire hazard. The consequence of a bushfire occurring at a given location will depend on the environmental values and development present (NSW Rural Fire Service, 2008).

New bushfire fire line intensity mapping

In 2019, the Queensland government released the Bushfire Resilient Communities Technical Reference Guide for the State Planning Policy. The Bushfire Resilient Communities report outlines a revised method for assessing bushfire hazard. In addition, the report provides technical guidance on procedures for:

- reviewing bushfire prone area mapping
- undertaking a Bushfire Hazard Assessment (BHA)
- undertaking a Vegetation Hazard Class Assessment
- calculating asset protection zone provisions, and,
- preparing a Bushfire Management Plan and Landscape Maintenance Plan (QFES, 2019).

The new method of determining and mapping bushfire hazard is centred on the concept of Fireline intensity. According to QFES (2019), "potential fire line intensity is a function of fire weather severity (measured by the Forest Fire Density Index or FFDI), landscape slope and fuel load based on classified vegetation communities according to the method described by the CSIRO (figure 6). Fireline intensity is a measure of energy released from the flame or combustion zone, one of whose sides is a unit length of fire front (measured in kilowatts per metre of flaming front) (QFES, 2019). According to QFES (2019) Forest Fire Danger Index (FFDI) is the most widely used fire weather index in Australia and forms part of many operational systems and instruments, such as AS3959 (Standards Australia, 2009). The bushfire hazard maps produced by the Queensland are now expressed in terms of "potential Fireline intensity". The bushfire intensity levels are medium (4,000 – 20,000 kW/m), High (20,000 -40,000 kW/m), Very high (40,000+ kW/m) (QFES, 2019).

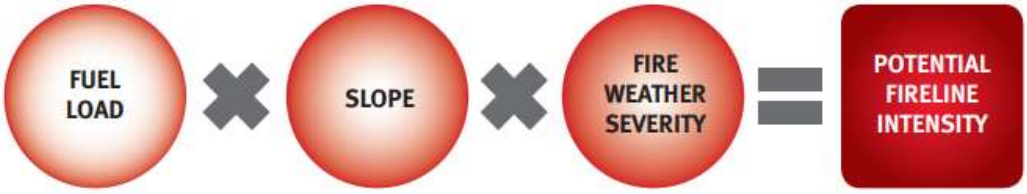

Figure 6. The attributes used to calculate potential Fireline intensity.

Airlie Beach Bushfire Hazard

The Queensland State government have mapped the bushfire hazard (Fireline intensity) in the Airlie Beach area (Figure 7). The bushland through most of Conway National Park and the north facing slopes have a medium to very high bushfire hazard.

The Conway National Park is periodically burnt by Queensland National Parks and Wildlife service every 3 to 12 years depending on fuel loads in mosaic burn patterns and vegetation types.

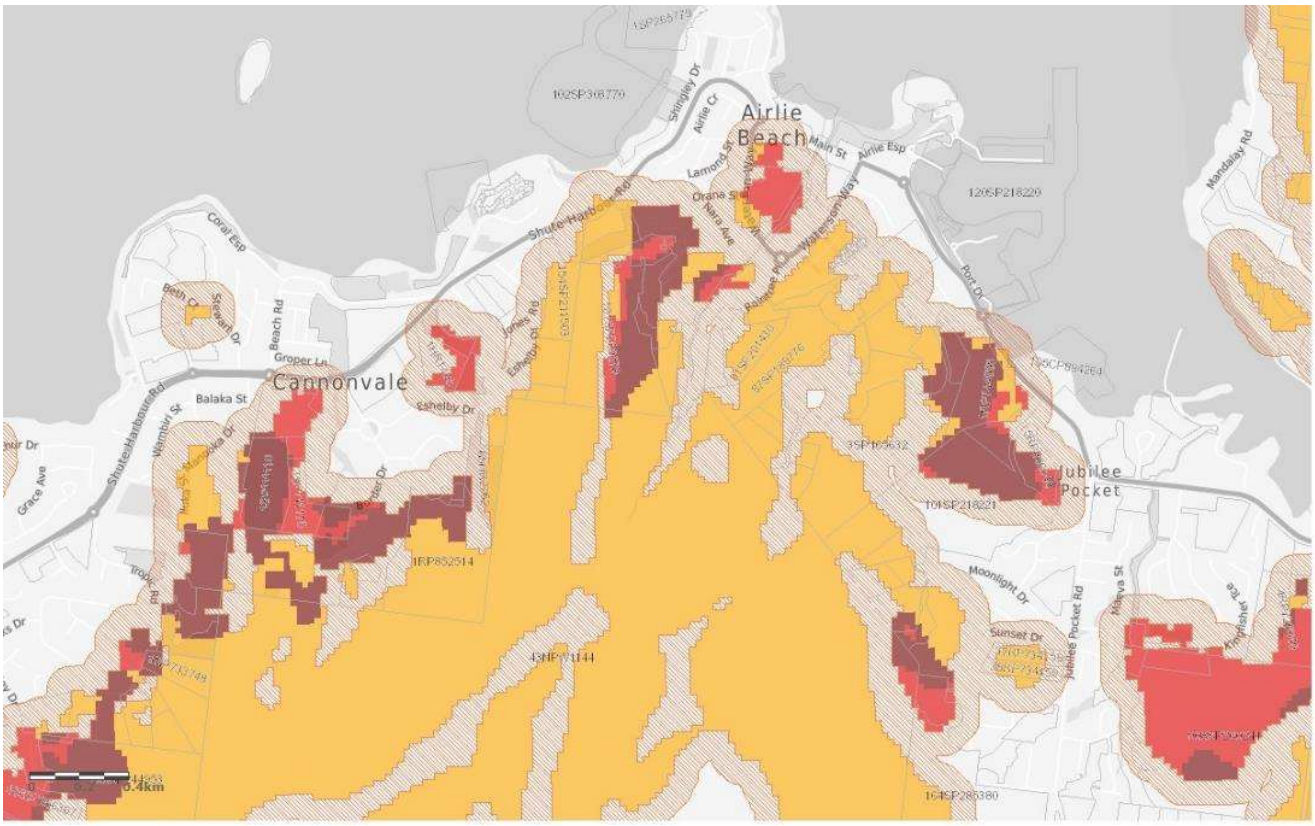

Figure 7: *Sowing the bushfire hazard (Fireline intensity) in the Airlie Beach area (Red = High hazard, Orange = Medium hazard)*

Source: https://spp.dsdip.esriaustraliaonline.com.au/geoviewer/map/planmaking).

2.5 Bushfire Management Guidelines

Bushfire Guidelines for Regional Ecosystems

The regional ecosystem characteristics can provide information which can guide bushfire management and planning. Council is partially included in the Central Queensland Coast and Northern Brigalow Belt bioregions. There are 83 individual regional ecosystems in the Central Queensland Coast bioregion and 172 regional ecosystems found in the Northern Brigalow Belt bioregion.

The type of vegetation community, it's fire requirements and hazard can be used for bushfire planning. Bushfire management advice for a selected number of regional ecosystems are listed in Table 5. The bushfire management advice provided by the Queensland State government for each regional ecosystem is found at: https://publications.qld.gov.au/dataset/redd/resource/c77196df-7af9-4c09-ac88-256867c39806

Table 5: *Showing the bushfire management advice for selected regional ecosystems in the Airlie Beach Area.*

Bioregion	Regional Ecosystem	Description	Bushfire Advice
CQC	8.1.1	Mangrove closed forest of marine clay plains and estuaries	ISSUES: Scorching within the supra-littoral margin, particularly when this ecotone merges into flammable vegetation such as woodlands and forests of Melaleuca spp.
CQC	8.3.5	Eucalyptus platyphylla and/or Lophostemon suaveolens and/or Corymbia clarksoniana woodland on alluvial plains	SEASON: Vary; winter, late winter and storm burns. INTENSITY: Moderate. INTERVAL: No more frequent that 3 - 5 years except were weed control takes priority (i.e. within rehabilitation zones). STRATEGY: Aim to burn no more that 70 % of any given area preferably less. ISSUES: Fire regimes required by this ecosystem will be largely dependant on the level and type of weed infestations present, and/or the level of vine forest emergence present. The implications of grazing either domestic and/or feral animals also needs consideration. In areas historically subjected to cattle grazing (lack of fire over long periods) or frequent burning, this woodland may have significant gaps in canopy layering. Fire management should consider the long term goal of maintaining the woodland structure.
CQC	8.3.10	Semi-evergreen to evergreen notophyll vine forest, on gently to moderately-sloping alluvial fans adjacent to ranges	ISSUES: Fire management in adjacent areas may need to take into consideration the emergence of this ecosystem into adjacent sclerophyll communities.
CQC	RE 8.12.12	Eucalyptus tereticornis and/or Corymbia spp. and/or E. platyphylla and/or Lophostemon suaveolens woodland to open forest on hill slopes on Mesozoic to Proterozoic igneous rocks	SEASON: 8.12.12a: Vary; winter, late winter and storm burns. 8.12.12b: Any time providing sufficient soil moisture is present (active growing season). INTENSITY: 8.12.12a and b: Low to moderate. INTERVAL: 8.12.12a and d: 3 - 5 years. 8.12.12b: 4 - 8 years. STRATEGY: 8.12.12a, b and d: Aim to retain about 25 % unburnt. ISSUES: 8.12.12a and d: Emphasis should be placed on the general principles of mosaic burning, and diversity of fire types. Care should be taken to maintain tree hollows and also to maintain ground litter and fallen timber habitats. 8.12.12b: Care should be taken to maintain tree hollows and also to maintain ground litter and fallen timber habitats.
CQC	8.12.18	Semi-evergreen notophyll/microphyll to complex notophyll Argyrodendron spp. vine forest +/- Araucaria cunninghamii, of foothills and uplands on near-coastal ranges and islands, on Mesozoic to Proterozoic igneous rocks	ISSUES: Fire sensitive.
CQC	8.12.26	Corymbia tessellaris and/or Eucalyptus tereticornis open forest on hill slopes of islands and near coastal areas, on Mesozoic to Proterozoic igneous rocks, and Tertiary acid to intermediate volcanics	SEASON: Late winter burns are indicated although storm burning could be trialled providing results were carefully monitored. INTENSITY: Moderate to high. INTERVAL: 3 - 5 years. ISSUES: In many areas, vine forest understorey's have developed to the point where it is unlikely the open forest structure can be regained and ultimately the area will develop into vine forest. There is evidence to suggest that low to moderate fire will enhance vine forest emergence.

Other Regional Fire Management Guidelines

The Reef Catchments Natural Resource Management Group together with the Clarke Connors Range Bush Fire Consortium developed fire management guidelines for the Central Queensland coast region (Reef Catchments, 2009). The fire guidelines have been developed for 12 landscape types. For each of the 12 landscape types recommendations are made for fire frequency, fire intensity, season and whether mosaic burns are required. The purpose of the guidelines is to reduce unplanned burns (wildfires). The landscape types and the recommended guidelines are shown in Table 6.

Table 6: *Clarke - Connors range fire management guidelines.*

Landscape Type	Fire Frequency	Fire Intensity	Preferred Season for Hazard Reduction	Mosaic Burning
Mangroves and estuaries	Not burnt	Nil	Nil	No
Beaches and foreshores	Not burnt	Nil	Nil	No
Hind dunes	Not burnt	Nil	Nil	No
Riverine and wetlands	Not burnt	Nil	Nil	No
Alluvial flat country	Every 5 years	Medium	Winter	50%
Grassy woodlands and open forests	Every 5 years	Medium	Winter	50%
Tall wet eucalypt forests	Every 3-5 years	Medium	Winter	50%
Eucalypt forest and woodlands on hills	Every 5 years	Medium	Winter	25%
Rainforest and vine thickets	Not burnt	Nil	Nil	No
Island and rocky headlands	Every 3-5 years	Medium	Winter	50%

The Queensland State government have developed Planned Burn Guidelines for Central Queensland Coast Bioregion of Queensland (DNPRSR, 2012). The planned burn guidelines are used to plan and implement prescribed burns in National Parks and State land. The State government guidelines are also applicable to Council owned and managed bushland lots.

2.6 Whitsunday Bushfire Management Planning Framework

The bushfire management and planning structure and workflow between organisations is reflected in Figure 8. Council has a Bushfire Management Policy and a Bushfire Management Plan to guide the management of bushfire hazard and risk on Council managed lots.

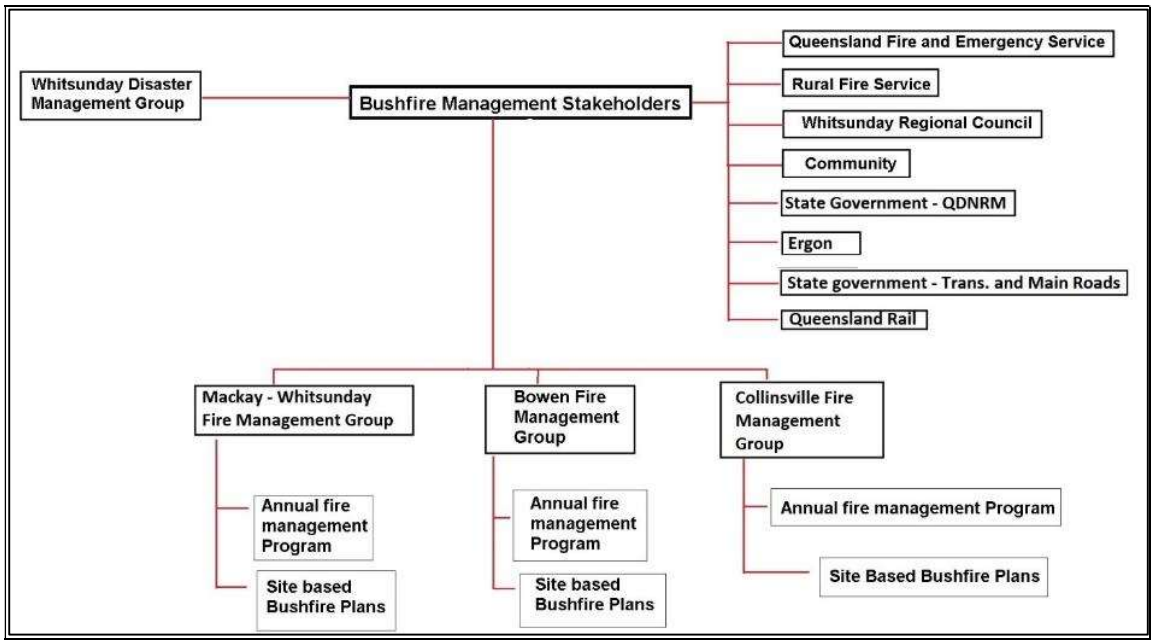

Figure 8: *The bushfire management and planning framework.*

2.7 Bushfire Mitigation and Management Strategies

There are a number of strategies that can be undertaken to reduce bushfire hazard and risk. Table 7 lists the bushfire risk factors and some of the mitigation measures that can be used to reduce the occurrence of bushfires.

Table 7: *Common bushfire mitigation strategies.*

Bushfire Factor	Mitigation Strategy or Measure
Litter build up from Eucalypt vegetation communities	• Obtain a permit to light fire from the local fire warden to reduce fuel loads. • Liaise with a local Rural Fire Brigade to undertake a fuel reduction burn. Subsequent burns may need to be conducted every 3 years. • Clear juvenile gum tree samplings from areas near the house and property. • Gum trees (such as Iron barks and Blue gums) should be removed from within 30 m of the house and properties. This may require an application to Council for permission. If in doubt contact the Council for advice.
Grass build up	• Grass species such as Guinea grass (*Megathyrsus maximus*) respond well to fire. This species needs to be chemically controlled, kept short through mowing or slashing, or grazed. • Revegetate areas with rainforest species to shade out grass and therefore reduce fuel loads. • Grass should be kept to a minimal height around houses and property using mowing, brush cutting or use of approved herbicides depending on site conditions. • Establish separation zones between buildings and grassy fuel by installing hard areas e.g. paving and gravel etc.
Aspect	• Northerly aspects are worse for fires. The siting or positioning of houses on a property should consider aspect. • The head of gullies should also be avoided • East to south facing slopes generally have a low hazard rating.
Slope	• Updraughts assist fire movement upslope. There should be a sufficient distance down slope of houses and properties that are free of fire prone vegetation. • Slopes above 30% have a higher hazard score opposed to flat to undulating land. • Installation of hard areas of gravel and paving may be necessary. • To reduce erosion on steep slopes, these areas could be revegetated using rainforest shrubs or low growing grasses that are easily controlled and are less flammable.
Climate	• Hot dry climates assist fire. Beware of climatic conditions that increase fire risk severity such as the dry season in the Whitsunday's, especially between the months of July and December.
Proximity to land uses that use fire	• Fire breaks could be used to reduce spread of fire, provide access for fire fighters, a secure line from which to burn from or back burn from.
Vegetation communities that have a high fire risk	• Fire breaks could be used to reduce the spread of fire. The SPP recommends that perimeter roads be constructed that are cleared for 20 m AND comply with local government standards. • Fire maintenance trails should only be accepted if it is not practicable to provide firebreaks in the form of a road due to topographic conditions or vegetation constraints. • The construction of the fire breaks should consider plants protected under the *Nature Conservation Act (1992)* or communities protected under the Vegetation Management legislation. • Site the house in the lowest risk area on the property. • For lots greater than 2500m2, buildings and structures should be set back from hazardous vegetation by at least 1.5 times the height of the canopy vegetation (particularly if they are Eucalypt) or a minimum of 10 m. • Retention of rainforest in drainage lines and creeks will assist in reducing bushfire risk. • Design subdivisions without cul-de-sacs and provide access for a conventional drive vehicle (e.g. fire engine).

2.8 Previous Bushfire Management

This Bushfire Plan is the first formal Bushfire Plan for the Airlie Beach area. The QPWS has a Fire Management Plan for Conway National Park. The following is a brief summary of previous planned and un-planned burns in the Airlie Beach area:

- Unplanned-
    - Airlie Beach – Jubilee Pocket – November 2018 (flare landing in bushland starts a fire)
    - Airlie Beach – Jubilee Pocket – November 2020 (fire possibly starting from a cigarette near Shute Harbour Road footpath)

Figure 9. The bushfire in November 2020.

2.9 Community Consultation

The Whitsunday Regional Council conducted a community meeting at the Jubilee Pocket PCYC on the 1st of December 2021. The issues raised at this meeting were:

- Possible use of a Local Law for “dangerous” fire vegetation, or expand the use of the current local law.
- Need to explore possible ways to use the Planning scheme to reduce the risk of buildings being built in locations which put the occupants at risk of being impacted by bushfire.
- Explore the issue of large lots being “land banked’ for future development, but the owners not managing bushfire hazard adequately.
- The use of aerial “water bombing” delivered salt-water which may have a detrimental impact on the soil and vegetation. However, there may not be any readily available alternatives to a suitable water source.
- The clearing of rainforest on some of the large lots of land on the hill behind Airlie has created a bushfire hazard. The large lots now grow guinea grass and other long grass species which present a hazard during the dry season.
- The clearing of rainforest on the steep slopes for future residential and commercial development on smaller lots has meant that a number of smaller lots have become overgrown with long grass and present a bushfire hazard in the dry season.
- The accumulation of green waste along property boundaries presents a fire risk.
- The expansion of the weed tree Leucaena on private and public land introduces additional fuel to the hill and could be managed better.
- The development of fire breaks on the larger lots may not be practical because of the slope, landslip hazard and the risk that the fire breaks could divert stormwater into areas causing other issues.

3. Management Plan

3.1 Bushfire Plan Goals

The goals of this Bushfire Management Plan are:

- To protect life and property as a priority then ensure the bushfire management practises maximise biodiversity values.
- To ensure all stakeholders support a common bushfire management direction.
- To pro-actively manage the bushfire hazard within and surrounding Airlie Beach.
- To develop and maintain good relationships between the stakeholders and landholders and encourage cooperative approaches to manage bushfire hazard in the area.

3.2 Stakeholder General Roles and Responsibilities

The general roles and responsibilities for bushfire management, planning and mitigation are summarised in Table 8.

Table 8: *The main tasks for each stakeholder.*

Task	Council	Rural Fire	QFES	QDNRM	QPWS	Landholder
Legal control of the fire	✓	✓				✓
Conduct hazard reduction burns		✓				✓
Applying for permits						✓
Supervising the hazard reduction burn*		✓	✓		✓	✓
Informing the community	✓	✓				
Monitoring fuel loads		✓				
Maintaining the fire breaks						✓
Developing and updating the bushfire plan	✓	✓	✓		✓	
Reporting hazard reduction burns		✓	✓			
Regulating and control of illegal dumping	✓					
Manage accumulation of green waste	✓					

- * Note: Rural Fires and QFES will only supervise planned burns where they are formally involved.

3.3 Bushfire Management Areas and Mitigation Measures

The landscape of the Airlie Beach area needs to be prioritised in terms of bushfire management and planning. Areas close to residential areas need a higher level of monitoring and fuel management than areas further away. The Victorian state government has developed a system of prioritising bushfire management activities (DSE, 2012). The Victorian government have developed fire management zones as a means of prioritising land areas for bushfire management:

- APZ – Asset Protection zone - Areas close to residential areas – high priority for management.
- BMZ – Bushfire Moderation zone – aim to achieve asset protection and achieve some ecological outcomes.
- LMZ – Landscape management zone – planned burns are primarily undertaken for fuel reduction to maintain ecological processes.
- PBEZ – Planned burning exclusion zone – no fire permitted.

Each resident should be aware of the bushfire hazards on their property and adjacent to their property. The bushfire hazard on the Unallocated State land will be managed and monitored by the Queensland Department of Resource Management.

There are 27 fire management areas identified for the Airlie Beach Fires Area (Figure 10). The bushfire management areas have been classified for bushfire hazard (Figure 11).

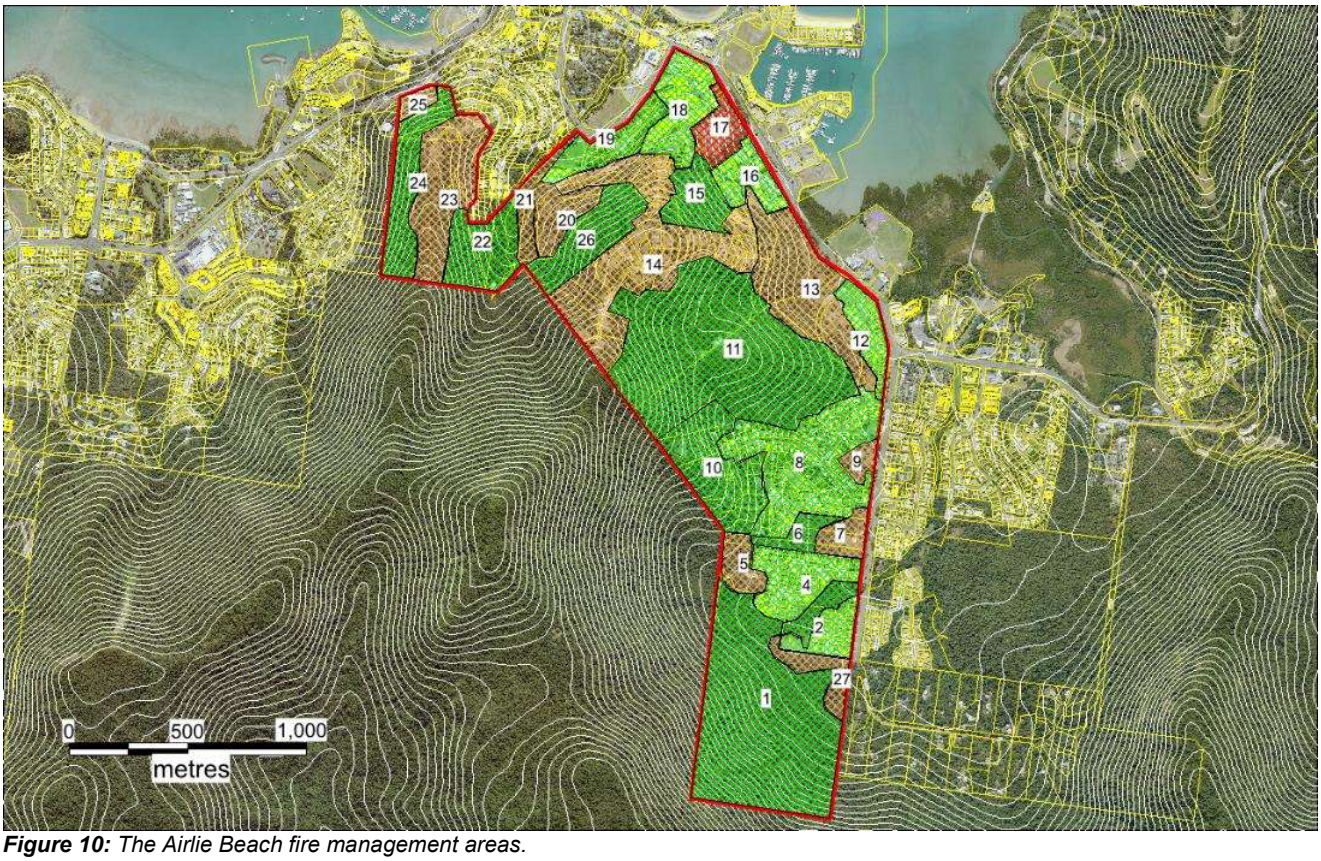

Figure 10: *The Airlie Beach fire management areas.*

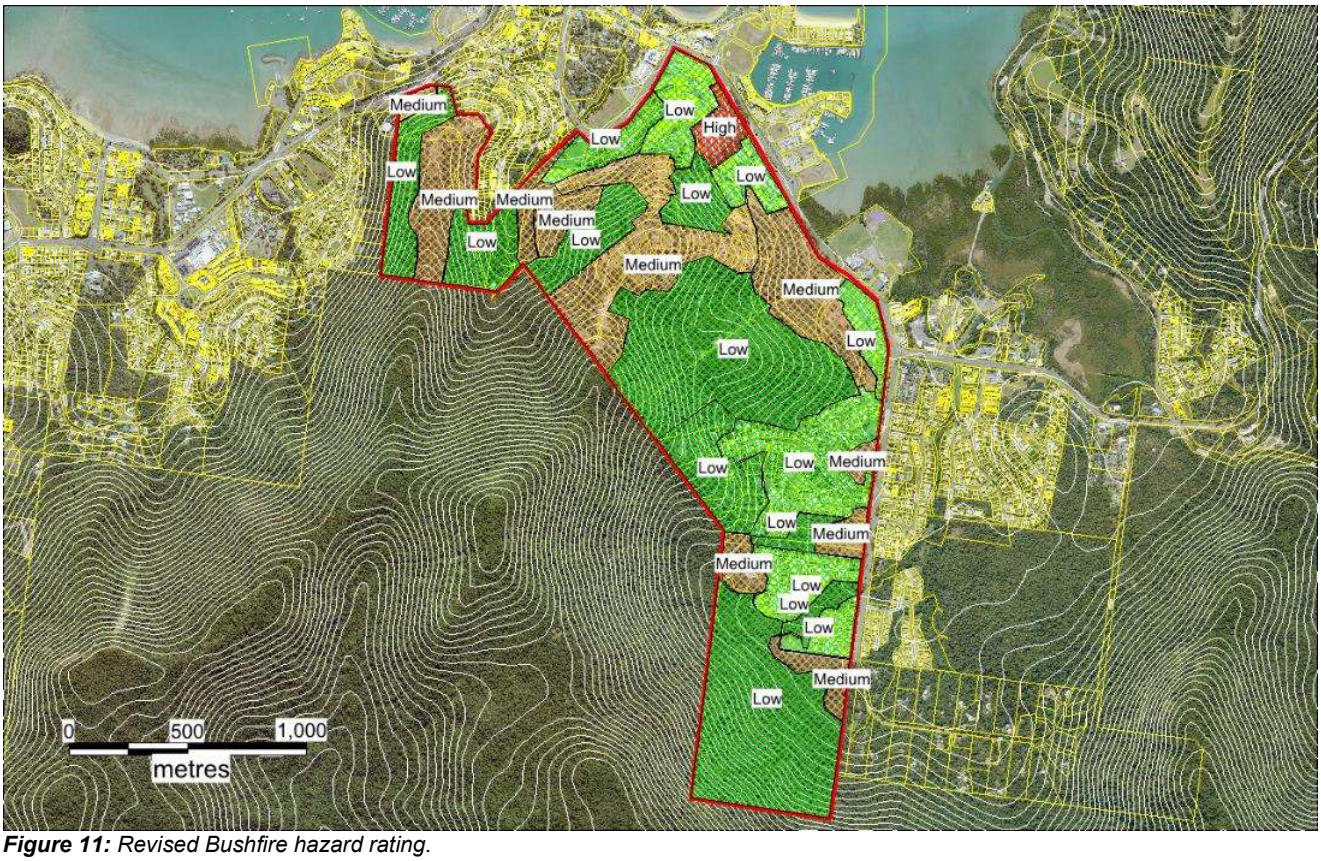

Figure 11: *Revised Bushfire hazard rating.*

The priority for bushfire management activities have been reviewed to reflect the bushfire hazard rating.

The majority of the Airlie Beach area has been mapped as “Bushfire Moderation Zone” (BMZ) and ” Planned Burning Exclusion Zone (PBEZ) (Figure 12). The LMZ areas are land units where planned burns may be necessary to reduce fuel loads and maintain ecological processes. However, it may be better to allow these areas to transition more to sub-tropical notophyll rainforest and exclude fire. The fire management areas can be further summarised as:

- Red = APZ (high hazard and high priority),
- Orange = BMZ (medium hazard and medium priority)
- Yellow = LMZ (medium hazard and low - medium priority)
- Green = PBEZ (low-medium hazard and lower priority).

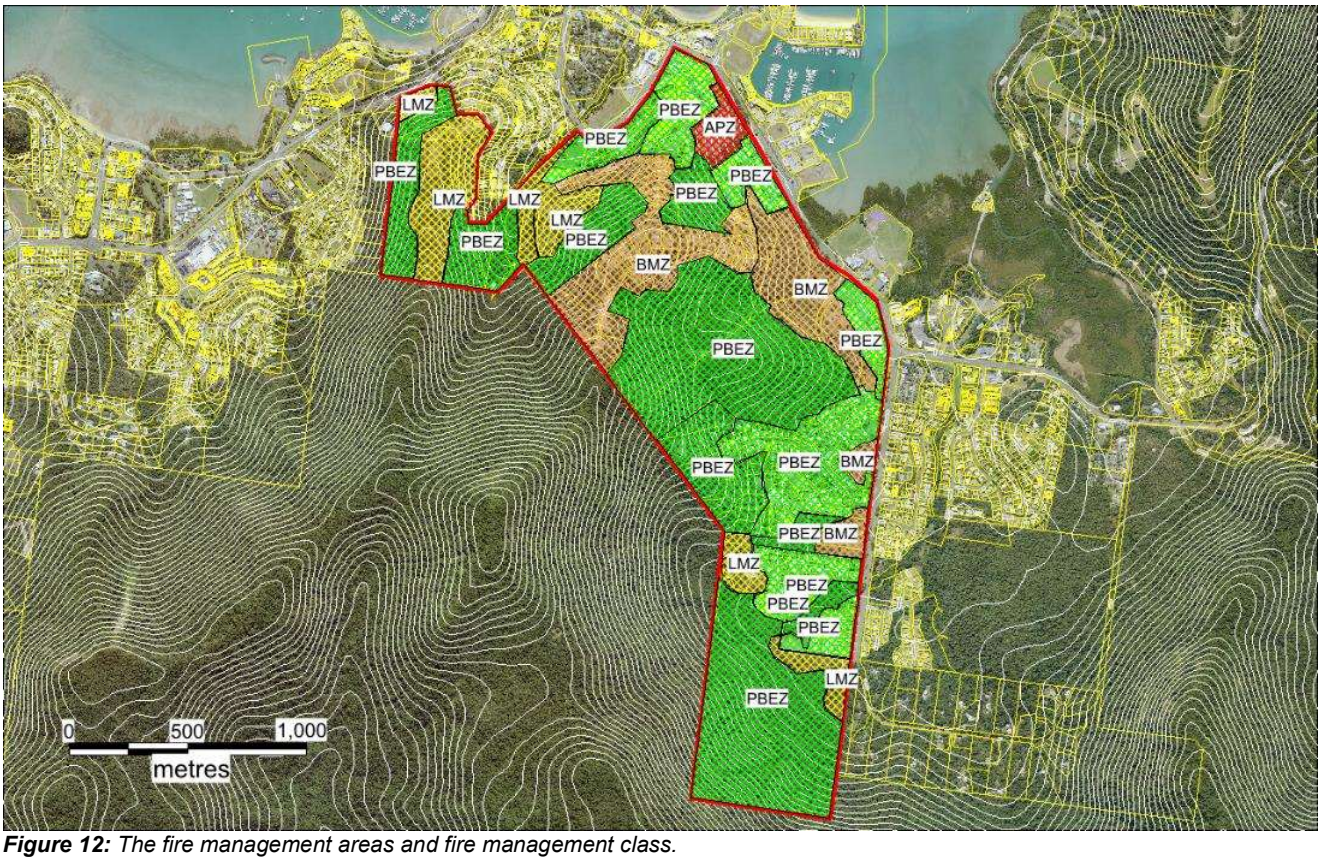

Figure 12: *The fire management areas and fire management class.*

The BEZ management units have the potential for wildfires to threaten residential properties. The bushfire hazard, risk to property and possible bushfire mitigation measures are suggested in table 9.

Table 9: *The bushfire hazard and mitigation measures for fire management units in the Airlie Beach area.*

Fire Area	Hazard	Zone	Mitigation Options
1	Low	PBEZ	Mostly rainforest. Not to be burnt.
2	Low	PBEZ	Urban
3	Low	PBEZ	Mostly rainforest. Not to be burnt.
4	Low	PBEZ	Urban
5	Med	LMZ	Encourage transition to rainforest. Remove eucalypt regrowth on forest edge. Reduce guinea grass on forest edge- encourage natural rainforest regeneration.
6	Low	PBEZ	Mostly rainforest. Not to be burnt.
7	Med	BMZ	Possible future urban development. Reduce long grass by slashing or mowing. Reduce eucalypt regrowth.
8	Low	PBEZ	Urban
9	Low	BMZ	Possible future urban development. Reduce long grass by slashing or mowing. Reduce eucalypt regrowth.
10	Low	PBEZ	Mostly rainforest. Not to be burnt.
11	Low	PBEZ	Mostly rainforest. Not to be burnt.
12	Low	PBEZ	Urban
13	Med	BMZ	Landholder be encouraged to create a cleared and mowable buffer between footpath area and bushland on lower slope. Possible future urban development. Reduce long grass by slashing or mowing. Reduce eucalypt regrowth.
14	Med	BMZ	Main issues are increasing area of guinea grass and eucalypt regrowth.

			Reduce long grass. Reduce eucalypt regrowth. Encourage transition to rainforest where areas cannot be maintained.
15	Low	PBEZ	Mostly rainforest. Not to be burnt.
16	Low	PBEZ	Urban
17	High	APZ	Possible future urban development. Once developed, fire hazard will reduce. Landholder be encouraged to create a cleared and mowable buffer on lower slope. Reduce long grass by slashing. Reduce eucalypt regrowth.
18	Low	PBEZ	Urban
19	Low	PBEZ	Urban
20	Med	LMZ	Encourage transition to rainforest. Remove eucalypt regrowth on forest edge. Reduce guinea grass on forest edge- encourage natural rainforest regeneration.
21	Med	LMZ	Encourage transition to rainforest. Remove eucalypt regrowth on forest edge. Reduce guinea grass on forest edge- encourage natural rainforest regeneration.
22	Low	PBEZ	Mostly rainforest. Not to be burnt.
23	Med	LMZ	Potential urban development. Encourage transition to rainforest. Remove eucalypt regrowth on forest edge. Reduce guinea grass on forest edge- encourage natural rainforest regeneration. Maintain a buffer where possible which has low maintained grass.
24	Low	PBEZ	Mostly rainforest. Not to be burnt.
25	Med	LMZ	Potential residential expansion area. Encourage transition to rainforest. Remove eucalypt regrowth on forest edge. Reduce guinea grass on forest edge- encourage natural rainforest regeneration.
26	Low	PBEZ	Mostly rainforest. Not to be burnt.
27	Med	LMZ	Possible future urban development area. Encourage transition to rainforest. Remove eucalypt regrowth on forest edge. Reduce guinea grass on forest edge- encourage natural rainforest regeneration.

3.4 Hazard Reduction Burning Frequencies and Methods

The land use within the Airlie Beach area does not lend itself to the use of planned burns to manage the fuel loads and bushfire risk. The population density and location of the large vacant lots makes it difficult to conduct planned burns in a safe manner. It will more advisable to manage the vegetation using other methods such as slashing and mulching where possible. For information on prescribed burn frequencies for vegetation types please refer to “Fire Management Guidelines” by Reef Catchments 2009. The proposed planned burn frequencies for each vegetation type are shown in Table 10.

Table 10: *Vegetation communities and hazard reduction burn frequencies.*

Vegetation Community	RE	Hazard Reduction Burn Frequency	Fire Management Areas	Fire Zones
Eucalyptus platyphylla and/or Lophostemon suaveolens and/or Corymbia clarksoniana woodland on alluvial plains	8.3.5	No planned burns recommended		
Semi-evergreen to evergreen notophyll vine forest, on gently to moderately-sloping alluvial fans adjacent to ranges	8.3.10	Not burnt		
Eucalyptus tereticornis and/or Corymbia spp. and/or E. platyphylla and/or Lophostemon suaveolens woodland to open forest on hill slopes on Mesozoic to Proterozoic igneous rocks	8.12.12	No planned burns recommended	5, 9, 13, 23	LMZ, BMZ
Semi-evergreen notophyll/microphyll to complex notophyll Argyrodendron spp. vine forest +/- Araucaria cunninghamii, of foothills and uplands on near-coastal ranges and islands, on Mesozoic to Proterozoic igneous rocks	8.12.18	Not burnt	1,3,6,10, 11, 14, 20, 22, 24	PBEZ
Corymbia tessellaris and/or Eucalyptus tereticornis open forest on hill slopes of islands and near coastal areas, on Mesozoic to Proterozoic igneous rocks, and Tertiary acid to intermediate volcanics	8.12.26	No planned burns recommended		
Urban landscape	Nil	No planned burns	2, 4, 8, 12, 16, 18, 19,	PBEZ

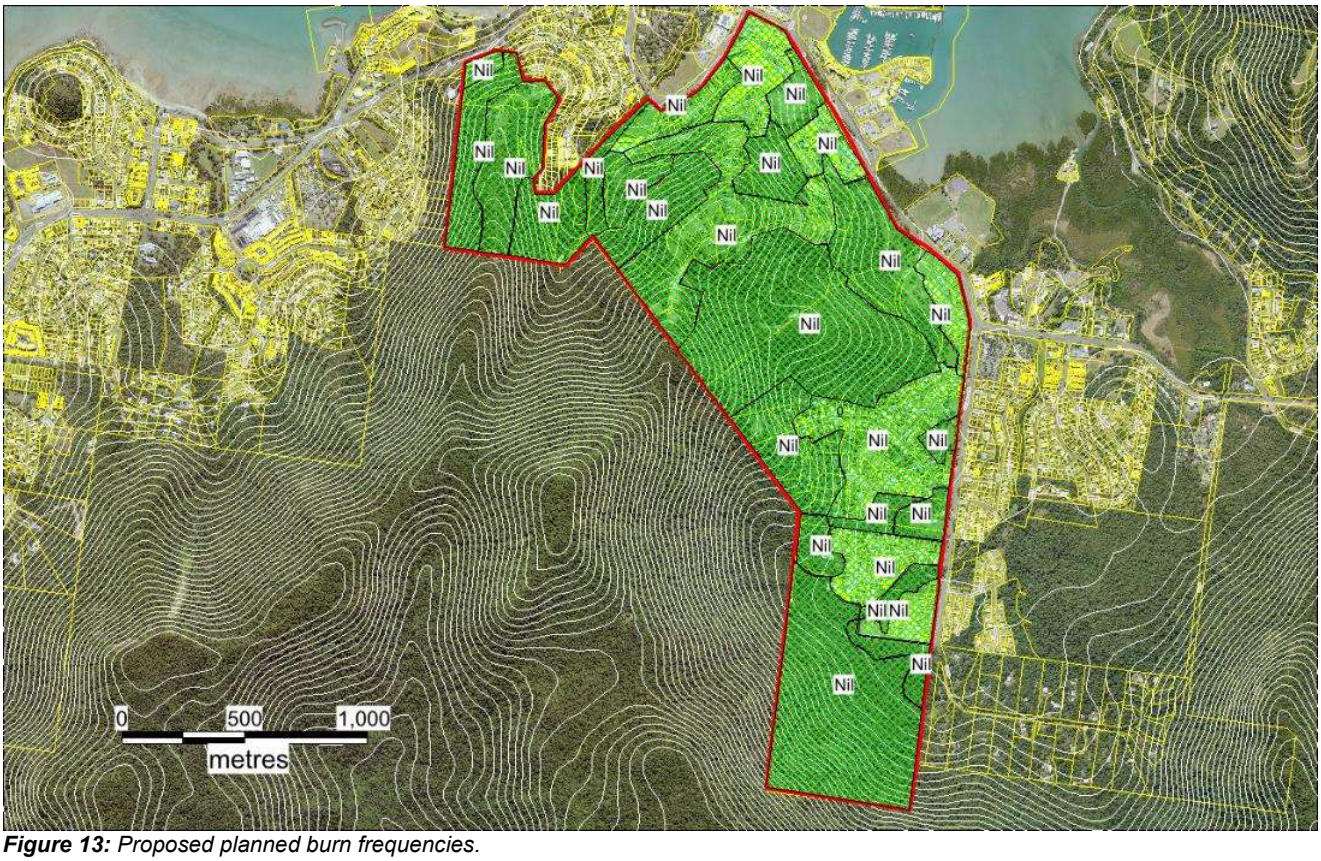

Figure 13: *Proposed planned burn frequencies.*

3.5 Schedule of Bushfire Management and Mitigation Tasks

The main tasks and actions identified for the Airlie Beach area can be grouped under prevention and mitigation, and regulation:

- Prevention and mitigation
    - The need to explore mechanisms in the Council Planning Scheme to slow the clearing of rainforest on development lots to reduce the incidence of vacant lots developing a fire risk to neighbourhoods. An option may be to amend Planning Scheme Provision 6.5.4 to require a bushfire management plan to have regard to pre- and post development or development approval.
    - The develop a process for the treatment of the tree weed Leucaena in the area. Leucaena increases the fuel on the hill and burns readily.
    - Landholders will be encouraged to develop a bushfire buffer on their lots where long grass is managed to reduce bushfire hazard. The bushfire buffer could involve the cutting of long grass to maintain it to a height less than 0.5m in the dry season in particular to reduce fuel load and reduce bushfire hazard.
    - It may be possible for some areas of long grass on private property to be revegetated with rainforest species to create a “green buffer” to reduce the possible future spread of bushfire on the hill.
    - Landholders with larger lots may be able to develop short access tracks into the lots to assist with future bushfire fighting. It may not be feasible to develop 4wd access tracks into the larger lots without careful assessment of the stormwater management issues and landslip issues.
- Regulation
    - The Council should explore the use of Local Law 3 Community and Environment and develop a mechanism to issue notices to landholders who do not manage bushfire risk appropriately on their land. This may include the expansion of the overgrown notices process to larger lots of land adjacent to residential areas.

The schedule of annual bushfire management and maintenance tasks is summarised in Table 11.

Table 11: *Schedule of annual bushfire management actions.*

No	Task	Who is responsible	Timing
1	Assess fuel loads	Landholders	May
2	Implement hazard reduction actions. This may include reducing long grass, reduce eucalypt regrowth. Maintain buffer.	Landholders	April, June, August, November
3	Slash fire lines/fire breaks	Landholders	May and October
4	Inspect condition of fire lines	Landholders	May
5	Earthworks for fire lines/breaks	Landholders	As required
6	Coordinate planned burns		No planned burns for this area
7	Community awareness	QFES and Whitsunday Council	Use of media in May
8	Seeking fire permit	Landholders	As required
9	Vegetation regulation inspections – overgrown lots	Whitsunday Council	April, July, October

The draft schedule of planned burns for the various fire management areas are shown in Table 12.

Table 12: *The proposed timing of future planned burns for Airlie Beach management areas.*

Fire Management Area	Description	Zone	Planned Burn Frequency	2022	2023	2024	2025	2026	2027	2028	2029	2030
1	Rainforest - upland	PBEZ	Nil									
2	Urban	PBEZ	Nil									
3	Rainforest - waterway	PBEZ	Nil									
4	Urban	PBEZ	Nil									
5	Rainforest- eucalypt	LMZ	Nil									
6	Rainforest - upland	PBEZ	Nil									
7	Cleared – eucalypt woodland	BMZ	Nil									
8	Urban	PBEZ	Nil									
9	Cleared – eucalypt woodland	BMZ	Nil									
10	Rainforest - upland	PBEZ	Nil									
11	Rainforest - upland	PBEZ	Nil									
12	Urban	PBEZ	Nil									
13	Rainforest- eucalypt	BMZ	Nil									
14	Cleared - residential	BMZ	Nil									
15	Rainforest- eucalypt	PBEZ	Nil									
16	Urban	PBEZ	Nil									
17	Cleared – long grass	APZ	Nil									
18	Urban	PBEZ	Nil									
19	Urban	PBEZ	Nil									
20	Rainforest- eucalypt	LMZ	Nil									
21	Rainforest- eucalypt	LMZ	Nil									
22	Rainforest - upland	PBEZ	Nil									
23	Cleared – eucalypt woodland	LMZ	Nil									
24	Rainforest - upland	PBEZ	Nil									
25	Cleared – eucalypt woodland	LMZ	Nil									
26	Rainforest - upland	PBEZ	Nil									
27	Cleared – eucalypt woodland	LMZ	Nil									

The development of fire breaks, fire control lines and buffers are a landholder's responsibility. Ideally the breaks should be created along property boundaries, or along contours, or between different forest types (e.g. rainforest- Eucalypt forest). Fire breaks or control line tracks located on steep slopes will be subject to erosion and will cost more to maintain.

There are no new fire breaks recommended for the Airlie Beach Fire Plan area.

3.6 Fire Fighting – Response and Resources

The responsibility of responding to fires in the Airlie Beach area is the primary role of the Airlie Beach Fire and Rescue Service.

The water for fighting unplanned fires is sourced from:

- Helicopter water bombing – sea water (Funnel Bay)
- Airlie Beach hydrants
- Residential water tanks and swimming pools.
- Farm dams

4. Conclusion

The Airlie Beach Community Bushfire Management Plan has been developed to document stakeholder responsibilities, guide mitigation measures and communicate the main bushfire priorities for this area. The Airlie Beach area covers 295ha and is divided up into 27 fire management areas based on land within similar land use and bushfire hazard. Each fire management unit has a set of recommendations to reduce the bushfire hazard and risk to property.

The council coordinated a workshop in Airlie Beach in December 2021 to discuss fire management issues with sections of the Airlie Beach community. Some of the issues noted in the community workshop were;

- There are a number of large urban zoned blocks of land which are “land banked”. These large lots are cleared of rainforest which now have long grass (guinea grass) and eucalypt regrowth which is increasing bushfire hazard.
- There is an increasing number of residential lots upslope from cleared areas. There is an increasing risk of fires potentially impacting on residential buildings.
- There is a need to investigate the possible application of local laws to assist with the management of overgrown lots which are adding to bushfire hazard and increasing the risk of wildfires impacting residential areas. It was considered that a local law could assist with regulating “fire prone” or “dangerous” vegetation.
- There was interest in exploring how the council planning scheme could reduce situations where land is cleared placing residential areas at an increased bushfire risk.
- Landholders should be encouraged to manage their own long grass to reduce bushfire hazard and where possible encourage rainforest regrowth to create “green buffers” and reduce bushfire hazard.
- Landholders should be encouraged to develop bushfire buffers of short grass downslope of their residential areas and near public access points such as footpaths.

The intension of this Bushfire Plan is to identify bushfire hazard and risk on the hill areas around Airlie Beach. The Plan aims to outline how bushfire management mitigation may occur to maximise community safety whilst recognising the importance of the areas ecological values.

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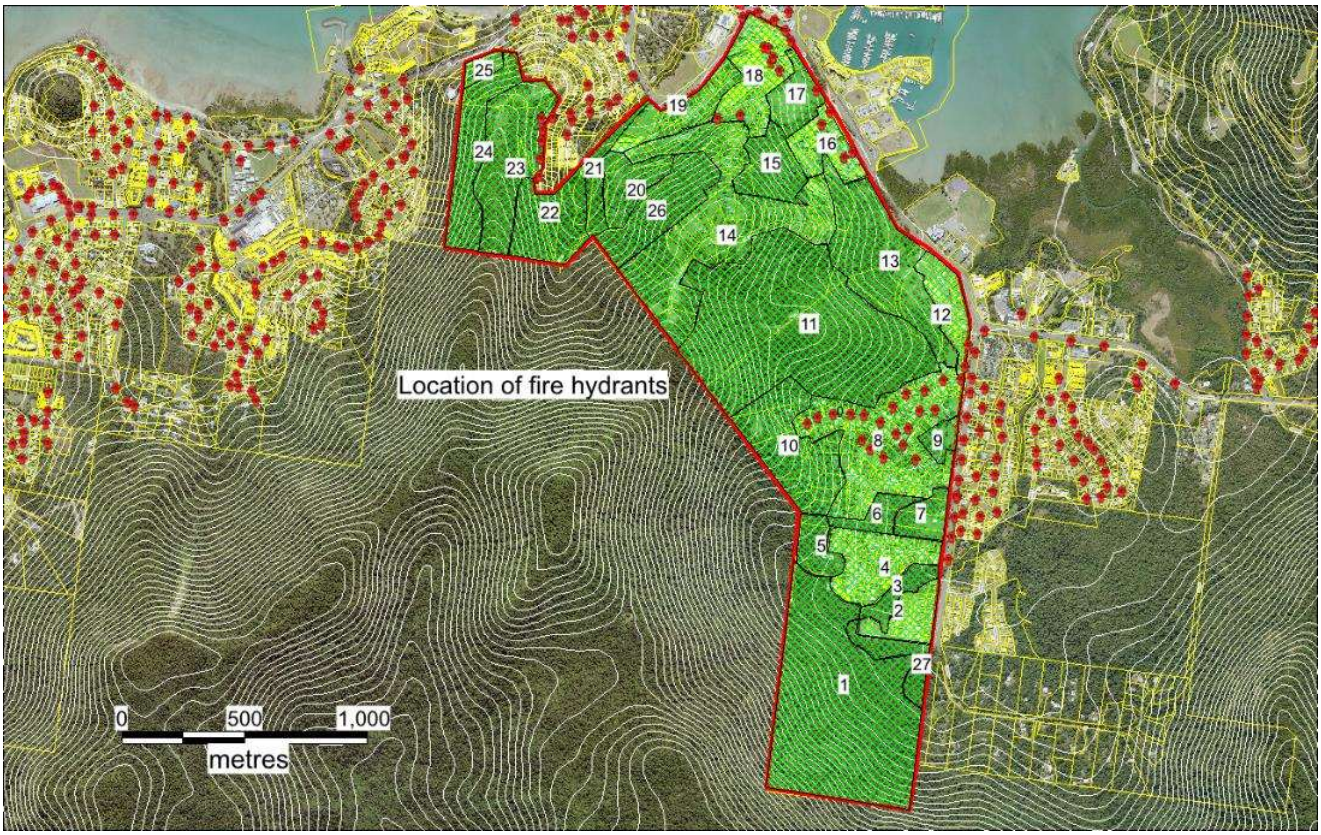
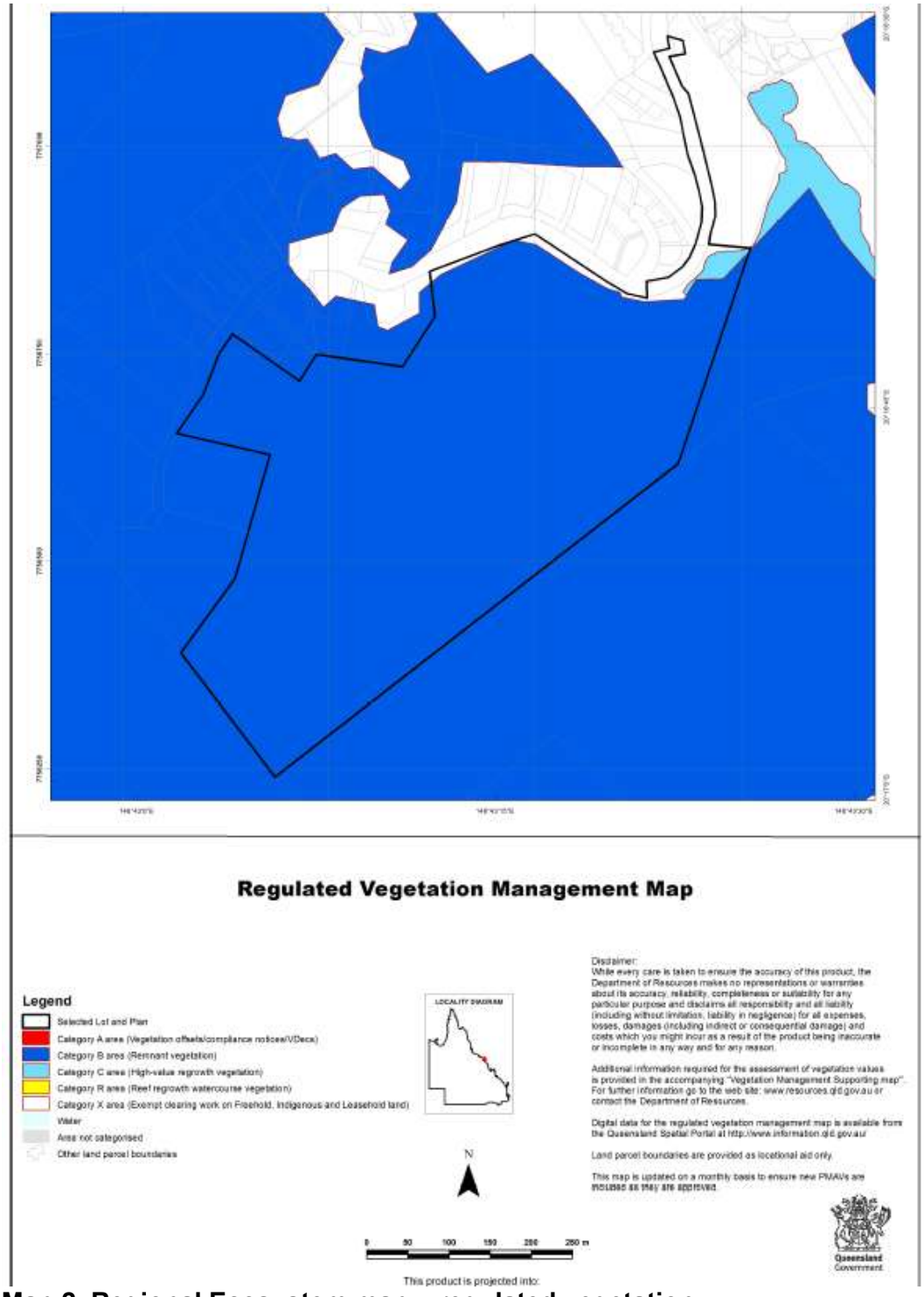
6. Appendix

6.1 Hydrant and Water Resources Map

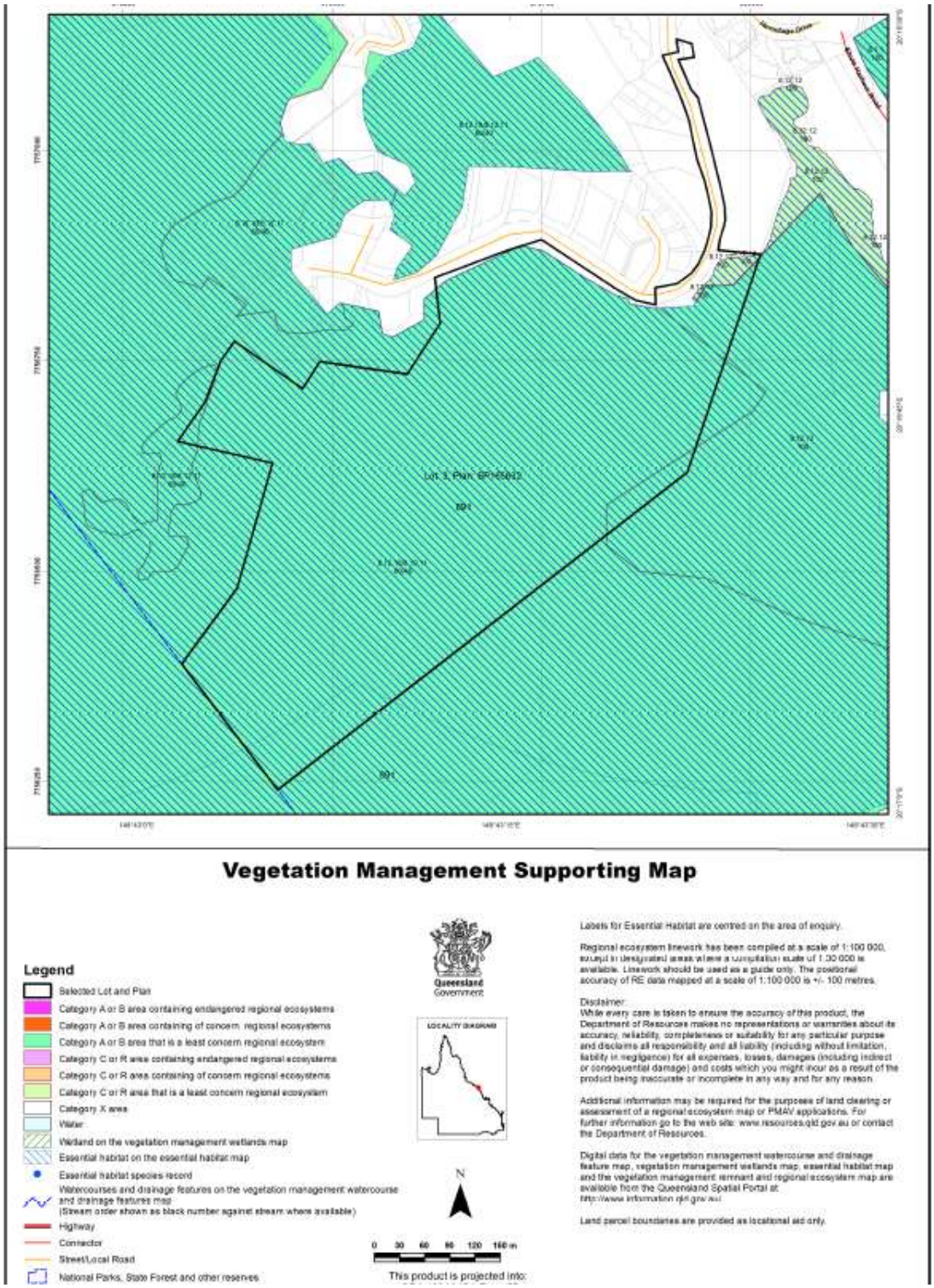


Map 1. Location of fire hydrants

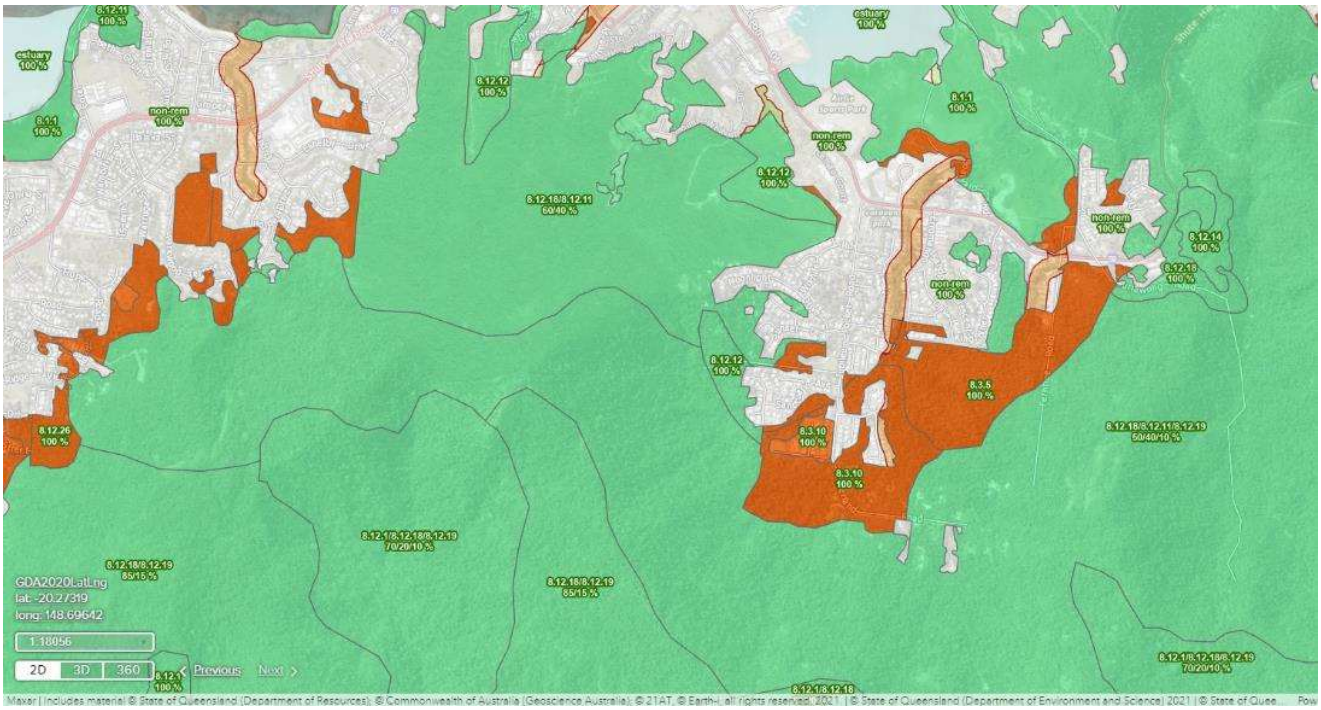
6.2 Regional Ecosystem Maps



Map 2. Regional Ecosystem map – regulated vegetation



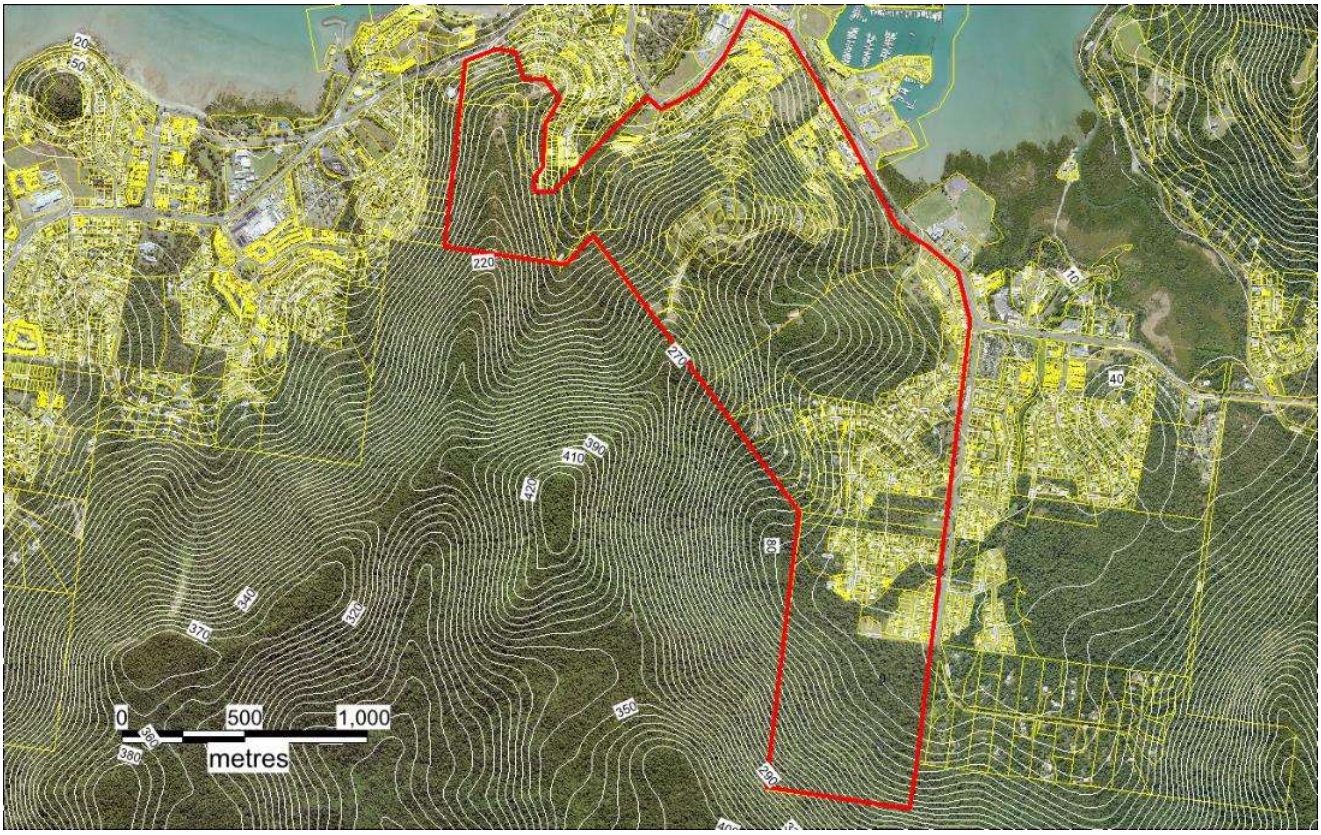
Map 3. Regional ecosystem and remnant vegetation



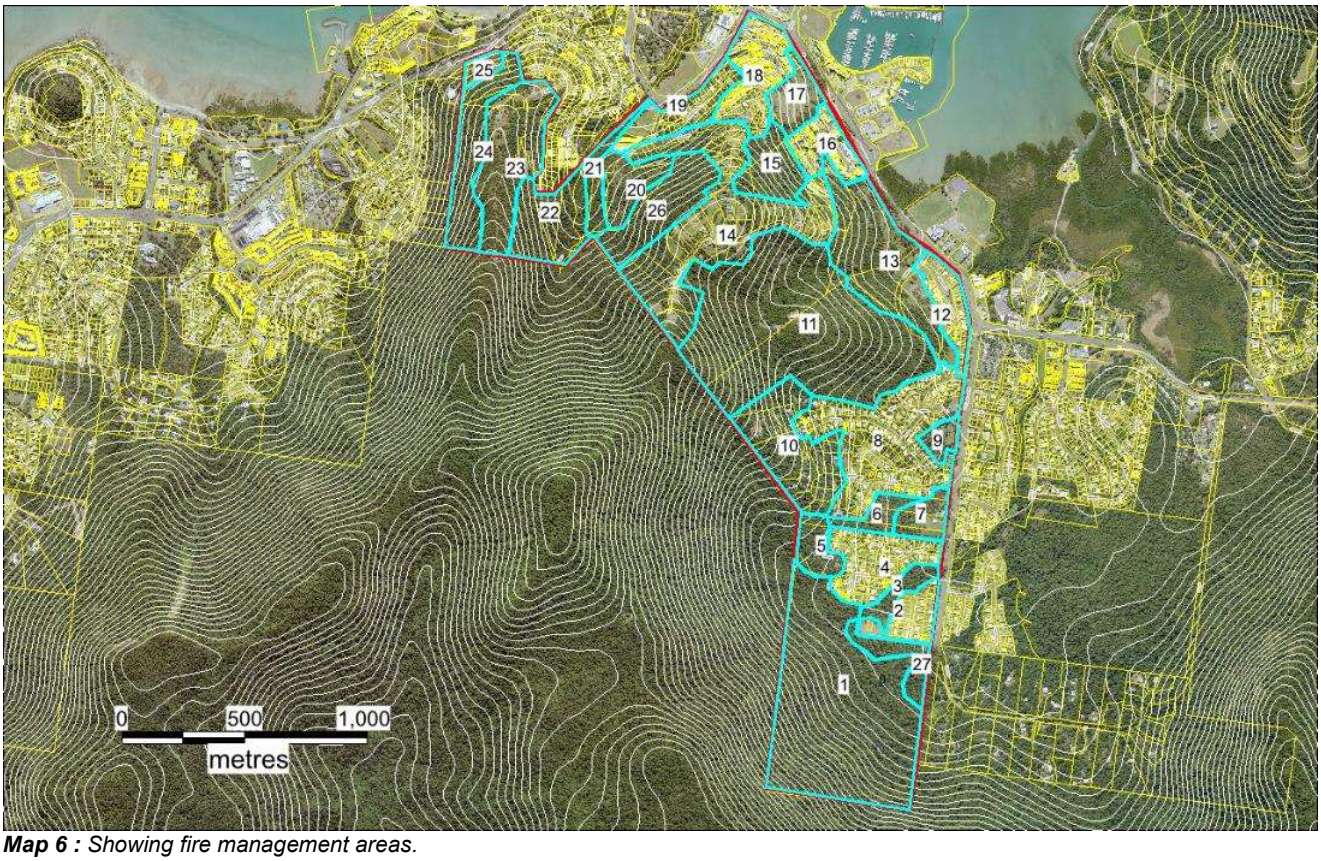
Map 4. Regional ecosystem map

Contours and Fire Breaks

Bushfire Control lines and access tracks should be located along property boundaries and/or along the contour.



Map 5: *Airlie Beach area contours*



Map 6 : *Showing fire management areas.*

6.3 Previous Bushfire Maps

Nil

6.4 Objectives for Bushfire Hazard Reduction Burning

Source: NSW Rural Fire Service
www.rfs.nsw.gov.au

A successful low intensity hazard reduction burn will reduce fuel load so that it creates a safe defensible area around an asset. It should also minimise the impact from the burn on the environment.

In carrying out a burn, you need to consider:

1. The fuel load and structure
2. The effects on the environment and the community
3. The specific zone objectives
4. If there are adequate fire breaks and control lines
5. The season and weather conditions
6. The topography and fire behaviour
7. What lighting patterns to use
8. Conducting a test burn
9. What safety measures may be needed
10. Mopping up afterwards
11. If you need to report the results

6.5 Check List for Hazard Reduction Burns

The following is a checklist of tasks and activities that should be followed prior to hazard reduction burns:

Table 13: *Checklist for Hazard Reduction Burns*

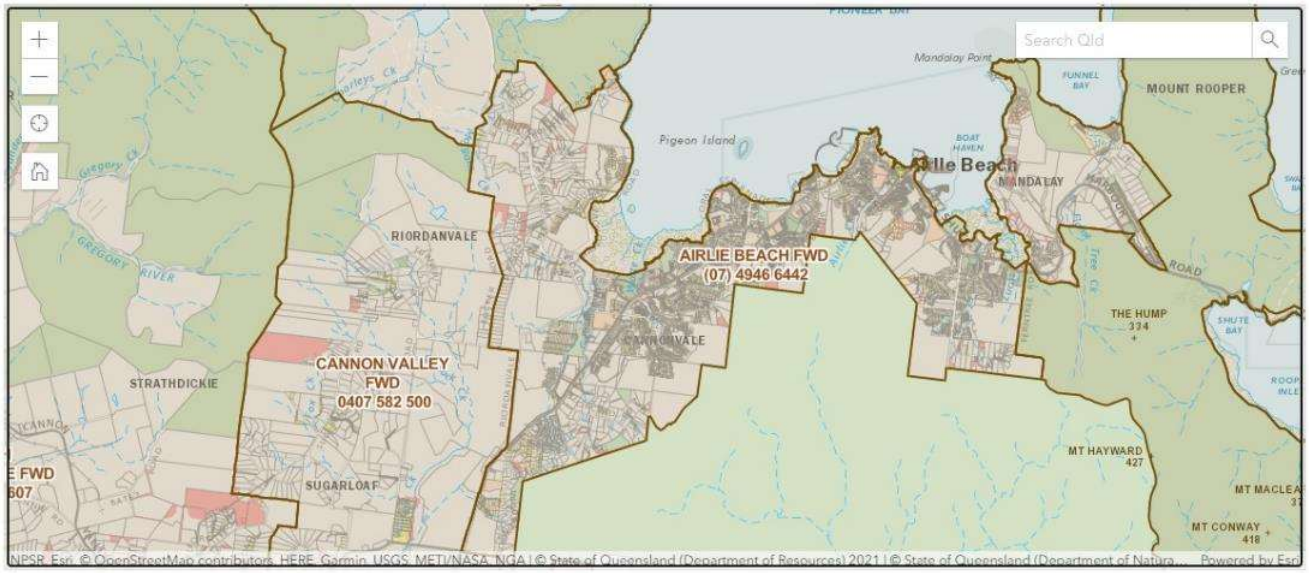
No.	Task	✓
1	Fuel load assessment conducted	
2	Bushfire fire hazard sufficient to warrant a hazard reduction burn	
3	Fire breaks and control lines are in good condition	
4	Burn plan developed – identifying where the burn will occur, timing and personnel availability	
5	Ensure adequately trained personnel are on hand for planned burn	
6	Fire permit gained for proposed burn plan	
7	Proposed hazard reduction burn is approved by Airlie Beach Fire Brigade	
8	Community awareness plan is developed and activated prior to burn	
9	Bushfire stakeholders advised of hazard reduction burn timing	
10	Machinery and trucks are in good working order. Water available.	
11	Contingency plan developed in case fire escapes the target area	
12	Hazard reduction burn is undertaken in accordance with QFES guidelines	
13	Fire control personnel ensure fire is out before leaving fire control area.	
14	A brief account of the hazard reduction burn submitted to QFES and Council.	

6.6 Stakeholder Contacts

- Whitsunday Regional Council – Scott Hardy – 0428 722 236 / (07) 4945 0245.
- QDNRM – Dan Burndred – 0472 847 894, Tim Koch – 0418 970 097
- QPWS – (07) 4962 5206
- Airlie Beach Fire and Rescue Service – (07) 49466442

For more information regarding the Queensland Rural Fire Brigade, visit:
https://www.ruralfire.qld.gov.au/Pages/fw_finder.aspx

6.7 Map of Rural Fire Areas and Warden Contacts



Map 7: *Showing the rural fire areas and warden contact numbers.*

6.8 Landholder Bushfire Planning Checklist

The following checklist can be used by residential landholders to plan and manage their bushfire hazard:

Table 14: *Landholder Bushfire Planning Checklist*

Task	Checked
Structure	
Clear leaves, twigs, bark and other debris from the roof and gutters.	
Purchase and test the effectiveness of gutter plugs.	
Enclose open areas under decks and floors.	
Install fine steel wire mesh screens on all windows, doors, vents and weep holes	
Point LPG cylinder relief valves away from the house.	
Conduct maintenance checks on pumps, generators and water systems.	
Seal all gaps in external roof and wall cladding.	
Access	
Display a prominent house or lot number, in case it is required in an emergency.	
Ensure there is adequate access to your property for fire trucks - 4 metres wide by 4 metres high, with a turn-around area.	
Vegetation	
Reduce vegetation loads along the access path.	
Mow your grass regularly.	
Remove excess ground fuels and combustible material (long dry grass, dead leaves and branches).	
Trim low-lying branches two metres from the ground surrounding your home.	
Consider removing flammable trees near residential buildings (e.g. removal of eucalypt trees) and replace with non-flammable rainforest species.	
Personal	
Check that you have sufficient personal protective clothing and equipment. Relocate flammable items away from your home, including woodpiles, paper, boxes, crates, hanging baskets and garden furniture.	
Check the first aid kit is fully stocked.	
Make sure you have appropriate insurance for your home and vehicles.	
Find out if there is a nearby **Neighbourhood Safer Place**.	
Review and update your household **Bushfire Survival Plan**.	
Other	
Consider the location of water points and possible direction of bushfire threats. In rural residential areas ensure water tanks are more than half full in bushfire season.	
Keep swimming pool full of water.	

Source: https://www.ruralfire.qld.gov.au/BushFire_Safety/Pages/Prepare-for-bushfire-season.aspx

6.9 Vegetation Clearing Rules

Exemptions apply to some clearing activities permitted under other legislation, including the *Forestry Act 1959*, *Fire and Emergency Services Act 1990*, *Electricity Act 1994*, *Electricity Regulation 2006* and *Disaster Management Act 2003.* Visit the Department of Environment and Science website for more information.

Exempt clearing work for fire management sourced from the Queensland government websites:

- You can undertake certain clearing activities to protect your property from bushfires without getting approval or notifying the Queensland government. These exemptions are summarised in the Table below.
- If you need to clear a wider area, you might be able to clear using a vegetation clearing code or apply for a development approval.
- **Firebreaks** are low-fuel areas located immediately adjacent to existing infrastructure (including a building, or other structure, built or used for any purpose) that are cleared and maintained to slow or stop the progress of a fire, or to perform back-burning.
- **Fire management lines** are roads, fence line clearings or tracks (including existing property tracks) used to access water for firefighting or divide the property for fuel reduction burning or back-burning.

Table 15: *Vegetation Clearing Rules*

Purpose for Clearing	Vegetation Category	Clearing Allowances
Fences, roads and tracks	Least concern regional ecosystems	Clearing to establish a necessary fence, road or vehicular track to a maximum width of 10m
Fire management line	All	Clearing for a necessary for management line to a maximum width of 10m
Firebreaks	All	For a fire necessary to protect buildings and other structures (other than a fence line); to a width of up to 1.5 times the height of the tallest vegetation or 20m (whichever is the widest)
Hazardous fuel load reduction	All	Fuel reduction burns can be done under a permit issued by the local fire warden
Maintain existing infrastructure	All	Clearing necessary to maintain existing buildings and other structures, fences, roads and watering points.
Risk to people and infrastructure	All	Clearing necessary to remove or reduce imminent risk the vegetation poses to people or buildings and other structures.

https://www.qld.gov.au/environment/land/management/vegetation/disasters/fire/code

https://www.dnrme.qld.gov.au/__data/assets/pdf_file/0009/847800/vegetation-clearing-exemptions.pdf