


Rabbit Strategy

2022-2025

Bass Coast Landcare Network





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Strategic rabbit control on the Bass Coast

The management and measurement for rabbit control is set out in the Vision, Objectives and Measurables in this strategy. A mechanism to achieve the Vision, Objectives and Measurables is through the implementation of the Rabbit Action Plan. The Rabbit Action Plan will guide the on ground works of the Bass Coast Landcare Network and strategy partners. Strategy partners include private land managers; Landcare groups; Phillip Island Nature Parks; Bass Coast Shire Council; Parks Victoria, Committees of Management and other public land managers.

Rabbit Strategy Vision & Objectives

Vision

Creating opportunities to achieve Rabbit Free areas and to strategically suppress rabbit impacts to benefit biodiversity, agricultural and social amenity assets in the Bass Coast Landcare Network area.

Objective 1

To establish Rabbit Free Zones (see Appendix 1 Criteria for Rabbit Free Zone) on targeted rural, conservation and urban areas to trial approaches and demonstrate success in control through the improvement in high priority species and landscapes

- Goal: Select zone in each major landscape areas (Urban, Rural, Conservation) based on known assets and community values, gain understanding of landscape factors that support rabbits and rabbit burrows
- Goal: Seek sufficient funding, community and local landholder support for the achievement of rabbit free zones in 3 to 5 year time frames based on the site(s).
- Goal: Actively recruit community members and agency staff to implement rabbit and key species monitoring to determine changes in distribution and density monitored species across the targeted zone(s).
- Goal: Implement innovative best practice rabbit management, learning from implementation of works in each zone to achieve no active burrows and no evidence of rabbit presence within the zone, in 3-5 years following completion of rabbit proof fencing boundaries.

Objective 2

Facilitate the establishment of zones where rabbit numbers and rabbit impacts are suppressed to help enable measureable improvements in a range of designated species over land manager agreed areas of both public and private land.

- Goal: Select zones in each major landscape areas (Urban, Rural, and Conservation) based on known assets and community values, where there is an understanding of landscape facets that support rabbits and rabbit burrows to manage rabbit numbers & impact to enable a positive response in high priority assets.

- Goal: Trial innovative rabbit and priority species management in selected rural, conservation and urban areas to inform improvements in on ground implementation.

Objective 3

Community involvement and education:

- Goal: Provide opportunities with workshops, on ground facilitation for community members to become aware of rabbit impacts (monitor plots; specialist advice; landholder testimonials), rabbit monitoring methods (RabbitScan/RRAG) and rabbit management activities in a range of environments community agreed sites.
- Goal: Work with the community in rural, conservation and urban areas set up rabbit management sites (3-9) to trial and to demonstrate innovative best practice rabbit management providing results to each local rabbit action/street based groups using a range of media sources direct to members.
- Goal: Train community and agency staff (3-10 workshops/street BBQs/meetings per year) to update skills in rabbit monitoring, rabbit management (such as RPF, harbour destruction, monitoring data collection) and monitoring of key and or indicator species being protected from rabbit impacts.
- Goal: Actively recruit community members to be 'champions of rabbit management' or choose a 'plant species' champion (Recruitment targets; year one: -5; year two 15; year three 45 local community champions) across rural and conservation landscapes.
- Goal: Actively recruit community members to be champions of their rabbit free property in urban areas with a recruitment target of 15 streets/or activity zones (i.e. a natural groupings of streets) per year.

Objective 4

Increase collaboration, resourcing, and support for rabbit control.

- Goal: Increase the level of funding and resources to implement the action plan beyond the current scope of funding.
- Goal: Develop enforcement approach, and process to achieve agreement with enforcement agencies for timelines to enact enforcement procedures based on the failure of non-participants in community lead rabbit management.

Objective 5

Accountable, effective and efficient delivery of rabbit management on the Bass Coast.

- Goal: Independent review of rabbit free and rabbit suppression control efforts; and community education program to identify improvements, recommend changes and to promote any lessons and successes from the ongoing rabbit management program.

Rabbit Strategy Measurables

Objective 1	Goal	Measurables		
To establish Rabbit Free Zones on targeted rural, conservation and urban areas to trial approaches and demonstrate success in control through the improvement in high priority species and landscapes.	Select zone in each major landscape areas (Urban, Rural, Conservation) based on known assets and community values, gain understanding of landscape factors that support rabbits and rabbit burrows.	Criteria for Zones collection agreed & supportable with sufficient budget.	<u>9</u> Zones for rabbit free areas selected: <ul style="list-style-type: none"> • Rural farming • Rural conservation • Urban 	Baseline monitoring rabbits, burrow GPS (active /non active burrows); RRAG; Spotlight transect completed in each Zone & adjoining land for comparison.
	Funding approved to achieve rabbit free zones in 3 year /agreed time frame.			
	Actively recruit community members and agency staff to implement rabbit and key species monitoring to determine changes in distribution and density across the targeted rabbit free zone.			
	Independent review of rabbit free program works to identify improvement, changes improvements and successes.			

Objective 2	Goal	Measurables	
Facilitate the establishment of zones where rabbit numbers and rabbit impacts are suppressed to help enable measureable improvements in a range of designated species over community agreed areas of and both public and private.	Actively recruit community members and agency staff to implement rabbit and key species monitoring to determine changes in distribution and density across the targeted rabbit suppression zone.	Working group (community members and agency staff) formed with terms of reference are aims & objectives of the rabbit strategy. Meeting schedule established for period of strategy.	
	Select zones in each major landscape areas based on known assets and community values, where there is an understanding of landscape factors that support rabbits and rabbit burrows to manage rabbit numbers & impact to enable a positive response in high priority assets.	Zones(3-9) selected <ul style="list-style-type: none"> • Rural farming • Rural conservation • Urban. 	Baseline monitoring rabbits, burrow GPS (active/non active burrows); RRAG; spotlight transect completed in each Zone & adjoining land for comparison.
	Trial innovative rabbit and priority species management in selected rural, conservation & urban areas to inform improvements with on ground implementation.	Number of innovative management per rural, conservation and urban areas	

Objective3	Goal	Measurables		
Community involvement and education:	Provide opportunities for workshops, on ground facilitation for community members to become aware of rabbit impacts (monitor plots; specialist; Landholder testimonials), rabbit monitoring (RabbitScan/RRAG) rabbit management in a range of environments (specify no.).	Identify landholders with rabbit issues based on problems caused, landholders likely to be or are leaders in community; problem solving skills; willingness to lead a local rabbit group and or keen to help establish community rabbit monitoring	Working group representative of major land managers(public/private) landcare; Conservation and Specialist individuals and or groups; formed with terms of reference that are the aims & objectives of the rabbit strategy. Meeting schedule established for period of strategy.	Meeting group; agenda; discussion; results from meeting; allocation to joint & individual works ;working bees; projects; results/successes provided in social media platform.
		Landholder recruitments targets <ul style="list-style-type: none"> • Year One: up to or above 15 • Year Two: up to or above 25 • Year Three: up to or above 20 and/or 50% increase • Year Four and on: +10% 		

Objective 4	Goal	Measurables	
Build and sustain funding to deliver Objectives 1-5	Actively seek commitment from agency & community to fund the delivery of the current strategy.	Funding secured for life of strategy	Ongoing funding to maintain gains and expand on success of the strategy.
Objective 5	Goal	Measurables	
Accountable, effective and efficient rabbit management	Independent review of rabbit free and rabbit suppression control efforts and results and; community education program works to identify improvements, recommend changes and or improvements.	Review delivered, results provided and recommendation for implementation improvements scheduled and successes promoted.	

The European Rabbit

The European rabbit (*Oryctolagus cuniculus*) has and continues to have devastating landscape changing impacts on the land, plants, animals and ecosystems since its introduction in the 1860s. The rabbit is known to impact on 321 species, and have impacts on more listed threatened taxa (EPBC Act) than plant diseases, weeds, feral cats, pigs or foxes (Kearney, S., et al . 2019). The economic impacts of rabbits result from loss in agricultural production, erosion, and control efforts.

Rabbits in the Bass Coast are well established creating issues including:

- reduced survival of native plant species (see Appendix 2 Case Study:- Trigger Plant), providing a food sources for breeding rabbits and helping to support foxes and feral cat populations;
- reducing agricultural productivity; potentially spreading livestock disease (Johne's disease) ; introducing, sustaining and increasing weed burden; sustaining higher fox numbers
- impacting infrastructure, (buildings services/ roads);
- contributing to weed invasion by exposing bare soil and carrying seed to new locations;
- erosion; and
- reducing public amenity.

Rabbit breeding cycle on the Bass Coast

The European rabbit is a Mediterranean species which can tolerate and survive climatic extremes of arid and alpine environments. The rabbit's high rate of breeding is the key to its sustaining populations even under intense, predator pressure whether human or fox, cat, and/or aerial predators. The survival of young is substantially increased by the presence and utilisation of burrows which drain well and are located close to food sources, which in the Bass Coast are typically non-native grasses. Warrens consist of a network of burrows underneath the ground. Rabbits rely on warrens for shelter and protection from climatic extremes and predators. The complexity of a warren depends on the soil structure and the height of the water table.

Rabbit breeding peaks are linked to sufficient rainfall and ground warmth for grass to grow. Rabbits need approximately 10-16% protein to begin the breeding cycle and feed their young until they can consume feed outside the burrow. Across most of Victoria, rabbit breeding cycles begin late winter sometimes through to early summer (May-Dec) with breeding ceasing when protein levels drop as green feed dries off. Rabbits on the Bass Coast given wet summers (i.e. La Nina) could be expected to breed all year round.

Effective long term (+20 years) rabbit control

Effective long term (+20 years) control of rabbits occurs with the application of proven best practice control applied at the right time in the rabbit lifecycle and in the correct sequence. The rabbit will, due to its very high fecundity, out breed most single control measures (one off baiting; fumigation; shooting etc.). Successful rabbit breeding requires earthen burrow systems, in well drained soils, close to high quality food sources, especially introduced grasses. Best practice integrated control uses a combination of baiting to reduce the numbers of rabbits that can occupy burrows, warren modification to destroy burrows and stop access to burrows for successful breeding, and follow up controls to stop rabbits reopening burrows.

Legislation Victorian Catchment and Land Protection (CaLP) Act

The European rabbit (*Oryctolagus cuniculus*) is declared an established pest animal and all land owners are required to manage rabbits. The CaLP Act can be applied to compel land owners to control rabbits

The techniques that are recognised under the Victorian CaLP Act for controlling rabbits can be categorised as primary methods and secondary (inferior) methods. Primary methods, when combined, result in long-term reductions in rabbit populations. Alternatively, secondary (inferior) approaches cannot achieve long-term reductions in rabbit numbers. These ineffectual techniques are often used in semi-rural or urban areas where primary control measures are not well understood. Secondary approaches such as shooting, ferreting, and trapping are very occasionally used to try to mop up (<1 rabbit per ha) after primary control operations. Those approaches alone cannot keep rabbit populations low without significant resources and close monitoring.

Natural mortalities, including endemic rabbit viruses (Myxomatosis/RHDV), help suppress rabbit populations and primary control measures can be timed to take advantage of drought, virus outbreaks, and predator impacts to maximize and maintain population decline. Integrated rabbit management during severe and/or prolonged drought will maximize the impact of your control program. Modification of burrows that stops the use of burrows for breeding, as part of an integrated best practice approach, will result in long-term suppression of rabbit impacts.

Other legislation relevant to rabbit management is provided in Appendix 4.

Primary successful control methods

Initial knockdown

- Targeted poison baiting
- Burrow Modification (destroying burrows/warrens)
- Use of targeted discreet implosion (destroying burrows/warrens)
- Removal of surface harbour (e.g., weeds such as Blackberries)

Back up Maintenance control

- Fumigation of re-opened, inaccessible, or missed warrens.

- Spot baiting of warren areas that cannot be ripped or where hot spots occur post ripping.

Secondary ineffective approaches

- Shooting
- Trapping, soft-jaw leg hold, cage, and tube traps.
- Ferreting
- Gas gun (a form of concussive rabbit killing)
- Re-releasing RHDV 1 and or RHDV K5

For broad-scale rabbit management, shooting, trapping, and ferreting are at best recreational pursuits that have little or no long-term impact on maintaining low rabbit populations (Williams et al. 1995). The RHDVs are endemic, with outbreaks occurring principally of RHDV2 (i.e. dominant strain) based on suitable climatic conditions for vectors (e.g. flies), age structure of rabbit population, and sufficient susceptible rabbits which will succumb to virus.

The model Code of Practice, for rabbits and Standard Operating Procedures (SOPs), including Fumigation; Burrow destruction; Baiting; that support the CoP, are available at <http://www.feral.org.au/animal-welfare/humanecodes>

Best Practice Rabbit Control Methods

The combination of baiting, warren modification, and follow up controls (i.e. fumigation, spot baiting implosion) at the right time in the rabbit lifecycle and in the correct sequence will result in 90-98% reduction in rabbit numbers for periods of greater than 20 years (Williams & Moore 1995; Williams et al 1995; McPhee & Butler 2010; Forsyth et al 2016).

Descriptions and discussion of these control measures, including both primary and secondary control is provided in Part One Description of Rabbit Control Methods. Risk analysis of these control measures was carried out (Appendix 2) to inform the adapted best practice rabbit control solution for the unique situation at Falls Creek.

Adapted Best Practice Rabbit Control

The combination of best practice control methods enables land managers to ensure all rabbits are exposed to lethal controls and the opportunity to breed successfully is stopped or significantly minimised.

Research demonstrates that the removal of the breeding resource of safe burrows is the pivotal factor to achieve low rabbit populations, reduced impacts at low cost and to contain the population for long periods (i.e. +20 years) (William & Moore 1995; Williams et al 1995; McPhee & Butler 2010; Berman 2011; Forsyth 2016). This has been successful in large scale works (Williams et al 1995) to intense infestations in agricultural zone over 1000 ha areas (Werribee Treatment Plant Bloomfield & Spear 2019) and in creating rabbit free areas (1-5 ha) at Werribee Open Range Zoo (Bloomfield & Spear 2022).

Rabbit proof fencing is a barrier to rabbit movement that has been used for over 100 years to stop rabbits accessing areas to establish burrows, protect assets and to help landscapes gain the benefits of being rabbit free. William & Moore (1995) noted of the combination of

methods that constitutes best practice rabbit management, the most important is burrow destruction and if you only had one method available it should be burrow destruction (Berman 2011; McPhee per comms).

Best practice can be adapted in urban areas to limiting rabbit access to infrastructure by modifying the bottom edge of buildings to stop rabbits accessing the safe shelter and the chance to construct or use existing burrows to breed the next generation of rabbits. Some burrows adjoining, under infrastructure and in open disturbed environments may be treatable with fumigation and or burrow destruction (mechanically & or by hand digging). Burrows under natural or constructed ledges (road/ building cuttings/embankments) may be treatable with fumigation, rabbit proof netting placed on the ground to cover burrows or areas suitable for burrowing, construction of small enclosure(s) to net the burrows in with RPF, and mechanical destruction where appropriate is always the best long term method.

Bass Coast Rabbit Management Options

Responding to the rabbit issue on the Bass Coast can be approached in several ways:

1. Crisis management: involves reacting when rabbit numbers are high and is rarely successful.
2. No management: This results in more rabbits colonising more areas to construct more burrows leading to more rabbits. The history of rabbits colonising one treatment sites on Pi & Bass Coast is evidence of the little or no management approach of adjoining land managers.
3. Eradication: which is rarely achievable and would require the substantial barrier of rabbit proof fenced boundaries
4. Strategic management: involves a process to set up areas for long-term suppression(+/-20 years) and targeted eradication in rabbit proof fenced areas that will effectively manage rabbit impacts.

Strategic management best addresses the aim to eradicate rabbit in key areas and suppress rabbit populations in the long-term.

There are two basic methodologies to achieve and sustain strategic long term rabbit control:

1. 'Mid to long term reduction of an obligate resource' (i.e. burrows), 'which is not easily restored' (i.e. burrow destruction/ exclusion from burrows), (Lurgi et al 2016., Williams & Moore 1995).
2. General population reduction (killing individual rabbits) (Lurgi et al 2016., Williams et al 1994).

The first approach reduces the capacity of rabbits to support and raise young. Burrows are essential for the birth, survival of young rabbits and greatly improve opportunity of rabbits to reach breeding age. Warren modification (ripping/implosion/exclusion) reduces very significantly the immediate and long-term numbers of rabbit reared in the landscape. The second approach is the killing of individual rabbits without affecting breeding survival. Thus rabbits will both quickly rebuild in numbers and re colonise treated areas.

The warren is the rabbit's Achilles heel, destroy the warren and you can beat the rabbit. Warren destruction is the key to achieving cost effective long-term control. After rabbit harbour is destroyed, or rabbits are excluded from access to burrows, the then reduced populations of rabbits can be maintained at low levels with low input cost for extended periods of over 20 years.

The impact of rabbits requires action by each land manager public and private. Bass Coast Landcare Network is determined to help land managers manage rabbits effectively and efficiently with the aim to achieve long term suppression of rabbit numbers, reduce impacts, establish a regime of low-cost maintenance and enable benefits of low rabbit numbers for public and private land managers to be realised. Eradication can be targeted to areas of greatest value for the recovery of native species; to test and demonstrate effective control measures; and create landscapes that are more representative of country, pre colonisation by invasive species.

Phillip Island perceived constraints on best practice rabbit control

There are control measures which the traditional application can require modification to enable effective and efficient rabbit management in presence of non-target species, and other local constraints. The role of managers in a rabbit program, both private and public land managers, is to be aware of the effect of changes to the application and implementation of best practice management on the rabbit population, rabbit impacts and the perception of the stakeholders and the public. Some of effects on rabbits from the use of single control approach is provided in Appendix 3. Each of the major components of best practice are considered In Appendix 4 considering effects, actions and adaptations for rabbit control.

Rabbit Monitoring

Rabbit presence will be monitored across rabbit management zones. Monitoring will include spotlight counts of rabbits sighted, dung assessments on transects and warren/burrow assessment recording location and activity. It is essential to have two methods of monitoring for rabbits (e.g. Spotlight index & Active Burrow Counts)

These techniques are described in detail at <https://pestsmart.org.au/wp-content/uploads/sites/3/2020/06/Monitoring-techniques-for-vertebrate-pests-rabbits.pdf>

Bass Coast Rabbit Action Plan

This action plan provides a methodology that Bass Coast LandCare Network (BCLN) can adopt on selected sites where eradication or long term suppression is being sought. The action plan nominates proven methods that when implemented can achieve local eradication or long term population reduction, suppression of rabbits and rabbit impacts (15 year+ to indefinite). This document, the Action Plan approach is adopted, from Moseby (2016). *NOTE:- modification of best practice techniques may be required and can be tested to be adopted as part of BCLN; PINP & Council rabbit management programs.*

Rabbit management methodologies

- Option A. Eradication of rabbits. No rabbits detected by any monitor method

- Option B. Set accepted numbers of rabbits: - 0.1-0.5 per spotlight kilometre & /or 0 burrow per ha.

Rationale for Options

A. Eradication

The following steps must be achievable for the managers to make eradication a reality

1. Cost benefit analysis favours eradication over control
2. All individuals at risk from control methods
3. Rabbits must be killed at a rate faster than replacement rate at all densities
4. Immigration zero
5. Monitoring possible at low levels
6. Socio-political environment favourable

Eradication of rabbits in a rabbit proof area/site is:

- Achievable
- Research proves current control measure can eradicate rabbits, where no immigration occurs
- Warren burrow destruction in combination with other integrated measure can ensure successful breeding is reduced even eliminated
- Immigration/colonisation into SITE is stopped by the current maintained rabbit proof fence
- Monitoring has been demonstrated to detect rabbits at very low populations levels
- Eradication is maintainable at a much lower cost than Option B (0.1-0.5 rabbit per klm) where breakouts will occur.

The mechanism for achieving eradication is known, has been applied in other much larger sites (Roxby Downs; Mulligans Flat) successfully with corresponding long term benefits to native species.

B. Rabbit numbers 0.1-0.5 per spotlight kilometre/0 burrow per ha

- Less costly then eradication in year one, but Option B is more costly to maintain.
- Current research indicates with no immigration into site, low rabbit numbers, with effective maintenance could be held (0.5-0.1 per klm) for 15-18 years probably indefinitely while monitoring detects changes in population and effective timely response stops build up in numbers.
- Immigration without RPF will be result in colonisation of destroyed burrows, requiring a monitoring program that detects reopenings & a control program available to remove colonising rabbit & modify burrows.
- Will initially support return of native plant species with immediate change in rabbit grazing pressure.

- Can be achieved more rapidly than eradication, with an appearance of success, that is difficult sustain without ongoing commitment to funding efficacious monitoring and control.
- Cost of holding rabbits at low levels is ongoing, rabbit population can return to very high numbers with funding variations, staff changes and unique weather events (i.e. multiple La Nina's).
- Requires significant investment in monitoring to enable rapid & effective response to any increases in rabbit numbers.
- Increases in distribution and density of brush tail possums, cape barren geese, water hens and wallabies will continue and may see even greater densities following change in rabbit grazing pressure complicating future rabbit control efforts

"..funding is never forever due to the capricious nature of funding sources and processes. Hence eradication should be the goal" (Jack Kinnear 2013)

Action Plan

The following brief action plan is provided as a guide for implementation in areas selected.

Both Plan A. Eradication and Plan B. Low rabbit numbers 0.1-0.5 per klm/0 burrow per ha have the same initial phases. Plan B. does not have the eradication phase.

Phase 1. Pre control measures/actions June 2022 April 2023

Gain prior approvals for the range of methods to be used including:

- 1080 poison baiting/long periods free feeding (oats and/or carrot baits).
- Broudscale warren modification using excavators (15-20t) experienced operators.
- The use of fire to clear understorey.
- Detection dogs to find rabbits/harboursing areas/flush animals from harbour.
- Slashing to clear understorey for easier rabbit detection.
- Rabbit proof fencing (includes gates) management units and maintenance cost.
- Spotlight shooting- including the use of infrared scopes and thermal imaging from vehicle and on foot, the use of guns on foot with dogs and the use of long range rifles in hides.
- Removal or temporary movement of harbour to access warrens and rabbits for control.
- Conduct a fence audit of the netting fences by walking ALL NETTING fences in the SITE area. Use a GPS to mark holes and areas where repair is needed. Use information to help determine the final size and location of internal fence management units (Option A or B).
- Budget secured for entire operation by prior to start with 20% contingency.
- Outside SITE treatment program for adjoining landowners aiming for 90-95% reduction in rabbit to reduce pressure on RPF.
- Knockdown phase (see below) agreed to activate for 3 month periods (Jan - Feb 2023).
- Agreement on a fast approval process for any future methods that may be employed.
- Approval all methods prior to start.

NOTE: Criteria for selecting sites for rabbit free works is provided in Appendix 1.

Experience with large scale and complicated pest control programs demonstrates that the following personnel and manager requirements are essential:

1. Experienced professional contractors with agreed start, set quality standards , known completion goals and end point.
2. Experienced project manager with proven record in pest, especially rabbit management. Ideally this is a contracted non Parks Victoria position.
3. Phase 1. Pre control success icons June 2022- April 2023.

Success icons

- Approval all methods July 2022
- Works Project manager agreed with stakeholders
- RPF Management units agreed
- Management units fencing costs agreed & secured
- Contractors for baiting selected
- Contractors Warren Modification selected
- All monitor camera established on key warrens (hotspots)
- Check 100% SITE fence, especially gateways are secured And fence 100% no breaches (i.e. rabbit proof)
- Outside SITE treatment program PINP, Council, private 95% reduction in rabbit numbers
- Key hotspot monitor warrens (burrows systems/sign-dung heaps) (10-15) selected
- Spotlight transect road all year trafficable, increased include eastern & middle/sw sections
- 100% burrows located; GPS; method of control assigned
- 100% above ground surface harbour located GPS; method of modification assigned to each burrow system
- RCD status of rabbit on site /off site adjoining quantified

Phase 2. Knockdown Jan-April 2023

Application broadscale baiting; warren destruction and intensive follow up to ensure rabbit breeding burrows are removed.

Success icons

- 100% site treated baits
- 95-98% rabbit population reduction (spotlight monitor transect)
- 100% Burrows GPSd modified (ripped) to no longer useable for successful breeding
- 75% above ground harbour modified to make unsuitable rabbit harbour
- All neighbouring areas (PINP; council; private; treated by baiting & burrows modified). 98% reduction in rabbit by activity monitors
- 5% non-target losses

Phase 3. Set up for eradication/long term reduction (0.5-1 rabbit) May 2023

This phase begins 3 months from warren modification or earlier if warren modification completed:

- Survey every GPSd burrow assess & record no. ineffective treated burrows/active
- Survey every GPSd above ground harbour Assess & record no. ineffective/active
- Survey every GPSd buck heap, assess & record activity
- Spotlight transects record data every 500m. (all species)
- Assess check fence, 100% rabbit proof
- Location of internal management fencing confirmed
- Internal rabbit proof fencing for rabbit management erected (2-3+ Management units TBC)

Success icons

- Spotlight 0-3 rabbits over entire transect
- No active burrows
- 1-3 dung heaps found with new dung
- Scratching 95% reduction
- No non target losses due rabbit treatments
- All data from monitor warrens/buck heaps/spotlighting/camera traps on warrens/buckheaps collected

- Assembled data (spotlight; warren; dung heap record) assessed and used to map rabbit hotspot sites
- Plan treatment all burrows to modify burrows to be unsuitable breeding with 5 days
- Construct and complete management units fencing. Or major problem sites only fenced
- Rabbit population held +/-98% pre works numbers
- Burrow reopenings treated, destroyed or modified
- Internal management fencing erected & rabbit proof
- Maintenance regime on internal management fencing confirmed & agreed

Phase 4. Option A. Eradication (May 23-Oct 23)

Assess all monitor warrens/buckheaps monthly across entire SITE area.

Management Unit 1

- Fence secured rabbit proof.
- Assess all warrens/buckheaps/spotlight transect weekly in 1st management unit.
- Assessment using trained dogs can occur during this phase as rabbits numbers are significantly reduced.
- Rabbits sighted on transect/within grids; record activity area/site on GPS. Search the activity sites, locate, and ascertain sources of activity. If burrows found: destroy, implode; rip; or no burrows found; free feed, spot bait; and no take bait after 21 days then consider discreet shooting. Above ground surface harbour remove weeds, move logs, make unsuitable for rabbits. Continue monitoring for 5 days to confirm no activity in the area.
- Trained detector dogs may be used to locate rabbits.
- Clear grass cover (slash/burn) if rabbit detection hampered.
- Monitor camera used on warren/buckheap hotspots to detect & initiate eradication actions.
- Continue works in first management unit until no rabbit sign found and confirmed.

Management Unit 1 Success Icons

- Fence secure, no breaches
- Burrows 100% inactive
- Dung heaps 100% no new dung

- Zero rabbits on spotlight transect.
- Completed 30 days
- Move to management unit 2

In other management units assess all monitor warrens/buckheaps monthly. Respond with assessment of activity and potential control actions if greater than 30% increase activity in other management units

Management Unit 2

- Assess all warrens/buckheaps/spotlight transect weekly in 2nd management unit.
- Rabbits sighted on transect/within grids; record activity area/site on GPS. Search the activity sites, locate, and ascertain sources of activity. If burrows found: destroy, implode; rip; or no burrows found; free feed, spot bait; and no take bait after 21 days then consider discreet shooting. Above ground surface harbour: remove weeds; move logs and make unsuitable for rabbits. Continue monitoring for 5 days to confirm no activity in the area.
- Trained detector dogs may be used to locate rabbits.
- Clear grass cover (slash/burn) if rabbit detection hampered.
- Monitor camera used on warren/buck heap hotspots to detect & initiate eradication actions.
- Continue works in 2nd Management unit until no rabbit sign found and confirmed.

Management Unit 2 success icons

- Fence secure, no breaches
- Burrows 100% inactive
- Dung heaps 100% no new dung
- Zero rabbits on spotlight transect
- In other management units assess all monitor warrens/buckheaps monthly
- 1st Management unit fence secure; no rabbits
- Move to 3rd management unit

Management Unit 3

- Fence secure, no breaches.
- Assess all warrens/buckheaps/spotlight transect weekly in 3rd management unit.

- Rabbits sighted on transect/within grids; record activity area/site on GPS. Search the activity sites, locate, and ascertain sources of activity. If burrows found: destroy, implode; rip; or no burrows found; free feed, spot bait; and no take bait after 21 days then consider discreet shooting. Above ground surface harbour: remove weeds; move logs and make unsuitable for rabbits. Continue monitoring for 5 days to confirm no activity in the area.
- Any burrows reopened; new dung on heaps; scratching. Then search, locate source of activity (burrows: destroy, implosion; rip; or no burrow free feed: spot bait; shoot;). Continue monitoring for 5 days to confirm no activity.
- Trained detector dogs may be used to locate rabbits.
- Clear grass cover (slash/burn) if rabbit detection hampered.
- Monitor camera used on warren/buckheap hotspots to detect & initiate eradication actions.
- 1st & 2nd Management unit fence secure, no breaches, or remedial action taken. No rabbits.
- Continue works in 3rd Management unit until no rabbit sign found and confirmed.

Phase 4 A. Eradication assessment of eradication effort

No rabbit activity in grids. All management units confirmed eradication (*note: this may take 12 -24 months for all monitor methods to confirm eradication*).

- Set up monitoring of monthly monitor hotspot warrens.
- Quarterly monitor of all monitor hotspot warrens/buck heaps/spotlight transects can occur 18-36 months following eradication. Fence monitoring of SITE perimeter follows established phase.
- In adjoining properties maintain relationship to assess effect of those programs on effective long-term reduction in rabbit activity and numbers.

Phase 4 B. Goal 0.1- 0.5 rabbit per klm / 0 burrow per ha

In this option subdividing the SITE with rabbit proof fences occurs with control actions occurring in each unit until the goal of 0.1- 0.5 rabbit per klm/0 burrow per ha. is reached in each individual management unit.

Assess all monitor warrens/buckheaps/spotlight transects monthly. Increase the control operations to target areas of rabbit activity if < 5% increase in rabbit activity is detected. Intensively search areas of detected activity to locate source of rabbits. If burrows found: destroy, implode; and/or If no burrows found; free feed, spot bait; and if no bait taken after 21 days then shoot. Continue monitoring for 5 days, and if confirmed no activity then cease.


Goal 0.1- 0.5 rabbit per klm / 0-burrow per ha.

Success Measures

- Spotlight transect 0.1-0.5 rabbit per kilometre transect.
- Burrows: 0 burrow per hectare per management unit.
- No active burrows in use by rabbits are tolerated.

Considerations with the rabbit management action plan implementation

1. Internal management fences will be affected by wallaby damage if current populations remain during rabbit management program phases 2-3.
2. Changes in landscape following reduction in rabbit grazing increase in pasture/native grass & weeds.
3. Brush tail possum (BTP) numbers are high due to change in feeding behaviour with no introduced predators. BTP feeding on the ground will consume grasses, increasing grazing pressure and increasing successful breeding. The population of BTP will increase the total grazing pressure on the site especially with change in available grass following reduction in rabbits.
4. Wallaby numbers will increase significantly. Likely wallaby numbers are being held by the dominating effects of rabbit, kangaroo and brush tail possums.
5. Rabbit 1080 baiting/Pindone can impact on the most probable non-targets, being eastern barred bandicoot (EBB), wallaby, kangaroo, and brush tail possums. Mediation of effects on non-targets can be minimised to be none or very few with targeted baiting using bait material favoured by rabbits. This approach may be contentious and will need full approval.
6. To bring high rabbit numbers to very low (95-98% reduction) methods apart from broadscale baiting/warren modification are very time consuming, expensive, prone to blow outs with slight reductions in effort and will likely not achieve a 95% reduction (i.e. Mt Rothwell). Rabbits have shown they can rapidly adapt to control measures that target individuals, (shooting/fumigation), have no effect on the species opportunity to breed successful, and give opportunity to the prey to learn to avoid the predator (e.g. shooting).
7. Warren modification using excavators (15-20t) is untested in the presence of a large population of bandicoots. The EBB may shelter, for an unknown time, in rabbit burrows. Rabbits are traditionally very aggressive and may not tolerate rabbits in burrows especially in breeding season. Continuous EBB occupation of burrows is untested, though expected to be low or not at all based on research and observations (Dufty *per comms*).
8. Test in the site the rabbit bait materials (oat/carrot) for non-target uptake to inform management actions.

- 
9. Test burrow/bore camera for ability to detect EBB consistently to inform management actions if in area of known EBB population. Preferably work outside of EBB area in the initial phases of the project.
 10. Monitoring of changes in vegetation must be budget for and carried out, pre, during and post works in the RPF area. An experienced botanist should be consulted.

Appendix 1 Enabling criteria for selecting site(s) to achieve Rabbit Free

- Best Practice can be applied (bait; burrow destruction; follow up, implosion, fumigation, woody weed removal) in one season.
- Resources (people/skilled machinery implosion/fumigation/baiting personnel/contractors) are available.
- Rabbit free can be completed in < 12 months.
- Entire site able to be RPF.
- Only authorised/controlled entry access gates (personal/vehicle) can be rabbit proofed.
- All burrows can be found, GPSd.
- Survey of rabbits pre, during & post control (RRAG; daytime/dusk observations; spotlight/ night vision/field cameras.
- RPF complete & secure prior to control works.
- Rabbit trail baiting possible; if not sufficient cages can be deployed for scatter/broadcast baiting.
- Weeds obscuring burrows can be removed/treated.
- Low growing plants (prostrate/ground covers) providing shelter for rabbits can be removed/slashed or lifted from the ground 300-500mm.
- Each burrow can be modified (destroyed) to stop rabbit access & use for shelter and breeding.
- Follow up works (shooting trapping/drives) to find & remove small number survivors is possible at site.

Appendix 2 Case Study:- Community based rabbit control Rabbit Free Phillip Island

'Rabbits are the single most threatening process that we have the power to manage' says Gidja Walker in an assessment of threats to coastal vegetation on the Surf Beach to Sunderland Bay coastal reserve of Phillip Island (Morrowl), Victoria.

Phillip Island is a popular tourist and holiday destination, with many absentee landowners settling in over weekends and holiday periods. It is famous for motorcycle sports (international MotoGP championship), and for the little penguins that star in an evening 'parade'. Foxes have been removed to protect the abundant birdlife, such as little penguins and migratory short tailed shearwaters along with introduced threatened species such as bandicoots. Feral cats are now being targeted for control.

Rabbits were introduced to the island in the late 1850's. They have multiplied since then and although it is difficult to identify warrens and to estimate the number of rabbits due to the nature of the area, they are almost in plague proportions. Many rabbits (probably most) now live under houses and sheds near the coast from which they venture out to graze – free from fox predation. They cause several problems to natural areas, as well as to gardens, and are threatening to undermine buildings.

- The rabbits are voracious in their browsing, targeting species such as Trigger Plants (*Stylidium* sp.) and Running Postman (*Kennedia prostrata*), virtually to the point of elimination.
- Rabbits nutrify soil through their droppings and urine which encourages various weeds, particularly *Medicago* spp. and annual grasses such as *Vulpia* spp. - which is known to affect many indigenous species including native grasses and orchids.
- Rabbit digging also causes increased erosion, creating an additional pressure on the relatively erodible coast.

If nothing is done to control rabbits some native plant species are likely to become locally extinct, weed control, restoration and revegetation efforts will be ineffective, and feral cats will be sustained by preying on rabbits



Hot pink flowering Grass Trigger Plants, Surf Beach Sunderland Bay coastal reserve, Phillip Island, 2009. Image: Gidja Walker.

Appendix 3 Case Studies Ineffective Secondary Single Control Approaches

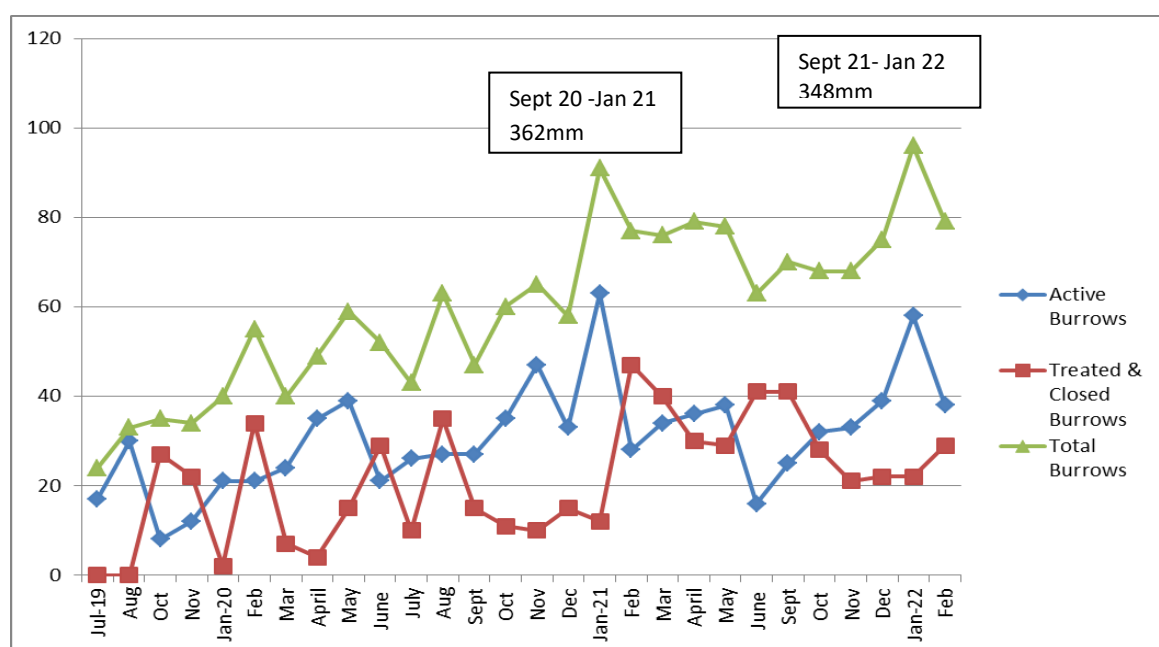
This involves the use of control approaches that take no or little account of best practice, being used singular or at the wrong season time. These examples have the common denominator of ineffective monitoring and lack independent analysis of monitoring data on the target pests, off targets, and the species being protected or enhanced.

Single control approach: - fumigation

The use of any primary control measure on its own will be ineffective in lowering rabbit numbers, keeping them low, managing rabbit impacts and is a waste of money and time (Williams et al 1995; Williams & Moore 1995).

Example: - +/-3ha rabbit proof fenced site where intense multiple applications of diffusion fumigation (Aluminium phosphide) with uncoordinated occasional shooting & ferreting.

Graph 1:- Creek 2019-2022 Active, Closed/treated burrows & Total burrows



Rabbits remain entrenched in the reserve (see Graph 1 above), building on numbers of active burrows since July 2019 (17) to reach a La Nina and poor control influenced high of 63 active entrances (Jan 2021).

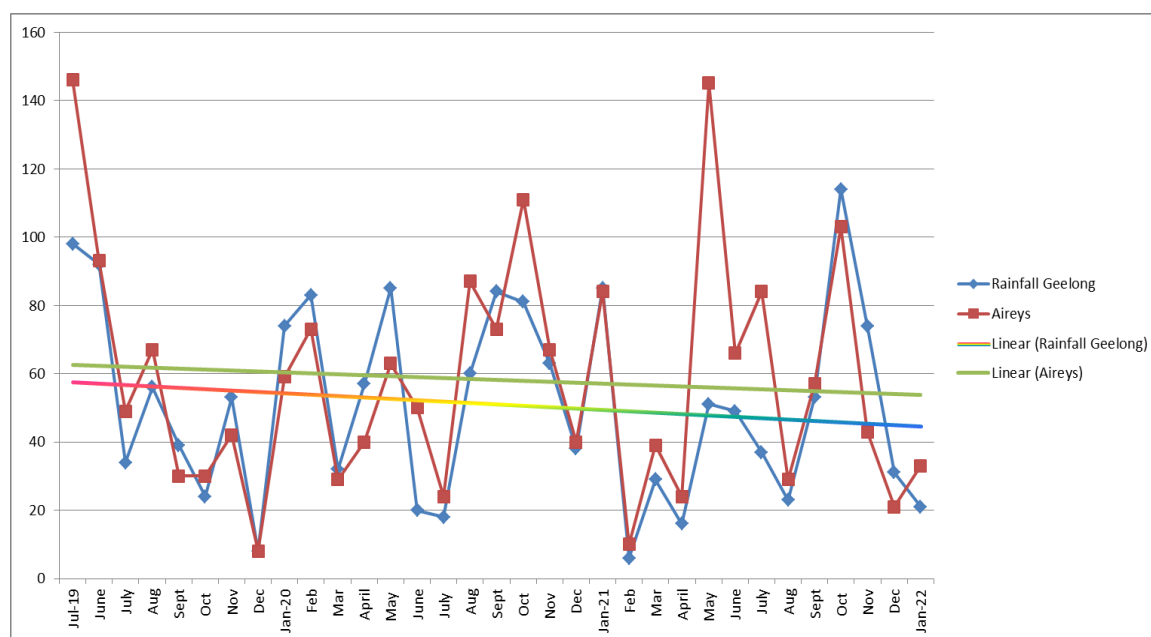
In early Jan 2022 prior to treatment (fumigation (SCSC), plus some ferreting by others) there were 58 active burrows of the 74 open burrows available for use. Rabbits have continually out breed the control efforts 2019- 2022.

The favourable, for rabbit breeding, weather systems (summers 2021-2022) and inefficient control that was applied has helped sustain rabbit numbers and ongoing damage (e.g. Burrows: - Jan 2021, Open 79 / Active 63; Jan 2022, 74 Open /58 Active).

Considering the period Jan 2021 to Feb 2022 as example of the site, this demonstrates the fumigation treatment does not reduce ongoing successful rabbit breeding. The treatment carried out from 2019 2022 was both ineffective and inefficient (Bloomfield 2022). Rainfall

has a greater effect on the number of active burrows and the lack of rainfall has more impact on active rabbit burrows than the ineffective fumigation only control approach .Rabbit response measured in Graph 1 as active burrows is seen +/-50 days after rain fall (30 days gestation followed by 21 days later first emergence of the young rabbits from the active burrow). Prolonged dry periods reduce available protein in grasses reducing breeding across the rabbit population until grass completely is dry (very low protein) and breeding ceases.

Graph 2 Rainfall nearest BOM stations: Geelong Racecourse & Aireys Lighthouse



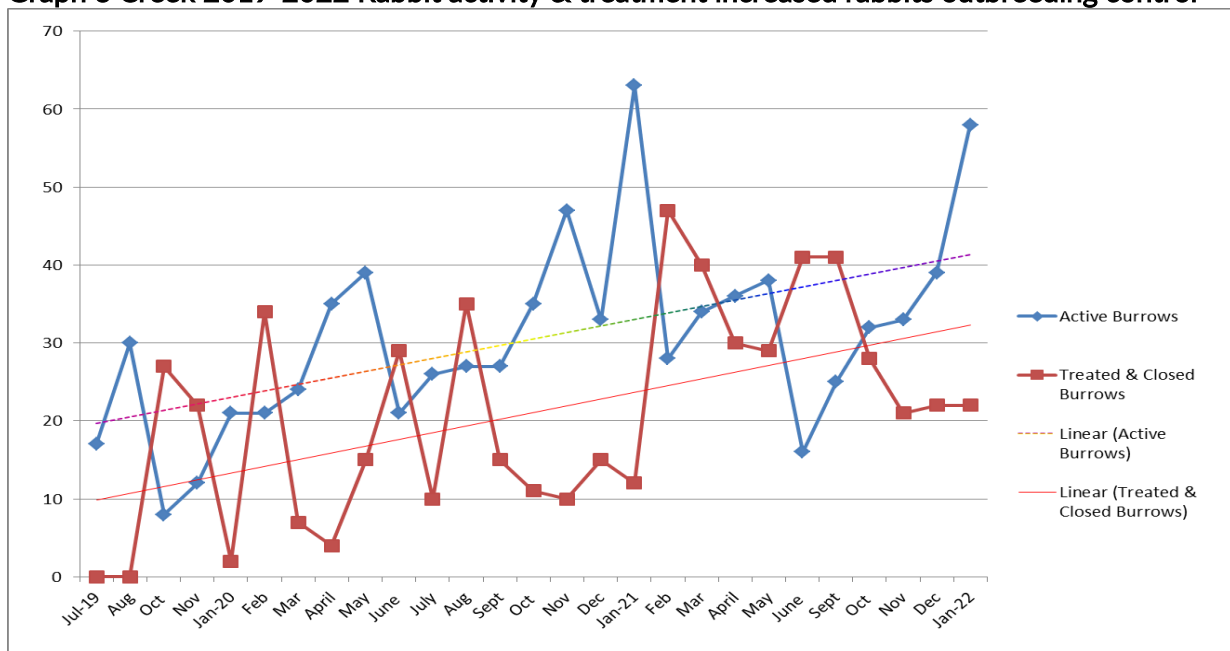
Some ineffective treatment approaches common in rabbit fumigation

Ineffective treatment techniques;

1. burrows being missed, though next to active burrows next (i.e. +/-1m) , trained tracking dogs not used,
2. discreet burrows (i.e. missed in vegetation, behind/under spiny weed, under roots, creek banks; next to fallen timber) being missed,
3. trained searching dogs not being used (Contractor pers comms) +/- 70% rabbits above ground without dogs (Moseby et al 2005),
4. all burrow openings are not being detecting as a smoking device for detecting burrow openings (contractor pers comms) is not being used thus fumigant gas will be lost and rabbit survive fumigation or can escape ,
5. Lack of quality control immediately following the single treatment day for many weeks or until the next treatment cycle when some not all burrows are treated
6. diffusion fumigation may not kill all rabbits in burrows due intraspecific variability of rabbits and common failing in techniques (Oliver & Blackshaw 1979),
7. diffusion fumigation is not a best practice technique used on its own (Williams & Moore 1995 ; Williams et al 1995).

Results from field observations and analysis of data collected over a 21 month period show, some rabbits are surviving on site, and then successfully breeding while rabbit impacts are ongoing. Rabbits are outbreeding the fumigation only approach being used, as shown in Graph 3 below.

Graph 3 Creek 2019-2022 Rabbit activity & treatment increased rabbits outbreeding control



On this site, 3.5ha site there is no natural regeneration of native shrubs, trees or grasses evident (T Bloomfield pers obs 2022). Ecosystems cannot recover in the presence of rabbits (Williams et al 1995) which the use of this single fumigation approach demonstrates.

Repeated diffusion fumigation and rabbit proof fencing; to stop immigration of rabbits into a treatment site (+/-3 ha rabbit proof fence enclosure containing ephemeral creek grassed (mowed) area and mature redgums), does not eradicate rabbits in a rabbit proof fenced enclosure (Bloomfield in press).

Single control approach: - shooting

Shooting is often substituted for the more effective primary control measures. The impact of shooting on rabbit populations is minimal and perhaps detrimental by creating an appearance that something is being achieved.

If rabbit numbers remain high and damage is continuing, following baiting and ripping it usually means that the baiting or ripping practice need to be reviewed and improvements put into action. In addition, if hot spots remain it is much more efficient to re-bait these areas and look for missed non-ripped warrens and destroy those than to shoot.

Furthermore, rabbits will rapidly develop avoidance behaviour of vehicles, dogs, spotlights, traps and guns with the results that rabbit may appear less in number, when they simply are avoiding detection. Also, as rabbit numbers decline due to shooting, ferreting or trapping, the catch per unit declines, effort to get a rabbit increases and the hunter moves to more productive areas, usually leaving behind just enough rabbits to repopulate the area. (e.g. research shows two rabbits over 18 months will grow to 184 (Williams et al 1995)).

Example site: At a long term Victorian rabbit research monitor site (RHDV research site), shooting was along with annual once off baiting the approaches being used. The monitoring

methods of spotlight transect monitoring (counting rabbits per linear kilometre) and warren monitoring, (i.e. counting active entrances) were the used at the research site. On this site part of a larger experiment best practice control was not used to see the effect of one off baiting, and as it occurred shooting on rabbit populations.

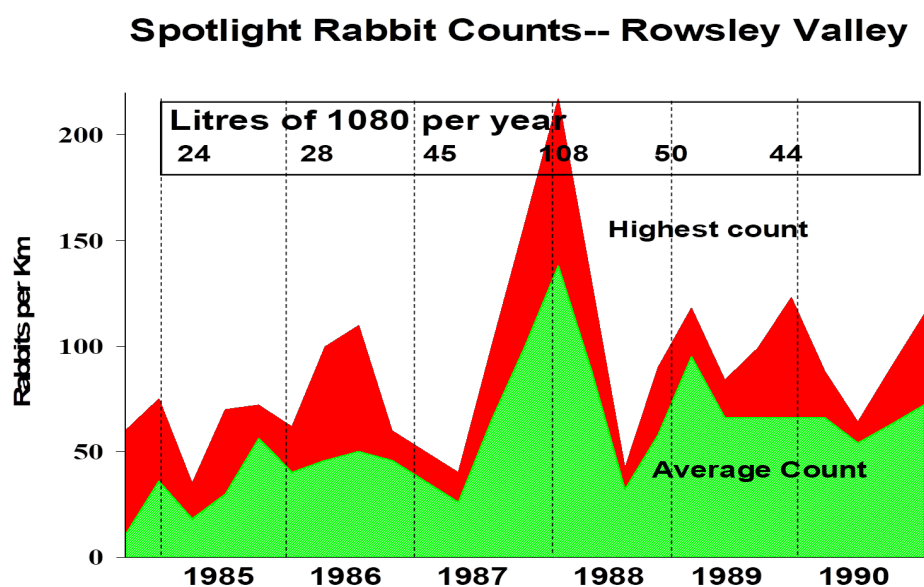
Shooters were using spotlight shooting, plus dog hunting and other daylight shooting approaches. The spotlight transect showed a 95% decline in rabbits sighted, however warren monitoring of active burrows showed that active burrows had increased by 5%. Enough rabbits where avoiding shooters, to have an increase in burrow activity, (i.e. breeding) while appearing to have been reduced (Forsyth et al 2016).

Single control approach:-Carrot /Oat rabbit baiting (1080 /Pindone)

The use of the baiting only approach was popularised and promoted in Victoria by the Vermin and Noxious Weeds Branch of the Lands Department from 1960 -1996 (Bloomfield per comms). Remember the use of any primary control measure on their own will be ineffective in lowering rabbit numbers, then keeping them low and be an inefficient use of resources (Williams et al 1995; Williams & Moore 1995).

The type of toxin, (1080 /Pindone) used in the baiting programs (1960s-) is unimportant, it is the approach of using only the application of a toxic bait to treat a rabbit population that causes the failure of this approach (Williams et al 1995; Williams & Moore 1995; McPhee pers comms).

Baiting has the effect of reducing numbers of rabbits but because burrows are intact, survivors quickly replace the baited rabbits. This is shown below (Fig 2) where a data from over 7 years demonstrates rabbit numbers per spotlight per kilometre did not drop below 30 per kilometre following annual baiting programs, as shown by litres of 1080 used per year.



Graph 4. Baiting only 1984-1991 rabbit population changes & quantity 1080 used on carrot bait.

Single control approach: - Re-releasing virus

There is an onerous belief, that a virus will manage all rabbit impacts, and the re-releasing of the virus is the only control approach required. The evidence from research on the current viruses circulating in Victoria and Australia contradicts this view.

Research shows that following the establishment of RHDV2, (2014-ongoing) rabbit abundance was reduced by an average of 60%, with those impacts most pronounced in southern and Western Australia. In contrast, the deliberate release of RHDV-K5 had little impact on rabbit populations 0-to a very rare 32% of population impacted (Ramsey et al 2019). Releases of K5 have created immunity in rabbits where the virus was released during rabbit breeding periods (i.e. July –Dec; La Nina July-April). Young rabbits can develop immunity after exposure to K5 protecting them for life. . The K5 virus has been overrun by RHDV2 which is now the dominant strain circulating in Victoria. Outbreaks of RHDV2 occur when climatic conditions and host availability (susceptible rabbits) are conducive for an outbreak, often late summer. Re-releases of any virus, especially K5 will see little or no reduction of rabbits in the medium to long term.

The virus that has the greatest effect on rabbits, RHDV2, is endemic, with outbreaks occurring in spring (i.e spring like weather conditions) and requires no human intervention. Releases of K5 are a waste of time, money and effort.

Myxomatosis released in late 1950, killed 99% of rabbits infected. The virus has attenuated (less virulent strains) and the rabbit, virus survivors of 1950s, have developed resistance. Myxomatosis is endemic, outbreaks can occur when weather conditions favour the disease spreading vectors, mosquitos and, host rabbits, are available. Releases of the endemic myxomatosis ceased in the late 1980s. Myxo may kill between 60-5% of rabbits in natural outbreaks. The virus, Myxomatosis and RHDV2 are very important following implementation of best practice control, especially burrow destruction, as the viruses will help suppress the rates of rabbit survival and breeding (Ramsey pers comms, Bloomfield per obs.). Releases of the virus, RHDV2, K5 or Myxomatosis are likely counterproductive

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Appendix 4 Constraints and Adaptions to Best Practice Management

Targeted poison baiting

The instructions for laying the various forms of commercially available Pindone or Sodium Monofluoroacetate (1080) bait are provided on the label of the APVMA registered products.

Issue :- Off/ Non Target consumption of baits.

Constraint:- Perception of loss of non-target species & /or loss of some species.

Action: Observation of bait uptake to determine target and non-target uptake; across the rabbit treatment zone. Research impacts of Pindone versus 1080

Adaption:- (Test & Trail on site)

- Use of dyed (Green or Blue) free feed baits to reduce non target interest in feeding.
- Use of dyed baits for toxic bait. Laying bait only in most active rabbit feeding area.
- Choosing least palatable bait source (Oat vs Carrot) for non-target.
- Use of multiple in number of long RPF enclosed bait stations that can mimics the length of a bait trail.
- Extensive research shows that 1080 is invariably a safer product to use in the presence of most native animals. Pindone should not be used in the presence native animals.

Potential impact on efficiency & efficacious of best practice

- The effectiveness of poisoning using bait stations is relatively poor especially during the breeding season.
- Overall proportional reduction in rabbit numbers achieved with Pindone bait stations is 48% (range 0–80%), while use of an open trail with Pindone (60–90+ %).
- Pindone bait stations program takes 30–60 days to achieve +/-48% reduction when +/-95% is required to be considered best practice.
- The use of bait stations is a stopgap measure, often a seen as pretence that effective management is being achieved when the impact of the bait station approach on rabbit populations can be minimal.
- Off/non target loss are unlikely to be at a population level and will quickly rebound as rabbits are effectively managed providing more available herbaceous food sources for native and agricultural species.

Burrow Modification (destroying burrows/warrens)

Co-ordinated rabbit control programmes based around burrow/warren modification that stops these being used by rabbits for breeding will consistently result in sustained (+20 years) reductions of rabbit numbers and impacts (McPhee and Butler 2010).

Issue: Cultural heritage possible harm; Erosion; Damage to native vegetation

Constraints: perception of loss of cultural heritage; soils; vegetation

Actions: Research rabbit burrow modification programs; Trial burrow destruction with assistance of acknowledged experts in the field, especially local experienced rabbit warren modification operators. Seek advice on interpretation of Act & regulations; Set up Land Management Agreement with local RAP

Adaption:- Test & Trail on site

Cultural heritage considerations

Consider the provision in the Act & Regulations that allow works, without expensive time rich Cultural Heritage Management Plan (CHMP). See Flow Charts below.

The Flow Chart (Page 35 & 36) seeks to provide land managers with a guide to where best practice rabbit control works may occur in relation to preserving and enhancing Aboriginal cultural heritage in Victoria. The aim is not to cause harm to Aboriginal cultural heritage, the aim is manage to the impact of rabbits on native vegetation. We strongly contend, based on research, that where rabbits are not managed according to best practice principles, land can never be representative of country.

The Act (Aboriginal Heritage Act 2006) & Regulations (Aboriginal Heritage Regulations 2018 S.R. No. 59/2018 provides for the protection of Aboriginal cultural heritage in Victoria.

The Act (Aboriginal Heritage) & Regulations (Aboriginal Heritage Regulations 2018 S.R. No. 59/2018) may cause action(s) to be taken and may allow for works to occur. A purpose of the Regulations is to 'prescribe the circumstances in which a cultural heritage management plan is required for an activity'. The trigger is 'all or part of the activity area for the activity is an area of cultural heritage sensitivity; and (b) all or part of the activity is a high impact activity'.

Cultural Heritage Management Plan

The Cultural Heritage Management Plan (CHMP) can guide works to manage, reduce or stop harm occurring to cultural heritage. A permit can also be issued to allow work or not allow described works. Similarly a Land Management Agreement may be struck between parties (e.g. Registered Aboriginal/ First Nations Party/Peoples) to prescribe activities and or works.

Significant Ground Disturbance

The requirement for the CHMP is that the area of land has Cultural Heritage Significance on that particular land description and or site (e.g. Waterway; Lunette; Dune; Parks; Minor/Major Sports & Recreational Facility; Scar Tree) and the proposed works will cause Significant Ground Disturbance.(i.e cause or potentially cause harm to Cultural Heritage). Significant Ground Disturbance is defined in the Regulations as being disturbance (a) the topsoil or surface rock layer of the ground; or (b)a waterway by machinery in the course of grading, excavating, digging, dredging or deep ripping, but does not include ploughing other than deep ripping. Where Significant Ground Disturbance can be verified as occurring prior to your proposed works in that area there is no cultural heritage significance in that area. A CHMP process is not triggered.

High Impact activities

High Impact activities are where the proposed construction or the carrying out of the works will result in significant ground disturbance or the works are to occur on land being used as described in the Aboriginal Heritage Regulations 2018. These land uses include aquaculture; camping and caravan park; cemetery; an industry; intensive animal husbandry; sports and recreation facility and other uses listed in the Regulation.

High Impact activities causing Significant Ground Disturbance or on the listed land uses trigger a CHMP except where whole of the activity area has been subject to significant ground disturbance, then that activity is not a high impact activity. Additional for those land uses, as listed, for which the land was being lawfully used immediately before 28 May 2007 those uses can continue and are not classified as high impact.

Rabbit control; mapping warrens; spotlighting; ground surveys; baiting; warren modification (ripping with any size tine, with any machinery 1.5 t to 30t (or more); implosion; fumigation are not HIGH impact activities where significant disturbance has occurred or the works form part of ongoing works (i.e. Same as works Pre 27 May 2007) with regard to the land uses described in the Aboriginal Heritage Regulations 2018.

Ground Survey

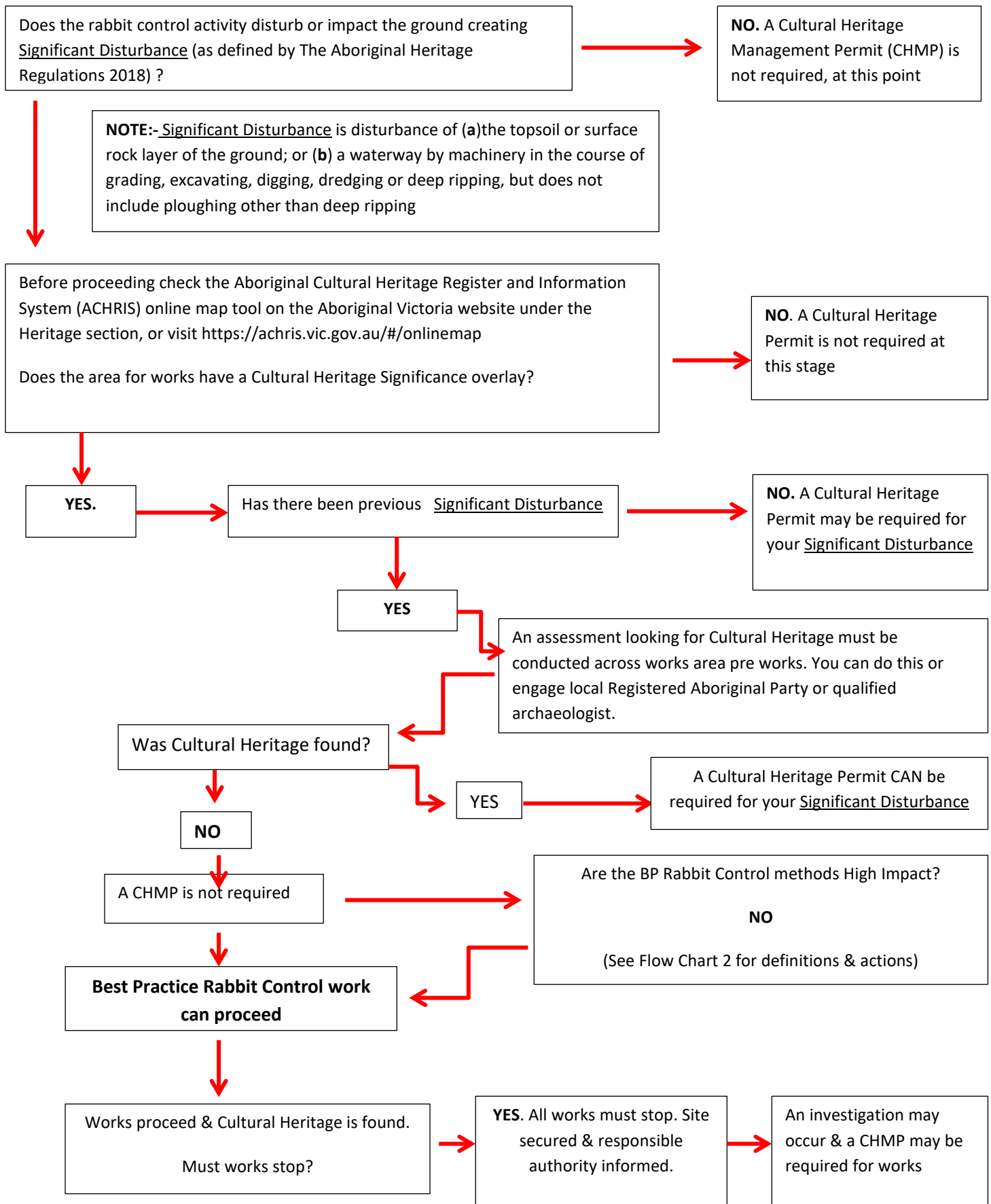
A survey of the area where works are to occur is required. A survey looking for cultural heritage can be carried out by any individual. Where no evidence of cultural heritage, which may include artefacts, is found, and the site has been subject to significant disturbance and the activities and land class are not listed high impacts activities then works such as best practice rabbit control can proceed.

If during the course of those works, artefacts, for example stone scatter, are located then works must stop at the site, the site secured and First Nations (formerly Aboriginal Victoria) informed immediately.

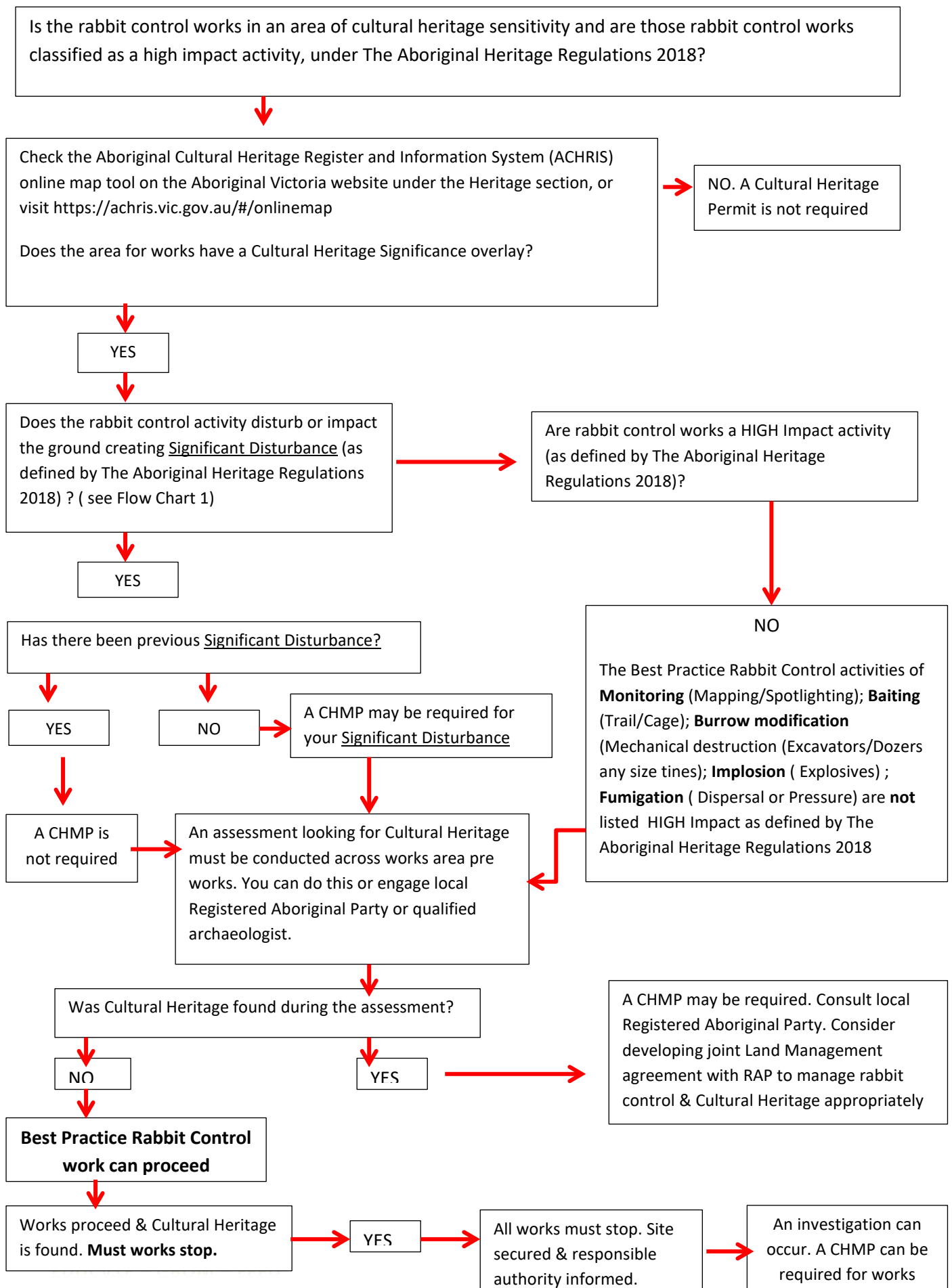
Actions:- Best Practice Rabbit control can occur where specific considerations are met.

Adaptions: Create working relationship with local RAP to jointly manage land to become representative of Country. Using provisions of the Act & Regulations, set up a Land Management Agreement process to guide best practice rabbit management and land rehabilitation on both public and private land managers

Flow Chart 1:- Significant Disturbance & Cultural Heritage Significance



Flow Chart 2 Significant Disturbance Cultural Heritage Significance & High Impact activity





Appendix 5 List of Relevant Legalisation

Aboriginal Heritage Act 2006 & Aboriginal Heritage Regulations 2018

Environment Protection and Biodiversity Conservation Act 1999

Flora and Fauna Guarantee Act 1988

Bass Coast Shire Council Local law Number 1

Catchment & Land Protection Act 1994

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