



**King Island Fire Management Area
Bushfire Risk Management Plan
2021**

Document Control

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Glossary

Asset	A term used to describe anything valued by the community that may be adversely impacted by bushfire. This may include houses, infrastructure, agriculture, production forests, industry, and environmental and heritage sites.
Asset Zone (AZ)	The geographic location of asset(s) and values of importance requiring bushfire exclusion.
Asset Protection Zone (APZ)	An area adjacent to or near Asset Zones, the primary management purpose of which is to protect human life, property and highly valued assets and values. Treatment can include intensive fuel reduction, manipulation of fuel moisture or response plans.
Bushfire	Unplanned vegetation fire. A generic term which includes grass fires, forest fires and scrub fires both with and without a suppression objective.
Bushfire hazard	The potential or expected behaviour of a bushfire burning under a particular set of conditions, i.e. the type, arrangement and quantity of fuel, the fuel moisture content, wind speed, topography, relative humidity, temperature and atmospheric stability.
Bushfire Risk Assessment Model (BRAM)	A computer-based modelling tool that uses a series of inputs to assess the risk of bushfire to a specific area. The BRAM has a capacity to produce a series of outputs. It was developed and is managed by Tasmanian Parks & Wildlife Service.
Bushfire risk management	A systematic process to coordinate, direct and control activities relating to bushfire risk with the aim of limiting the adverse effects of bushfire on the community.
Community Bushfire Protection Plan	A bushfire plan for community members that provides local, community-specific information to assist with bushfire preparation and survival. The focus of the Bushfire Protection Plan is on bushfire safety options, and the intent of the plan is to support the development of personal Bushfire Survival Plans.
Community Bushfire Response Plan	An Emergency Management Plan for emergency managers and responders. The Bushfire Response Plan aims to better protect communities and their assets during bushfire emergencies, through the identification of protection priorities and operational information.
Consequence	Impact(s) of an event on the five key areas: environment, economy, people, social setting and public administration.
Control	A measure that modifies risk. This may be an existing process, policy, device, practice or other action that acts to minimise negative risk or enhance positive opportunities.
Fire management zoning	Classification system for the areas to be managed. The zoning system indicates the primary purposes for fire management for an area of land.
Fuel break	A natural or manmade change in fuel characteristics which affects fire behaviour so that fires burning into them can be more readily controlled.
Hazard management area	The area between a building and the bushfire-prone vegetation that provides access to a fire front for firefighting, which is maintained in a minimal fuel condition and in which there are no other hazards present that will significantly contribute to the spread of a bushfire.
Human Settlement Area	Term given for the dataset used to define where people live and work. The dataset was developed for the purpose of risk modelling and was created using a combination of building locations, cadastral information and ABS data. Includes seasonally populated areas and industrial areas.
Land Management Zone (LMZ)	An area that is managed to meet the objectives of the relevant land manager such as: Traditional Owner practices, biodiversity conservation, production forestry, farming or recreation. Management can include planned burning, experimental treatments, fire exclusion or no planned action.
Likelihood	Chance of something happening. It is used as a general description of probability and may be expressed qualitatively or quantitatively.
Risk register	A document usually presented in a tabular form which lists concisely the following information for each risk: the risk statement, source, hazard, impact area, prevention/preparedness controls, recovery/response controls, level of existing controls, likelihood level, risk level, confidence level and treatment strategy.
Risk treatment	Process of selection and implementation of controls to modify risk. The term 'risk treatment' is sometimes used for the controls themselves.

Strategic Fire Management Zone (SFMZ)	An area located close to or some distance away from assets (e.g. the urban–rural interface), the primary management purpose of which is to provide a mosaic of areas of reduced fuel in strategic locations to reduce the speed and intensity of bushfires, potential for spot-fire development, and size of bushfires. Treatment is by fuel reduction burning and other bushfire protection measures such as fire trails, water points, detection measures and response plans.
Treatable vegetation	Types of vegetation which are suitable for fuel reduction burning, for example, dry eucalypt forest, scrub, heathland and buttongrass.
Treatment plan	A document related to the risk register presented in a tabular form which lists concisely the following information for each risk: the agreed strategies to manage the risk (i.e. treatments), the responsible organisations, proposed completion date and comments.

Acronyms

BRMPG	Bushfire Risk Management Planning Guidelines
BRAM	Bushfire Risk Assessment Model
BRMP	Bushfire Risk Management Plan
DPIPWE	Department of Primary Industries, Parks, Water and Environment
FFDI	Forest Fire Danger Index
FMA	Fire Management Area
FMAC	Fire Management Area Committee
LGA	Local Government Area
PWS	Parks and Wildlife Service
SFMC	State Fire Management Council
STT	Sustainable Timber Tasmania
TFS	Tasmania Fire Service

Maps contained in this document may include data provided by DPIPWE (Land Tasmania), Parks and Wildlife Service (Fire Management Section) and Tasmania Fire Service. These map products have been produced by the Tasmania Fire Service. While all efforts have been taken to ensure their accuracy, there may be errors and/or omissions in the data presented. Users of these products are advised to independently verify data for accuracy and completeness before use.

Executive Summary

This Bushfire Risk Management Plan identifies priorities for the treatment of bushfire risk in the King Island Fire Management Area over the next three years. It was developed by the Fire Management Area Committee (FMAC) as required under sections 18 and 20 of the *Fire Service Act 1979*. This plan aims to coordinate and influence the treatment of bushfire risk in the Fire Management Area.

The plan is strategic level and does not include all details of bushfire risk treatments but does identify which organisations or individuals are responsible for implementing them. The *King Island* FMAC will prepare a written report twice yearly for the State Fire Management Council on the progress of implementation.

The plan was developed in line with the [Bushfire Risk Management Planning Guidelines 2020](#). The risk assessment considers bushfire impacts to the assets and values in the area, and uses the following matrix to calculate a risk rating:

LIKELIHOOD	CONSEQUENCE LEVEL				
	INSIGNIFICANT	MINOR	MODERATE	MAJOR	CATASTROPHIC
Almost Certain	MEDIUM	MEDIUM	HIGH	EXTREME	EXTREME
Likely	LOW	MEDIUM	HIGH	EXTREME	EXTREME
Unlikely	LOW	LOW	MEDIUM	HIGH	EXTREME
Rare	VERY LOW	LOW	MEDIUM	HIGH	HIGH
Very Rare	VERY LOW	VERY LOW	LOW	MEDIUM	HIGH
Extremely Rare	VERY LOW	VERY LOW	LOW	MEDIUM	HIGH

The results of the risk assessment are summarised in the risk register ([Appendix 1](#)) and the proposed treatments are listed in the treatment plan ([Appendix 2](#)). All maps are published on the internet on LISTmap, and hyperlinks to these can be found in the relevant locations in this plan.

This FMA covers the whole of King Island, an area of 110,975 hectares located at the western entrance of the Bass Strait, midway between Victoria and mainland Tasmania. Approximately 17% of the island is public land, managed by Parks and Wildlife Service (PWS) and Sustainable Timber Tasmania (STT). 1,585 people (ABS 2016) occupy the remaining 83% (private/freehold land), serviced by the sole local government authority on the island, King Island Council.

When considering bushfire as a threat for the community of King Island, the greatest threat comes from human ignition. Of the bushfires recorded on the island, human ignition has been a common cause. Since European settlement in the mid 1800's, fire has been utilised for clearing vegetation for establishing a successful agricultural industry on the island. As such, it has been estimated that approximately 70% of the land mass has been modified for agricultural purposes and has subsequently resulted in the dramatic decline and in some cases elimination of most rainforest and wet forest vegetation communities and accompanying animal species from areas of the island.

Significant impact from bushfire has historically been faced in the natural landscape with limited impact identified on human settlement areas. The more significant bushfires recently recorded on the island, were in 2001 and 2007. These fires burnt extensive tracts of the island's remaining native vegetation; with the 2001 bushfire burning approximately 6,000 hectares and the 2007 bushfire

burning approximately 12,500 hectares of native forest, peat (organic soils), pasture, shelter belts and Ramsar listed wetlands, from Pennys Lagoon in the north to Eldorado Creek in the south, an estimated 70% of the islands native vegetation significantly impacted.

The organic soils (otherwise referred to as 'Peat') underlying the pastures on King Island contribute significantly to the high productivity of the island and are likely to be at least hundreds if not thousands of years old. Peat or organic leaf matter in soils has both a high economic and environmental value but can also be an issue for extinguishment following bushfires. Where swamps have been drained for agricultural purposes or dry out during drought years, peat if exposed to fire can be burnt away and totally and permanently destroyed. Bushfire poses a risk to peat deposits on King Island.

Bushfire continues to be a major ongoing threat to both the quality and scope of King Island's biodiversity. Bushfire is considered to be a major threat to threatened species on King Island.

The remoteness of King Island from mainland Tasmania means that assistance from "off island" in the form of extra resources and crews that may be required to control a large-scale bushfire on the island can be logistically challenging. Early recognition of the likely need for assistance together with an early request for additional resources from off island represents the best opportunity for fast and effective response to large bushfires on the island. In response to issues faced by the community on King Island during the 2007 bushfires, a set of criteria have been developed for the TFS, PWS and KIC representatives to inform decision making and to determine trigger points, where requesting assistance for bushfire suppression from 'off island' resources may occur.

Areas of strategic importance within the King Island Fire Management Area

Reducing fuel loads in strategic locations has the potential to modify fire behaviour and reduce impacts from bushfires. These areas were identified through a process that utilised and combined local knowledge/expertise and computer modelling. Fire Management Area Committee members with specific fire expertise and knowledge across the area contributed to the identification of both the communities at risk and the broader strategic areas for potential mitigation activities.

The following areas were identified as having strategic importance for the King Island FMA:

Table 1: Areas of strategic importance

Treatment area/Asset	Risk	Responsible Agency
Currie Human Settlement Area	Bushfires pose a risk to the human settlement area of Currie and associated critical infrastructure supporting the community.	King Island Council, PWS and TFS
Grassy Human Settlement Area	Bushfires pose a risk to the human settlement area of Grassy and associated critical infrastructure supporting the community.	King Island Council, PWS and TFS
Naracoopa Human Settlement Area	Bushfires pose a risk to the human settlement area of Naracoopa and associated critical infrastructure supporting the community.	King Island Council, PWS, TFS and STT.
Colliers Swamp	Bushfires pose a risk to threatened ecosystems and associated individual plant and animal species	PWS
Nook Swamp and Lavinia wetlands	Bushfires pose a risk to threatened ecosystems and associated individual plant and animal species	PWS
Pegarah Plantation	Threatened Ecosystems and associated individual plant and animal species Economic loss from potential harvest material	STT

Treatment area/Asset	Risk	Responsible Agency
Critical infrastructure – communication network, power facilities, water and transport network.	Bushfires pose a risk to critical infrastructure (through disruption of power) for the King Island community	Hydro Tasmania, Telstra, King Island Council, TasWater and TAS Ports
Existing Strategic fire trails.	Access and egress to King Island community and natural values during the event of a bushfire.	King Island Council, PWS, STT and TFS

1. Introduction

1.1 Background

It is a requirement of Section 20 of the *Fire Service Act 1979* that the Fire Management Area Committee (FMAC) prepare a fire protection plan for its Fire Management Area. This Bushfire Risk Management Plan (BRMP) fulfils that requirement. The BRMP is submitted to and approved by the State Fire Management Council (SFMC).

The *Fire Service Act 1979* requires that the fire protection plan is consistent with the State fire protection plan, the [Tasmanian Vegetation Fire Management Policy](#), and because it is an instruction from SFMC, the [Bushfire Risk Management Planning Guidelines](#) (SFMC 2020).

The Bushfire Risk Management Planning Guidelines (BRMPG) explain the framework for bushfire risk management in Tasmania, the method for doing the risk assessment, and how to prepare the BRMP. There is very little explanation here in this plan on the rationale, principles and methods used; therefore, the BRMPG is an important supporting document for understanding this plan.

Under the terms of reference for the King Island FMAC, the purposes of the committee are:

- Provide a forum for communication and collaboration between key stakeholders in the FMA
- Enable a holistic and consistent approach, incorporating local knowledge, to identify strategic priorities to reduce bushfire risk
- Coordinate efforts and facilitate resource sharing to implement the strategic risk reduction priorities
- Link the local community and the SFMC through ‘ground-truthing’ the bushfire risk assessment and mitigation strategies
- Through their advisory function, provide input into decisions and outcomes beyond the Fire Management Area.

1.2 Purpose of this plan

The management of bushfire-related risk is a collective responsibility of the whole community, with contributions made by numerous individuals, landowners, and organisations.

An overriding aim of this BRMP is to document a coordinated approach to the identification and treatment of bushfire risk in the King Island Fire Management Area (FMA). Specific objectives include:

- Guide and coordinate bushfire risk management over a three-year period on all land within the FMA
- Provide a reference point for the prioritisation and justification of bushfire treatment actions, as well as supporting evidence for funding requests
- Facilitate the integration of bushfire risk management into the business processes of councils, organisations, and land managers
- Facilitate cooperation and the coordination of treatment actions between stakeholders
- Clearly and concisely communicate bushfire risk to stakeholders and the community
- Provide a basis for monitoring and reporting of implementation of bushfire risk treatments in the FMA.

This BRMP is a strategic-level document that does not provide detail on treatment actions. Individual organisations and landowners, or collaborative groups, may have developed plans and processes for implementation of bushfire risk treatment; these can be considered to be linked to the strategic priorities identified [here](#) (SFMC 2020).

2. Establishing the context

2.1 Description of the King Island Fire Management Area

King Island is one of the 334 islands that make up the state of Tasmania. The island is 64km long by 27km wide and lies at the western entrance to the Bass Strait, midway between the state of Victoria and mainland Tasmania at 144⁰ longitude and 40⁰ latitude. The island is generally quite flat to undulating, with the highest point being 168m above sea level at Gentle Annie in the south east of the island. Refer to [Map 1](#) for further locality details.

This Bushfire Risk Management Plan (BRMP) encompasses the whole of King Island with an area of 110,975 ha or 1,095 square kilometres. Approximately 83% of which is considered private land, almost 15% is PWS responsibility and a little over 1% is managed by STT (refer to Table 2 for details). The King Island Council is the sole local government authority within the FMA. Refer to [Map 2](#) for further FMA tenure details.

Table 2: Summary of the major tenure land managers in the King Island Fire Management Area (FMA).

Land manager	% of FMA
Private property	83.9
Parks and Wildlife Service reserves	13.1
Sustainable Timbers Tasmania	1.1
Crown land	1.7

2.2 Fire environment

Land use within King Island has been predominantly for purposes of agriculture since European settlement, with an estimated 70% of native vegetation being removed or modified for agricultural purposes since European settlement in the late 1800's.

Remaining native vegetation on the island consists of 28 vegetation communities, with 7 listed as threatened under the *Nature Conservation Act 2002*, (36A Spray zone Coastal complex; 6 *E. brookeriana* wet forest; 18 *E. globulus* King Island forest; 18 *E. ovata* forest and woodland, 30 *M. ericifolia* swamp complex, 35 Seabird rockery complexes and Wetland complex). Areas with these vegetation communities persisting are considered to be of high ecological significance, such as the Lavinia State Reserve.

Many of the vegetation communities within the FMA are considered to be highly flammable with under 30% of the total land area regarded as 'treatable' vegetation, (suitable for fuel reduction planned burning practices). Although vegetation communities are identified as treatable, current status and structure of these communities (low surface or near surface fuels and very high to extreme elevated or canopy fuels are making it increasingly difficult to complete planned burns within prescription). [Map 5](#) provides further details for Vegetation communities identified within FMA.

Table 3: Vegetation Communities and Flammability (Source from LIST Map)

Broad Vegetation Group	Veg Flammability	% of FMA
Agricultural, urban, and exotic vegetation	Medium	63.3
Scrub, heathland, and coastal complexes	High – Very High	26.6
Non <i>eucalypt</i> forest and woodland	High	2.6
Wet <i>eucalypt</i> forest and woodland	Medium	2.8
Dry <i>eucalypt</i> forest and woodland	Medium - High	1.0
Other Natural Environments	N/A	0.8
Native Grassland	High	0.5
Saltmarsh and Wetland	Low	0.4

Further detailed descriptions on vegetation communities and associated threatened plant species residing on the Island, can be sourced from visiting the DPIPWE website at www.dpipwe.tas.gov.au/tasveg.

Fire practitioners along with key stakeholders have considered the importance of shelter belts on the island, (narrow rows or belts of trees and shrubs used to provide shelter to stock from wind and also corridors for native fauna), and the potential for them to act as ‘wicks’ and rapidly carry fire into adjoining vegetated areas. Shelter belts are highly valued by livestock producers and environmental groups within the community. To reduce fire spread within these shelter belts, it is recommended that breaks in the vegetation should be implemented.

Frequent and intense fires over the Island’s European history have eliminated most rainforest and wet forest associated flora and fauna from areas of the Island (Barnes et al. 2002).

The bushfires experienced in 2001 and 2007 are considered to be the most significant bushfires on the island in recent times. In 2001, a lightning strike resulted in the Lavinia bushfire burning almost 6,000 hectares of the Lavinia State Reserve, including the devastation of Ramsar Wetland.

In 2007 the Sea Elephant Road bushfire burnt approximately 12,500 hectares of vegetation extending from Lavinia Point to Sea Elephant Bay. This fire has contributed to a permanent disruption to the ecology of the island with an estimated 95% of vegetation burnt in the 2001 bushfire, burnt again in 2007. This coupled with extremely dry conditions experienced in 2007, has ensued in a significant loss of peat and *Melaleuca ericifolia* swamp forests (RMCD 2007, Corbett & Corbett 2010).

The 2007 (Sea Elephant Road) bushfire was ignited on 18 February 2007 and continued to burn for three weeks. The fire burnt approximately 12,500 ha from the Sea Elephant Estuary through to Pennys Lagoon in the north of the Island. It is estimated that 70% of the island’s native vegetation was burnt during the fire, including areas of internationally recognised Ramsar wetlands and orange bellied parrot feeding grounds within Lavinia State Reserve and significant tracts of remnant vegetation and pasture on private property including shelter belts.

When considering the vegetation type, structure, and flammability of the King Island FMA, fires are largely 'wind driven'. That is, fires will run with high intensity with the wind, and back very slowly with medium to low intensity, if not self-extinguish when not influenced by wind. This creates difficulty for burn practitioner's planning fuel reduction burns, and successfully completing within prescription.

Peat or organic leaf matter in soils, has both a high economic (supports the nutrient rich agricultural pastures) and environmental value but can also be an issue for suppression during and post bushfires. Where swamps have been drained for agricultural purposes or become dry during drought years, the peat is more readily exposed to fire and may be permanently destroyed.

A summary of the FMA values, concerns and priorities can be drawn from the focus on the protection of:

- Health and educational facilities including supporting infrastructure, such as childcare facilities, District School, District Hospital.
- Economic and commercial infrastructure supporting employment/tourism on the island, including the KI dairy, KI airport, King Island Golf courses (Ocean Dunes, King Island Golf and Bowling Club, Cape Wickham Golf Links), port infrastructure, Pegarah plantation and agriculture.
- Important natural and cultural values, such as the Lavinia State Reserve or Colliers Swamp Conservation Area and the associated threatened plant and animal species; Agricultural "Shelter Belts", which are considered to be a vital component for successful agriculture on the Island or Pegarah plantation which has been recognised as possessing endemic rare and threatened species; and
- Critical communication facilities and supporting infrastructure.

2.3 Climate and bushfire season

The climate of the King Island FMA can be classified as temperate.

The King Island FMA primary Bureau of Meteorology (BOM) weather observation station is located at King Island Airport, on the western side of the island (Latitude: 39.88° S, Longitude: 143.88°E, Height: 35.0 m), about 5 kilometres north of Currie township.

King Island FMA has a cool to moderate maritime climate heavily influenced by the exposure to the Southern Ocean and the 'Roaring 40's' with prevailing winds from the west. Although wind direction during the summer months is highly variable, the most common fire danger weather conditions are experienced from the north west, refer to Figure 1 for FFDI wind rose.

Mean temperatures (*measured from 1962 – 2020*) within this FMA range from 7.6°C during the winter months to 21.3°C in the summer months. The island recorded its hottest day in January of 2013 with a maximum of 37.8°C and its lowest recorded temperature of -1.2°C in July of 2020. It has been identified that average temperatures have risen at a rate similar to mainland Tasmania (up to 0.1 C per decade), since the 1950s, with the daily minimum temperature rising slightly more than daily maximum temperatures (M Grose 2012, Antarctic Climate and Ecosystems CRC).

The regular westerly frontal systems that cross Tasmania during the winter months, provide the bulk of the islands rainfall. Although periodic rainfall does occur from the north and east dependant on the strength of influencing weather patterns, such as the Southern Annular Mode, Indian Ocean Dipole and El Nino Southern Oscillation.

The bushfire season for King Island is traditionally from November to March, though fires can and do occur outside this peak season. The bushfire threat for the King Island FMA increases in late December with January and February generally being the driest and hottest months when bushfires are more difficult to control.

Autumn is considered to be the preferred and recommended season for fuel reduction planned burning within King Island, to minimise the risk of organic soils (peat) smouldering and reigniting.

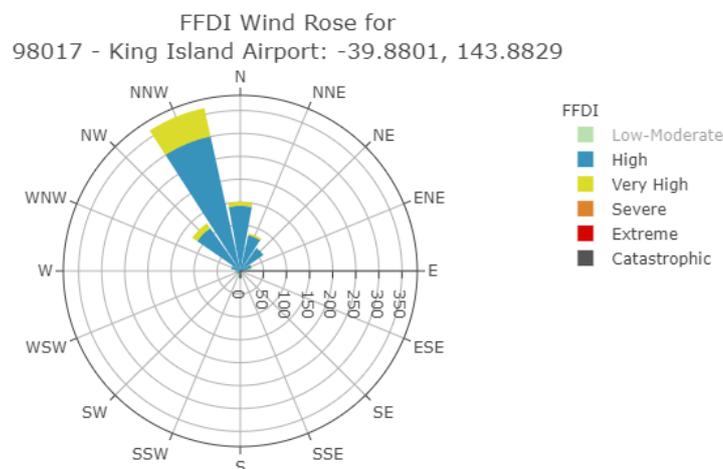


Figure 1: Wind Rose Plot of FFDI – King Island Airport

Figure 1 illustrates the most common FFDI above 'moderate', weather conditions recorded for King Island Airport (Currie) since 1990, and the frequency we can expect those particular conditions to occur. This wind rose reveals the worst prevailing weather from the NNW.

The graph illustrated in figure 2 below, indicates the likely return period or recurrence of a particular FFDI for King Island. This information can be utilised to determine what a 'one in ten year' fire weather event may look like for King Islands FMA. The FFDI return period for King Island equates to a FFDI rating of approximately 36 once every ten years.

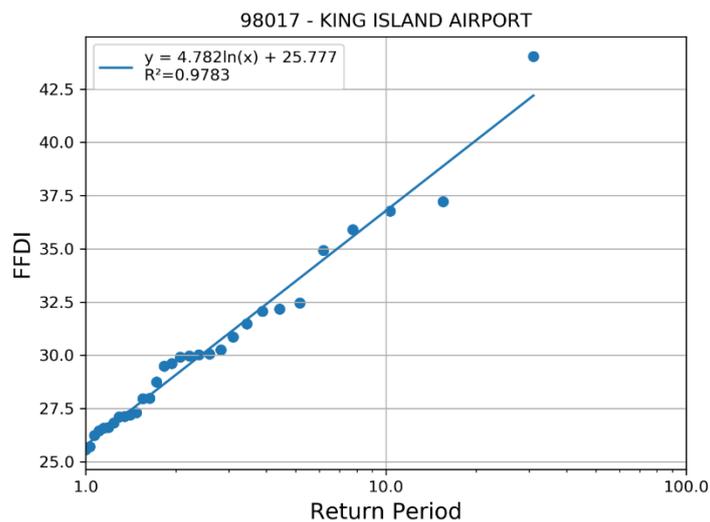


Figure 2: FFDI v Annual Exceedance Probability (AEP) – King Island Airport

Climate is changing in Tasmania and it is evident from bushfire climate indicators (Fox-Hughes et al. 2015) that we can expect destructive bushfires to become more frequent.

As per much of the world, climate variability and drought are becoming much more common occurrences. Since 1981, King Island has experienced all but five years below the long-term mean annual rainfall (DPIW 2007). Prior to fires in February 2007, King Island has had a 'serious' rainfall deficiency for the previous 12, 24 and 36 months, while the annual rainfall for 2006 was one of the lowest on record (DPIW 2007). (KIWMP 2009, p.3)

2.4 Population and community

A summary of King Island FMA community profile is as follows:

- King Island has an estimated residential population of 1585 people (ABS 2016)
- Approximately 23% of the population are aged 24 or less, with over 50 % of the population aged between 25 years to 64 years of age, and 22 % of the population aged 65 years or over.
- The Township of Currie is the Islands largest town and administrative centre.
- Agriculture and fishing are the main industries and employers on the island.
- King Island has a strong reputation for its dairy and meat products and has a commercial fishing fleet for lobster (crayfish) and abalone.
- Public administration and retail trade are the next most significant sources of employment. Other industries providing employment include mining, kelp harvesting and tourism.

A temporary increase in population may be experienced intermittently, due to transient construction workers supporting new commercial/infrastructure projects, along with tourists. This may have potential implications during in an emergency situation.

2.5 Community engagement

The King Island FMAC recognises the importance of the ongoing community liaison and engagement with DPIPWE, STT, associated specialists, specialist groups along with key stakeholders within the community, as being an integral component of bushfire management on the island. Community engagement has and will continue to be centred on individual landowner engagement and immediate neighbours as part of the planned burn development coordinated by the Bushfire Risk Unit and Parks and Wildlife. at the time of writing this plan, STT are yet to complete planned burns within STT managed lands. STT currently focus efforts on preparedness and prevention.

Recent community engagement initiatives have been largely driven by the Bushfire Ready Neighbourhood program in partnership with the King Island Council, through the delivery of bushfire preparedness information sessions. These information sessions are supported through regular attendance of the King Island Show by Parks and Wildlife Service (PWS) and Tasmanian Fire Service (TFS) representatives from the Fuel Reduction Program, to further discuss and inform decision making pertaining to mitigation strategies for reducing bushfire risk to members of the community.

Longer-term specific community engagement for the King Island FMA will continue to concentrate on preparedness through the Bushfire Ready Neighbourhood program in the following areas:

- Loorana
- Naracoopa
- Grassy
- Currie

Bushfire Ready Information sessions provide context around previous and upcoming bushfire seasons, how TFS responds, situational awareness (FDR and Alerts and Warnings), understanding of Community Protection Planning, Bushfire survival planning, and preparing individual landowner properties.

The newly developed Red Hot Tips practical bushfire management program will be working towards facilitating workshops with farmers and landholders in rural areas in 2021/2022. This program aims to provide landholders with practical advice on effective bushfire mitigations strategies, whilst empowering the landholder with enhanced skills and abilities to implement these strategies.

3. Identifying the risks

3.1 Bushfire and impact scenarios

To set the scene for this risk assessment, the bushfire scenarios under consideration are very large events, typically 10,000 to 20,000 hectares, occurring when fuel dryness and weather conditions combine to create one or more days of very significant fire weather. Analysis of climate data was used to determine standard weather events for the scenarios – described as having an Annual Exceedance Probability of approximately 10% (SFMC 2020).

- A fire breaks out from a campfire, located in the dunes of Lavinia Beach, on a day of FFDI **31**, and ignites adjacent highly flammable vegetation (consisting of rare and threatened plant and animal species). Weather conditions for the day will be strong north westerly wind stream.
- A fire breaks out from a person cutting firewood through accidental fuel ignition while refuelling chainsaw, on a day of FFDI **28**, and ignites adjacent natural plantation. (Consisting of rare and threatened plant and animal species and valuable natural and cultivated plantation timbers). Weather conditions for the day will be strong Westerly wind stream.
- A fire breaks out from a powerline arc-flash, located north of Grassy alongside a roadside shelter belt, on a day of FFDI **37**, and ignites adjacent vegetation. Weather conditions for the day will be strong north westerly wind stream.

Please note, these are not actual scenarios, rather hypothetical agency scenarios for example only.

3.2 Statewide controls

The following controls are currently in place across Tasmania to help manage bushfire-related risk:

- Legislative controls – including *Fire Service Act 1979* (e.g. Fire permit period, Total Fire Ban days, campfires), *National Parks and Reserves Management Act 2002* (e.g. fires and campfires), abatement notices
- TFS public education (e.g. Bushfire Ready Neighbourhoods, media campaigns)
- TFS planning – community protection planning (e.g. Community Response Plans)
- Fuel Reduction Program (TFS, PWS, STT) – funding and coordination of fuel reduction burning
- SFMC programs (e.g. Red Hot Tips training program for fuel reduction burning on private land)
- FMAC – performance monitoring and reporting on this BRMP
- Tasmania Police and TFS – Statewide arson prevention programs
- Land subdivision and building standards (Bushfire-Prone Areas Code, Building Code of Australia)
- Suppression response preparedness – e.g. TFS local volunteer brigades, STT and PWS crews, forest company crews, fire towers, aircraft, pre-positioning of firefighting resources
- Weather forecasting (Bureau of Meteorology) and fire behaviour prediction (TFS, STT, PWS).

3.3 Fire Management Area controls

Summary of existing control measures for bushfire within FMA include but are not limited to:

- 4 TFS Brigades, with 52 volunteers and retained brigade response crew available during bushfire season
- 1 PWS response crew on Island, and Statewide PWS response crews (Statewide rapid attack, remote area winch capability, seasonal and permanent arrangements) on an availability roster to respond anywhere within Tasmania.
- Community Protection Planning initiatives through the development of Community Bushfire Protection Plans and Community Bushfire Response Plans
- Situational awareness during high FDR days, through alerts and warnings to the community.
- Community Engagement programs including, BRN Engagement initiatives, the delivery of Disaster Resilience Education Tasmania education resources.
- PWS Management Plans
- Fuel Reduction Program throughout key target areas within the FMA – delivered by TFS, PWS and STT and local Council.
- Ongoing maintenance of scheduled works program completed by Hydro Tasmania, for the treatment of flammable vegetation within electrical distribution network.
- Annual inspection and maintenance activities of established strategic fire infrastructure within Parks and Reserves and Crown Land.

4. Analysing and evaluating bushfire risk

4.1 Analysing bushfire risks

A standard risk assessment process was used to determine priorities for this Bushfire Risk Management Plan (BRMP) following the [Tasmanian Emergency Risk Assessment Guidelines](#) and the [Bushfire Risk Management Planning Guidelines 2020](#) (SFMC 2020), which in summary considers:

- Consequences – what values and assets are at risk given the standard bushfire scenario under consideration
- Existing controls – how effective the existing controls are at reducing the risk and how much they are used
- Likelihood – how the likelihood of the consequence occurring is quantified, based on weather, topography, fuels, and ignition potential
- Confidence level – how certain we are about the evidence and data used
- Risk rating and priority score – calculated by the risk assessment tool (SFMC 2020)

All of the above is recorded in the risk register ([Appendix 1](#)).

4.2 Evaluating bushfire risks

The FMAC has identified King Island FMA at risk communities to continue to receive further engagement initiatives, where fuel reduction mitigation activities may not be permissible due to variable constraints. Engagement initiatives (such as - Bushfire Ready Neighbourhood program, Fuel Reduction Program and the Red Hot Tips programs), will promote preparedness and an overall behavioural change to fire mitigation techniques within the landscape.

Critical infrastructure and supporting network facilities for communication, power, water and transport corridors, (e.g. King Island Advanced Hybrid Power Station; Gentle Annie, Counsel Hill and Tower Hill Communication facilities), have been identified for priority actioning to review bushfire risk, where practically possible and implement bushfire mitigation measures as required.

The FMAC has identified a need for responsible agencies to complete further analysis and/or develop strategic bushfire mitigation plans within the predetermined bushfire management zones identified within the treatment plan ([Appendix 2](#)) for human settlement areas bounded by vegetation communities not conducive with planned burning practices, (Grassy, Currie and Naracoopa). Further detailed analysis may follow should key stakeholders determine local mitigation plans be required.

The Pegarah plantation will continue to receive strategic enhancement of strategic fire trails within the land parcel and review tactical plan.

Environmental values (Colliers Swamp, Nook Swamp and Lavinia Wetlands, threatened flora and fauna species) have been evaluated with consideration to vulnerability to bushfire and relative impact. These values will be targeted for treatment, further analysis or monitor and review, primarily by PWS for protection through the strategic application of fuel reduction planned burning, along with the adoption and implementation of strategic bushfire mitigation tactics.

Further details of the key risks identified within the FMAC can be sources from risk register ([Appendix 1](#)).

5. Bushfire risk treatment

5.1 Treatment plan

The Fire Management Area Committee (FMAC) considered the costs, benefits, practicalities, and environmental impacts of various control options for the highest priority risks. The risk treatments that were determined from these deliberations are recorded in the treatment plan ([Appendix 2](#)).

Individual landowners and organisations are usually responsible for implementing the treatments; these are indicated in the treatment plan. One exception is fuel reduction burning that is planned and conducted by the Fuel Reduction Program (TFS, PWS, STT) with the agreement of landowners.

Community education and preparedness coupled with the implementation of strategic bushfire mitigation strategies will be key to sustainable bushfire risk reduction for the King Island community.

The FMAC has identified an importance to further enhance response planning for highly threatened ecosystems and natural values at risk from bushfire (refer to treatment plan ([Appendix 2](#)) for details), such as:

- Colliers Swamp Conservation Area
- Nook Swamp & Lavinia Wetlands within Lavinia State Reserve, and
- Pegarah Plantation.

Critical infrastructure and supporting network facilities for the King Island community, have been identified for priority actioning for ongoing support, monitoring and review, to ensure bushfire mitigation is adhered and support provided when applicable.

Due to complexities for fuel reduction burning on the island, fuel management buffer zones (FMBZ's) and strategic fire trails (SFT) are considered a desirable alternative, where fuel reduction burning is not conducive with particular vegetation type. The towns of Currie and Grassy, require priority actioning for review and implementation in order to provide further protection and aid in suppression efforts.

5.2 Bushfire management zones

For those assets and values where fuel management or other treatments are designated in the treatment plan ([Appendix 2](#)), bushfire management zones are used to delineate the treatment areas.

It is anticipated that bushfire management zones will be identified through the development and enhancement of strategic bushfire mitigation plans by key stakeholders or local mitigation plans should the responsible agency deem it necessary. Priority assets which require development of said plans are identified in the treatment plan ([Appendix 2](#)).

The names of zones and descriptors are provided in [Appendix 3](#).

5.3 Implementing treatments

This Bushfire Risk Management Plan (BRMP) does not guarantee a source of funding for treatment actions, nor does it provide a process for seeking funding. The organisations and individuals that are responsible for delivering the bushfire risk treatments are responsible for developing further plans for implementation, as well as arranging resources and funding.

The BRMP is, however, intended to provide evidence and justification for where funding and resources are most appropriate to be committed by stakeholders to mitigate bushfire risk.

Many treatments identified in this plan will require environmental and cultural impact assessment. These assessments are the responsibility of the individual organisations and are not covered by this BRMP.

From the inception of the Fuel Reduction Program within the FMA, the successful implementation of tactical fire mitigation strategies has been limited or in some cases halted due to various factors outside the practitioner's control, such as:

- Lack of funding for maintenance or establishment of Strategic Fire Trails, Fuel Management Buffer Zones or other mechanical mitigation activities located on private and public lands, for local council and private landholders.
- Limitations on fire mitigation strategies within vegetation communities not suitable for planned burning practices.
- Shifting climatic conditions, which are shortening windows for planned burning.
- Community perception and understanding of 'treatable' and 'untreatable' vegetation, and awareness of vegetation that may or may not be suitable for planned burning within prescriptions.
- Lack of funding for enhanced protection of critical assets and supporting infrastructure.
- Lack of capacity of some of the community to adhere to abatement notices issued by local Council.
- Lack of resourcing on the island to complete maintenance of mechanical bushfire mitigation activities.
- Difficulty in resourcing of planned burning activities. Key land management agencies regularly compete for human and mechanical resources for planned burn activities.

5.4 Strategic fire infrastructure

Strategic fire infrastructure includes access roads, fire trails, tracks, and water sources.

Strategic fire trails in the King Island FMA are listed in strategic fire infrastructure ([Appendix 4](#)). These fire trails are designated because they are essential for fuel reduction and bushfire suppression; they should be regularly maintained to appropriate standards.

A detailed analysis of potential fire trails was completed in the 2009 King Island Wildfire Management Plan. Of the 38 identified fire trails/tracks, only a select few strategic trails have received adequate maintenance for bushfire mitigation. In line with, bushfire management areas identified in [Section 5.2](#), TFS along with with PWS, King Island Council and other key stakeholders, will collaboratively develop localised mitigation strategies in order to enhance the effectiveness of identified strategic fire infrastructures.

Approved water sources for firefighting purposes include:

- Naracoopa (Kibuka Dam)
- Sea Elephant River (x2)
- Counsel Hill fire trails (end of Rekara road)
- Nook Swamp
- Main Lavinia fire trail (Youngs road)
- Lake Flannigan track

5.5 Fuel reduction burning

The Strategic Fire Management Zones (SFMZ) delineate general areas for treatment by fuel reduction burning. Individual burn units are not identified in this BRMP, but will need to be identified within the SFMZ by further planning from the organisations responsible for carrying out the fuel reduction burning.

There are many kinds of vegetation for which it is not appropriate or practical to conduct fuel reduction burning (SFMC 2020); these vegetation communities are described as 'untreatable' and indicated on [Map 4](#). The broad vegetation communities within the FMA can be seen on [Map 5](#).

The [Fuel Reduction Program](#) that is funded, coordinated and implemented by the Tasmania Fire Service, Parks and Wildlife Service and Sustainable Timbers Tasmania is undertaken on behalf of and with the agreement of individual landowners or organisations (e.g. councils). The priorities of the Fuel Reduction Program are guided by the priorities identified in the treatment plans across all Fire Management Areas.

6. Monitoring and review

6.1 Review

This Bushfire Risk Management Plan (BRMP), including appendices and maps, will be subject to a comprehensive review every three (3) years from the date of approval, unless significant circumstances exist to warrant earlier review. The revised BRMP will be based on a new risk assessment that may include revised input methods. The review process will include examination of:

- changes to the Fire Management Area (FMA), organisational responsibilities or legislation
- changes to the bushfire risk in the area
- major bushfire events
- shortcomings in data that can be improved
- change of usage of the area
- new or changed asset values within the FMA

Additional and changed data and values (both community and natural) identified by the review process will be supplied to the Bushfire Risk Unit (TFS) for inclusion in ongoing risk modelling being carried out at the state level.

6.2 Monitoring and reporting

Progress towards completion of the treatments proposed will be monitored and reviewed twice a year by the Fire Management Area Committee (FMAC); this will be documented in the Implementation Status Report which should address as a minimum:

- progress on implementation of treatments listed in the treatment plan, including
- planning outcomes including mitigation plans, community protection plans, community response plans
- implementation progress of community programs
- completed fuel reduction burns
- development and maintenance of Asset Protection Zones (APZ)
- development and maintenance of strategic fire infrastructure

At a Statewide level, the State Fire Management Council will examine the impacts of the strategic burning program on risk management as part of the strategic fuel management program.

References

Fox-Hughes, P., Harris, R.M.B., Lee, G., Jabour, J., Grose, M.R., Remenyi, T.A. and Bindoff, N.L. (2015). *Climate Futures for Tasmania future fire danger: the summary and the technical report*, Antarctic Climate & Ecosystems Cooperative Research Centre, Hobart, Tasmania. Retrieved from http://acecrc.org.au/wp-content/uploads/2015/12/Report_CFT_Future-Fire-Technical-Report_2015_web.pdf.

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TERAG (2017), *Tasmanian Emergency Risk Assessment Guidelines*. Department of Police, Fire and Emergency Management, Tasmania. Retrieved from <http://www.ses.tas.gov.au/about/risk-management/terag/>

Threatened Species Section (2012), *King Island Biodiversity Management Plan*. Department of Primary Industries, Parks, Water and Environment, Hobart.

Appendices

Appendix 1: Risk Register

Notes at the end of the risk register provide explanation for the TERAG code, Asset description and Priority FMAC columns.

TERAG code	Asset category	Asset description (risk statement)	Consequence	Controls effectiveness	Confidence	Combined likelihood	Risk level	Priority FMAC	Treatment options	LGA
KIPU002	Critical Infrastructure	Grassy water catchment area	Major	Low	Moderate	Rare	High	8	Monitor and review	King Island
KIPU001	Critical Infrastructure	Counsel Hill communications towers	Moderate	Low	Moderate	Unlikely	Medium	11	Monitor and review	King Island
KIEC002	Critical Infrastructure	King Island Power Station	Major	Medium	Highest	Rare	High	19	Monitor and review	King Island
KIPU004	Critical Infrastructure	Tower Hill communications towers	Moderate	Medium	Moderate	Rare	Medium	19	Further analysis	King Island
KIPU003	Critical Infrastructure	Gentle Annie communications towers	Moderate	Medium	Moderate	Very Rare	Low	32	Monitor and review	King Island
KISO002	Human Settlement Area	Grassy, Bold Head	Major	Very Low	Highest	Unlikely	High	16	Treatment	King Island
KIPE001	Human Settlement Area	Currie	Moderate	Very Low	Highest	Unlikely	Medium	29	Treatment	King Island
KIPE006	Human Settlement Area	Grassy, Bold Head	Moderate	Very Low	Highest	Unlikely	Medium	29	Treatment	King Island
KIPE002	Human Settlement Area	Loorana	Insignificant	Low	Highest	Rare	Very Low		Further analysis	King Island
KIPE003	Human Settlement Area	Naracoopa	Minor	Very Low	Highest	Rare	Low		Further analysis	King Island
KISO001	Human Settlement Area	Naracoopa	Moderate	Very Low	Highest	Rare	Medium		Further analysis	King Island

TERAG code	Asset category	Asset description (risk statement)	Consequence	Controls effectiveness	Confidence	Combined likelihood	Risk level	Priority FMAC	Treatment options	LGA
KIPE005	Human Settlement Area	Porky Sandblow	Minor	Very Low	Highest	Rare	Low		Further analysis	King Island
KIEN014	Natural Value	Acanthornis, Austrochloritis, King, Melaleuca	Catastrophic	Low	Highest	Unlikely	Extreme	3	Treatment	King Island
KIEN003	Natural Value	Acanthornis, King	Catastrophic	Low	Highest	Unlikely	Extreme	3	Treatment	King Island
KIEN001	Natural Value	Pneumatopteris	Major	Very Low	Highest	Unlikely	High	11	Treatment	King Island
KIEN002	Natural Value	Pneumatopteris	Major	Very Low	Highest	Unlikely	High	13	Further analysis	King Island
KIEN004	Natural Value	King	Minor	Very Low	Highest	Rare	Low		Further analysis	King Island
KIEN005	Natural Value	King	Minor	Very Low	Highest	Rare	Low		Further analysis	King Island
KIEN006	Natural Value	King	Minor	Very Low	Highest	Unlikely	Low		Treatment	King Island
KIEN007	Natural Value	King	Minor	Very Low	Highest	Very Rare	Very Low		Further analysis	King Island
KIEN008	Natural Value	King	Minor	Very Low	Highest	Rare	Low		Further analysis	King Island
KIEN009	Natural Value	King	Minor	Very Low	Highest	Unlikely	Low		Further analysis	King Island
KIEN010	Natural Value	King	Minor	Very Low	Highest	Very Rare	Very Low		Further analysis	King Island
KIEN011	Natural Value	King	Minor	Very Low	Highest	Unlikely	Low		Further analysis	King Island
KIEN012	Natural Value	King	Minor	Very Low	Highest	Rare	Low		Further analysis	King Island
KIEN013	Natural Value	King	Minor	Very Low	Highest	Very Rare	Very Low		Further analysis	King Island
KIEN015	Natural Value	King	Minor	Very Low	Highest	Unlikely	Low		Further analysis	King Island
KIEN016	Natural Value	King	Minor	Very Low	Highest	Unlikely	Low		Further analysis	King Island
KIEN017	Natural Value	King	Minor	Very Low	Highest	Rare	Low		Further analysis	King Island
KIEN018	Natural Value	King	Minor	Very Low	Highest	Very Rare	Very Low		Further analysis	King Island
KIEN019	Natural Value	King	Minor	Very Low	Highest	Rare	Low		Further analysis	King Island
KIEN020	Natural Value	King	Minor	Very Low	Highest	Very Rare	Very Low		Further analysis	King Island
KIEN021	Natural Value	King	Minor	Very Low	Highest	Unlikely	Low		Further analysis	King Island
KIEN022	Natural Value	King	Minor	Very Low	Highest	Unlikely	Low		Further analysis	King Island
KIEN023	Natural Value	King	Minor	Very Low	Highest	Very Rare	Very Low		Further analysis	King Island
KIEN024	Natural Value	King	Minor	Very Low	Highest	Rare	Low		Further analysis	King Island
KIEC001	Production Forest	Cluster of various coupes & plantations	Major	Low	Highest	Unlikely	High	11	Treatment	King Island

TERAG code	Asset category	Asset description (risk statement)	Consequence	Controls effectiveness	Confidence	Combined likelihood	Risk level	Priority FMAC	Treatment options	LGA
KIPU006	Critical Infrastructure	King Island Airport								
KIPU005	Critical Infrastructure	King Island Dairy								

Notes

TERAG Code

First and second characters identify the FMAC: CN = Central North; EC = East Coast; FL = Flinders; HO = Hobart; KI = King Island; MI = Midlands; NE = North East; SO = Southern; TA = Tamar; WC = West Coast.

Third and fourth characters identify the Impact Area: EC = Economy; EN = Environment; PE = People; PU = Public Administration; SO = Social setting (exception – all Human Settlement Areas are coded PE for Economy).

A unique identifier is provided by the final three digits.

Asset Description (Risk Statement)

Production forest description is a list of coupe or plantation codes provided by the owners, although the list is limited to 250 characters so is incomplete in some instances.

Natural value description is a list of the first word of each mapped natural value included in the cluster, in other words, a shorthand summary. The following table provides a key, although reference to the bushfire biodiversity consequence layer in the LISTmap Common Operating Platform is required to distinguish duplicate descriptors (e.g. Eucalyptus = *Eucalyptus morrisbyi* or *Eucalyptus gunnii ssp divaricata*).

Descriptor	Mapping unit name
Acanthornis	<i>Acanthornis magna greeniana</i> King Island scrub tit
Allanaspides	<i>Allanaspides hickmani</i> Hickman's pygmy mountain shrimp in Buttongrass moorland
Antipodia	<i>Antipodia chaostola</i> Chaostola skipper butterfly
Austrochloritis	<i>Austrochloritis victoriae</i> southern hairy red snail and Lavinia threatened species complex
Bryobatrachus	<i>Bryobatrachus nimbus</i> moss froglet
Castiarina	<i>Castiarina insculpta</i> Miena jewel Beetle
Central	Central Plateau unburnt ecosystem
Central	Central Plateau recovering ecosystem
Cloud	Cloud forest refugia
Coniferous	Coniferous rainforest
cushion	cushion moorland
Discocharopa	<i>Discocharopa vigens</i> ammonite Pinwheel Snail
Engaeus	<i>Engaeus martiniger</i> Furneaux Burrowing Crayfish
Eucalyptus	<i>Eucalyptus morrisbyi</i> Morrisbys gum
Eucalyptus	<i>Eucalyptus gunnii ssp divaricata</i> Miena cider gum
Giant	Giant Trees over 90
Giant	Giant Trees under 90
Highland	Highland coniferous heath
Hoplogonus	<i>Hoplogonus bornemisszai</i> Bornemisszas Stag Beetle
King	King Island <i>Eucalyptus globulus</i> King Island blue gum
Lissotes	<i>Lissotes latidens</i> Broad toothed stag beetle
Lomatia	<i>Lomatia tasmanica</i> King's lomatia
Neophema	<i>Neophema chrysogaster</i> orange bellied parrot
Nothofagus	<i>Nothofagus gunnii</i> deciduous beech
Palaeo	Palaeo endemic species catastrophic
Palaeo	Palaeo endemic species major
Phebalium	<i>Phebalium daviesii</i> Davies wax flower
Pherosphaera	<i>Pherosphaera hookeriana</i> drooping pine
Pneumatopteris	<i>Pneumatopteris pennigera</i> lime fern
Regenerating	Regenerating rainforest large patches
Remnant	Remnant rainforest
Sphagnum	Sphagnum
Tetratheca	<i>Tetratheca gunnii</i> shy pinkbells
TWWHA	TWWHA Very Tall Forest over 70 refugia
Melaleuca	<i>Melaleuca ericifolia</i> swamp forest
Notelaea	<i>Notelaea Pomaderris Beyeria</i> forest
Oreisplanus	<i>Oreisplanus munionga larana</i> Marrawah skipper butterfly
Oreixenica	<i>Oreixenica ptunarra</i> ptunarra brown butterfly
Palaeo	Palaeo endemic species moderate
Tasmanian	Tasmanian devil facilities
TWWHA	TWWHA Very Tall Forest over 70

Priority FMAC

The priority FMAC column has been calculated based on risk ratings and likelihood calculated across the entire state for all assets and values considered together. Therefore some numbers may be missing and it is the rank order that is relevant.

Appendix 2: Treatment plan

Notes at the end of the risk register provide explanation for the TERAG code, Asset description and Priority FMAC columns.

TERAG code	Asset description (risk statement)	Priority FMAC	Treatment number	Treatment category	Treatment action detail	Bushfire management zone	Responsible organisation	Completion date proposed	Comment
KIEN003	Acanthornis, King	3	1	Preparedness	Increase suppression capability	SFMZ	TFS/PWS/KIC	30/12/2020	Increase aviation response capability for the Island.
KIEN003	Acanthornis, King	3	2	Preparedness	Development of Strategic Bushfire Mitigation Plan		PWS	30/06/2023	Local mitigation plan may follow should responsible organisation deem necessary.
KIEN014	Acanthornis, Austrochloritis, King, Melaleuca	3	3	Preparedness	Increase suppression capability	SFMZ	TFS/PWS/KIC	30/12/2020	Increase aviation response capability for the Island.
KIEN014	Acanthornis, Austrochloritis, King, Melaleuca	3	4	Fuel reduction	Continue existing planned burn program	SFMZ	PWS	ongoing	Responsible organisation to continue and enhance existing fuel reduction burn program, within burning prescriptions.
KIEN014	Acanthornis, Austrochloritis, King, Melaleuca	3	5	Preparedness	Development of Strategic Bushfire Mitigation Plan		PWS	30/12/2022	Local mitigation plan may follow should responsible organisation deem necessary.
KIPE001	Currie	4	6	Preparedness	Development of Bushfire Mitigation Plan	SFMZ	TFS	31/12/2022	Local mitigation plan may follow should responsible organisation deem necessary.
KIPE001	Currie	4	7	Behavioural change initiatives	BRN engagement	AZ	TFS	ongoing	At request of local council - January 2020 & December 2020
KIPE001	Currie	4	8	Community safety	Abatement Notification	AZ	KIC	ongoing	King Island Council will complete abatement notifications during fire permit period on residential properties under the Local Government Act.
KIPE003	Naracoopa	5	9	Preparedness	Development of Bushfire Mitigation Plan	SFMZ	TFS/KIC	30/12/2023	Vegetation communities surrounding Naracoopa are determined to be highly flammable vegetation that is

TERAG code	Asset description (risk statement)	Priority FMAC	Treatment number	Treatment category	Treatment action detail	Bushfire management zone	Responsible organisation	Completion date proposed	Comment
									largely unsuitable for planned burning practices. Strategic fire trails and fuel breaks should be considered.
KIPE003	Naracoopa	5	10	Community safety	Abatement Notification	AZ	KIC	ongoing	King Island Council will complete abatement notifications during fire permit period on residential properties under the Local Government Act.
KIPU002	Grassy water catchment area	8	11	Preparedness	Development of Emergency Management Plan	SFMZ	TasWater		Include in Grassy Strategic Mitigation Plan
KIEC001	Cluster of various coupes & plantations	11	12	Preparedness	Review Landfill Fire Management Plan	AZ	KIC/TFS	31/12/2021	Fire management plan for the Landfill to be audited.
KIEC001	Cluster of various coupes & plantations	11	13	Preparedness	Increase suppression capability	SFMZ	TFS/STT		
KIEC001	Cluster of various coupes & plantations	11	14	Fuel reduction	Review King Island Tactical Plan.	APZ	STT		Fire Trail review, Fuel treatment analysis. Local mitigation strategy to follow if agency deems it necessary Pegarrah plantation contains stands of plantation pine, eucalypt plantation and natural forest. There is a potential for fire to escape from Perenna Landfill site, resulting in economic loss to STT.
KIEN001	Pneumatopteris	11	15	Preparedness	Development of Strategic Bushfire Mitigation Plan		PWS	31/12/2023	Whole of Island Plan required for protection of asset. Local mitigation plan to follow

TERAG code	Asset description (risk statement)	Priority FMAC	Treatment number	Treatment category	Treatment action detail	Bushfire management zone	Responsible organisation	Completion date proposed	Comment
KISO002	Grassy, Bold Head	16	16	Fuel reduction	Continue existing fuel break maintenance	AZ	KIC	ongoing	should responsible organisation deem necessary. King Island Council to continue maintenance of existing fuel breaks and fire trails.
KISO002	Grassy, Bold Head	16	17	Fuel reduction	Continue existing fuel reduction program	SFMZ	TFS	ongoing	Responsible organisation to continue and enhance existing fuel reduction burn program, within burning prescriptions.
KISO002	Grassy, Bold Head	16	18	Community safety	Abatement Notification	AZ	KIC	ongoing	King Island Council will complete abatement notifications during fire permit period on residential properties under the Local Government Act.
KISO002	Grassy, Bold Head	16	19	Preparedness	Development of Bushfire Mitigation Plan	SFMZ	TFS	31/12/2021	Existing fuel breaks and fire trails to be enhanced.
KIPU004	Tower Hill communications towers	19	20	Fuel reduction	Development of Strategic Bushfire Mitigation Plan		KIC/TFS/Telstra	31/12/2023	Local mitigation plan may follow should responsible organisation deem necessary. Consider combining plan with Currie
KIPE002	Loorana		21	Preparedness	Review King Island Airport Emergency Response Plan	APZ	KIC	30/06/2021	Existing Emergency Response Plan for KI Airport to be reviewed by responsible organisation.

Appendix 3: Bushfire Management Zones

Zone	Primary purpose	General location	Risk treatments
Asset Zone (AZ)	To identify assets and values requiring bushfire exclusion.	The physical boundary of the asset.	Building design elements such as: fire-resistant materials, ember proofing, sprinklers, water storage etc. Response plans.
Asset Protection Zone (APZ)	To protect human life, property and highly valued assets and values.	Adjacent to Asset Zones or elements in the landscape that can be used to this effect. Width determined by characteristics of the asset and the bushfire hazard (effective slope, vegetation type). This zone may encompass multiple land tenures.	Intensive bushfire fuel treatment around specific assets and the urban–rural interface to provide a fuel reduced buffer. May include both burning and mechanical fuel reduction. Includes Hazard Management Areas. Manipulation of fuel moisture (e.g. sprinklers), response plans.
Strategic Fire Management Zone (SFMZ)	To provide areas of reduced fuel in strategic locations, to reduce the: <ul style="list-style-type: none"> • speed and intensity of bushfires • potential for spot-fire development • size of bushfires. To aid containment of bushfires.	Located close to or some distance away from assets (e.g. the urban–rural interface). Identified fire paths inform the location and delineation of the zone.	Fuel reduction burning, including broad-scale fuel treatment. Management should aim to achieve mosaic fuel reduction patterns. Fire intervals and intensity generally do not exceed ecological thresholds. Other bushfire protection measures to assist bushfire control: fire trails, water points, detection measures, response plans.
Land Management Zone (LMZ)	To meet the objectives of the relevant land manager such as: Traditional Owner practices, biodiversity conservation, production forestry, farming, research or recreation.	Any bushland areas outside the above zones.	Various, but can include planned burning, experimental treatments, fire exclusion or no planned action.

Appendix 4: Strategic Fire Infrastructure

Fire Infrastructure name	Location description	Responsible organisation	Standard	Strategic purpose
Grassy Fuel Break	Fuel break surrounding Grassy township.	KIC	Slashed – light attack vehicle	Protection.
Grassy	Fuel break under powerlines at Grassy to town water supply.	KIC	Slashed – no vehicle access	Protection
Red Hut Road	King Island - South	KIC	Light/Medium Attack	Access
Red Hut Rd to Sandblow beach fire trail	King Island - South	KIC	Light/Medium Attack	Access
South Road	King Island - South	KIC	Gravel	Access/ back burning
Seal River Road	17km - Seal River Rd and track along Colliers Swamp	PWS	Class 1	Access
Big Lake to Millers Rd	King Island - South	PWS	Class 5	Access/ back burning
Seal Rocks Rd	King Island - South	KIC & PWS	Class 5	Access
Seal Rocks Link fire trail	King Island - South	PWS	Class 5	Access/ back burning
Lighthouse St fire trail	Currie	KIC	Slashed – light attack vehicle	Access / backburning / protection
Charles St (extension) fire trail	Currie	KIC	Slashed – light attack vehicle	Access / backburning / protection
Bell Hill fire trail	Currie	KIC	Slashed – light attack vehicle	Access / backburning / protection
Badger Box Creek fire trail	Currie	Private	TBA	Access
Netherby Rd / Huxley Hill fire trail	South of Currie	Private	Light/Medium Attack	Access
Bicentennial Link and Sea Elephant Rd	King Island East	PWS	Class 5 Dry conditions only	Access / backburning
Sea Elephant River fire trail	King Island East	PWS	Class 5	Access / backburning
Fraser Beach fire trail	King Island East	PWS	Class 5	Access
Counsel Hill fire trail	King Island East	PWS	Class 5 4WD only	Access / backburning / protection
Counsel Hill Link fire trail	King Island East	PWS	Class 5 4WD only	Access / backburning / protection
Nook Swamps Walking Track (9-Mile Beach Fire trail)	King Island NE	PWS	Class 5 4WD only	Access / backburning

Martha Lavinia Rd and Lavinia Beach fire trail	King Island NE	PWS	Class 5	Access / backburning
Boulder Point track	King Island East	Private	Light attack	Access / backburning
Springs Road	King Island East	KIC	Light/Medium Attack	Access
Phoques Bay track a	King Island West	Private	Light attack	Access
Phoques Bay track b	King Island West	Private	Light attack	Access
Martha Lavinia Reserve Break (trail 26, 27 & 28)	29.8km - From Saltwater Creek in the south to Martha Lavinia Rd in the north	PWS	Class 5	Access, fuel break and back burning.

Appendix 5: Current implementation plans

Plan owner	Plan title	Year	Treatment numbers
TFS	Community Bushfire Response Plan Currie	2019	
TFS	Community Bushfire Response Plan Grassy	2019	
TFS	Community Bushfire Protection Plan Currie	2019	
TFS	Community Bushfire Protection Plan Grassy	2019	
TFS	Community Bushfire Protection Plan Naracoopa	2019	
KI Council	King Island Recovery Manual	2019	
PWS	King Island Emergency Response Plan	2017	
KI Council	King Island Municipal Emergency Management Plan	2016	
KI FMAC	King Island Wildfire Management Plan	2009	
PWS	Fire Management Plan for King Island Reserves and Crown Land	2002	

Maps

All maps are published on LISTmap; Maps 3 and 4 are not published in full in the BRMP because they include too much detail to be seen on an A4 map.

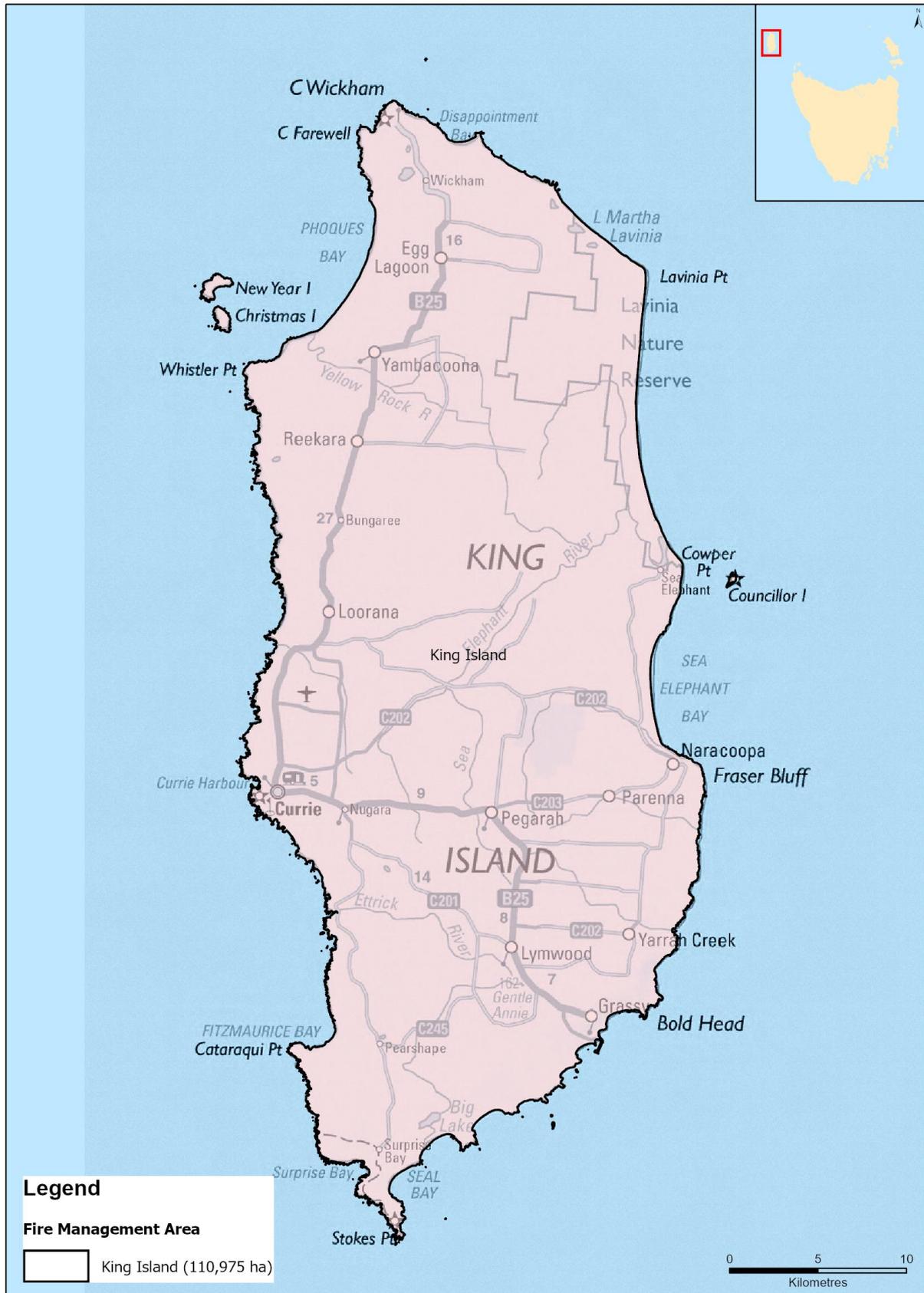
To view a map in LISTmap, follow these instructions:

1. Click on the hyperlink, for example:

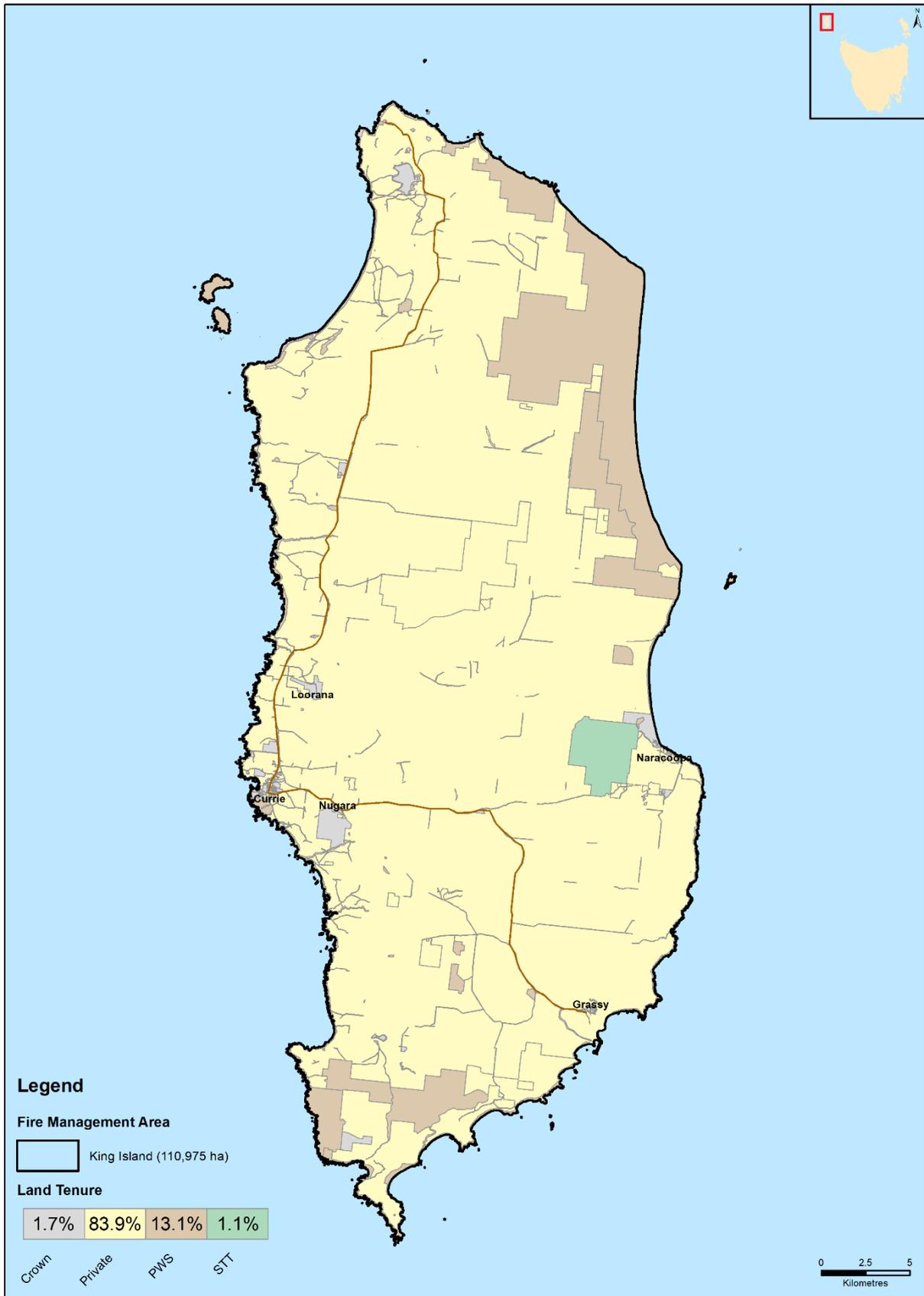
<https://maps.thelist.tas.gov.au/listmap/app/list/map?bookmarkId=605824>

2. To view the legend, click on the Layers tab on the right side of the map window. The layers in the map each have a legend which can be viewed by clicking on the arrow at the left of the item in the Layers window.
3. To zoom in or out of the map, click on the Tools tab on the left side of the map window, then click on Map Tools – a tool bar will appear with zoom in and out icons. If using a mouse with a wheel, zoom in and out by rolling the wheel.
4. Move around on the screen by clicking on the screen, holding the button, and dragging.
5. To find out more information on a map item or location, click on the map once and an 'Identify Results' box will appear with details on all layers for that point. Click on the arrows at the left side of this list to view more information.

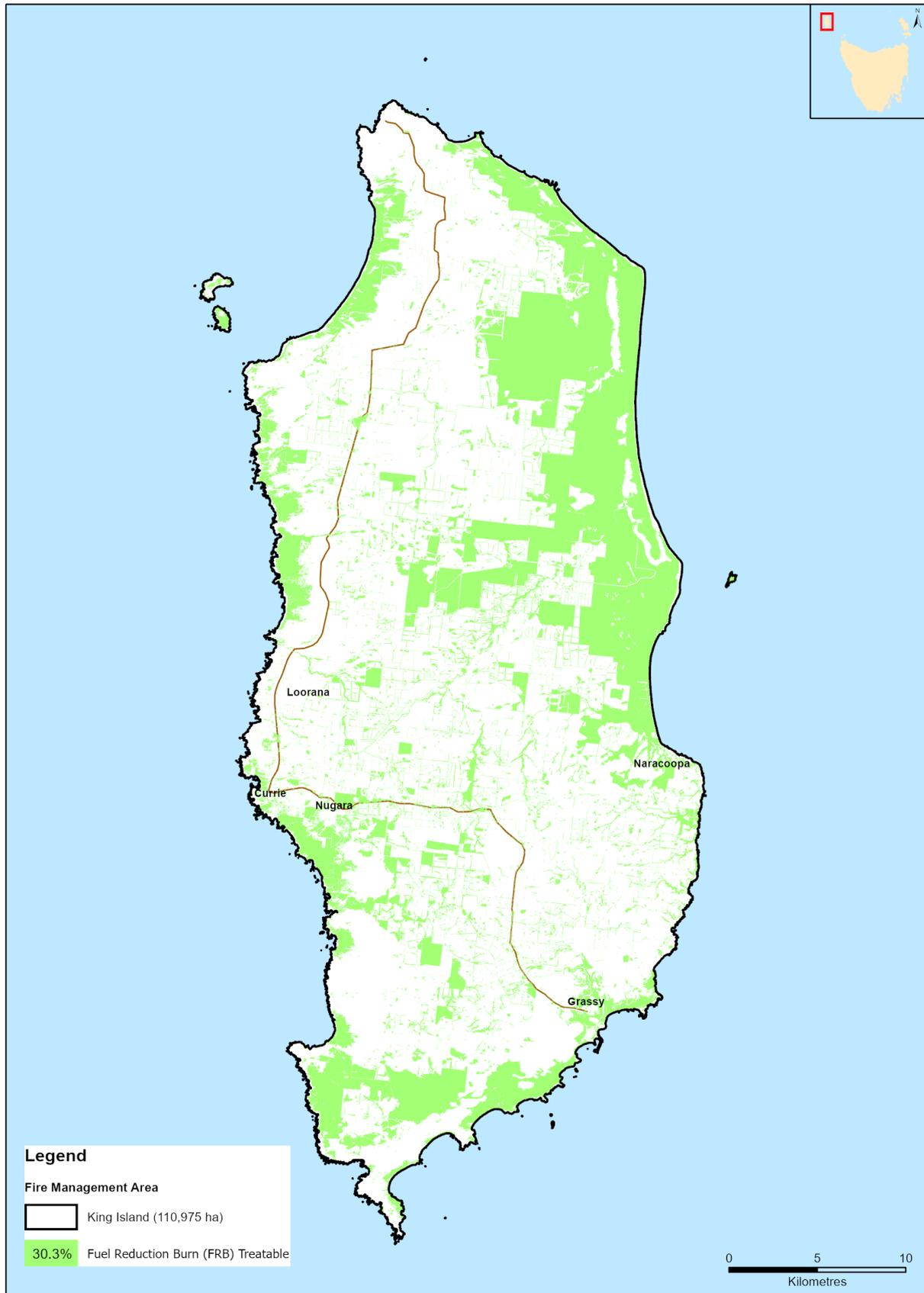
Map 1: King Island Fire Management Area location



Map 2: Tenure summary map for King Island Fire Management Area



Map 4: Fuel treatability for King Island Fire Management Area



Map 5: Vegetation for King Island Fire Management Area

