BHP Mitsubishi Alliance

BMA-PRO-0088

BMA PROCEDURE

Weed and Feral Animal Management

Status: Approved

Version: 1.2 (07 January 2022)

Business Owner: BMA BNE HSE Manager Environmental A&I

Document ID # 013273193

Table of Contents

1 Introduction

1 This procedure describes the application of the minimum acceptable requirements for the management of weeds and feral animals at BMA Operations.

2 This procedure supports the site Land and Biodiversity Management Plans to manage the risks that weeds and feral animals pose to biodiversity, by:

- **a** Preventing the introduction of new weeds onto BMA Operations through the early detection of, and rapid response to new weeds;
- **b** Identifying and controlling the spread of weeds and feral animal populations on our Operations;
- **c** Raising awareness and understanding of the risks associated with weeds and feral animals; and
- **d** Ensuring compliance with regulatory and corporate requirements.

3 This procedure applies to all BMA weed and feral animal management activities, with the exception of offset areas, which shall be managed as per the approved Offset Area Management Plan, and BMA exploration activities which are outlined in ***GEO-PRO-0001 Weed Control and Management Procedure***.

1.1 Roles and Responsibilities

4 ***Table 1*** identifies the organisational roles and their obligations relevant to weed and feral animal management and control.

Role	*Obligations*
General Manager and Site Leadership Team	• Support weed and feral animal control and management initiatives; and • Participate in Field Leadership activities related to weed and feral animal management.
Site Health Safety and Environment (HSE)	• Maintain reports and database of weed and feral animal data; • Coordinate, review and assess the effectiveness of weed and feral animal control programs; • Coordinate Service Providers / Contractors undertaking control program activities; • Maintain a Land and Biodiversity Management Plan; • Coordinate Field Leadership activities to confirm compliance with this procedure; and • Develop and assist with the distribution of training material to personnel.
All Employees and Contractors	• Report weed and feral animals observed on site, where required; and • Ensure that vehicle, machinery and equipment inspection and wash down is carried out in accordance to this procedure and implement the checklist for inspecting and cleaning vehicles, machinery and equipment (Refer ***Appendix 3 – Vehicle and Equipment Cleaning and Inspection Checklist***).

Table 1: Weed and Feral Animal Management Roles and Responsibilities

2 Legislation and Commitments

1 BMA have legal obligations to manage weeds and feral animals on the land we operate on in accordance with:

- **a** The Qld *Environmental Protection Act 1994* (EP Act);
- **b** *Site* Environmental Authority (EA) and Land and Biodiversity Management Plan;
- **c** The Qld *Biosecurity Act 2014* (Biosecurity Act);
- **d** *Agricultural Chemicals Distribution Control Regulation 2021* (ACDC Regs).
- **e** *Medicines and Poisons Act 2019*

2 The Biosecurity Act protects Queensland's economy, biodiversity and people's lifestyles from the threats posed by invasive pests and diseases. Under Section 23 of the Biosecurity Act, individuals and organisations are responsible for taking all reasonable and practical steps to minimise the risks associated with invasive plants under their control. This is known as the general biosecurity obligation (GBO). The Biosecurity Act definitions and obligations applicable to BMA operations are listed in ***Appendix 1 – Qld Biosecurity Act Definitions & Requirements***

2.1 Relevant weed and feral animal species

3 Weed and feral animal profiles relevant to BMA operations are included in ***Appendix 2 – Weed and Feral Animal Profiles***

3 Risk Management

1 The site's relevant Environmental Risk Register shall document the key risks and control measures associated with weed and feral animal management.

3.1 Weed Risks and Identification

2 Risks associated with weed establishment and infestations include:

- **a** Non-compliance with legal obligations to manage weeds;
- **b** Potential to alter the natural diversity and balance of ecological communities;
- **c** Contribution to biodiversity decline through the displacement of native species via competition for habitat, nutrients and sunlight;
- **d** Vehicles have the potential to introduce and/or spread weed species and plant pathogens such as root-rot fungus in disturbed soil;
- **e** The presence of weeds may affect rehabilitation and limit the achievement of acceptable post-mining land use; and
- **f** Greater bushfire intensity through increased fuel loads.

3 A weed monitoring and tracking program should be used to quantify the extent of the weed risk at a site and identify the control programs required. The monitoring program shall inform the regular review of the site Environmental Risk Register. Refer to ***Section 3.5.1*** for specific monitoring requirements.

3.2 Weed Management Controls

4 Weed management controls will depend on the weed species and location. BMA have more scope to carry out weed management and control in on-lease areas or in areas owned by BMA. For off-lease areas, or areas owned by third parties (with access agreements for BMA), weed management needs to be tailored to the activity taking place, the nature of the site, and the willingness of the landowner to engage in such management or control.

3.2.1 Disturbance and Topsoil Management

5 Most weed species thrive on disturbed ground where there is a lack of competition from native species. The ***BMA PRO 0056 Permit to Disturb*** is a key control that helps to reduce the risk of weed establishment, spread and invasion in disturbed areas. Any disturbance of land (or a change in land use) will trigger the requirement to obtain and operate under an approved Permit to Disturb.

6 Movement of sand, gravel, rock, soil and organic matter must be controlled to ensure that it does not result in contamination by weed reproductive material, hence contaminating 'clean' material. Where possible, all reasonable efforts should be made to limit the application of topsoil containing weed seeds.

7 All rehabilitation materials (e.g. seed and hay) brought to site should be 'weed free' and recorded in the site's document management system.

3.2.2 Restriction of Vehicle and Equipment Movement

8 The risks associated with the spread of weeds from vehicle and equipment movements shall be assessed and, where considered appropriate, the following restrictions shall be implemented:

- **a** No vehicles are to drive over, or within close proximity to, topsoil stockpiles unless conducting authorised topsoil movement;
- **b** Vehicles are to remain on existing tracks and avoid driving over weed populations; and
- **c** Vehicle access to neighbouring properties will only be undertaken with the permission of property owners, in clean weed free vehicles, and in accordance with the Biosecurity Act.

3.2.3 Vehicle Hygiene Protocols

Note

Vehicle and equipment hygiene protocols specific to BMA exploration activities are outlined in ***GEO-PRO-0001 Weed Control and Management Procedure****.*

9 Weed hygiene measures shall be implemented to prevent the spread of weeds and reduce the risk of further establishment:

- **a** All vehicles, machinery and equipment accessing the mining lease or landowners' properties should be cleaned and prior to entering site.
- **b** ***Appendix 3 – Vehicle and Equipment Cleaning and Inspection Checklist has*** been developed for use at BMA sites based on the Department of Agriculture and Fisheries (DAF) ***Vehicle and Machinery Cleandown Procedure*** (DAF Procedure).
  - **i** Section 4 'Specific Cleaning Checklists' of the DAF Procedures provide more specific guidance on cleaning machinery and equipment including excavators, tractors and loaders.
- **c** All vehicles, machinery and equipment shall be cleaned at designated wash down bays / pads. Light and heavy vehicle wash down bays are available at all BMA operations throughout the Bowen Basin. Council wash down bays are located at Rockhampton, Springsure, Rolleston, Duaringa, Mackay, Nebo, Moranbah, Clermont, and Emerald. These facilities are managed by the Regional Councils;
- **d** When moving around onsite, vehicles, machinery and equipment should be re-inspected when:
  - **i** Entering undisturbed areas of vegetation;
  - **ii** Entering vegetated areas within proximity to rehabilitated areas; and
  - **iii** Leaving areas with known established weed populations.

10 Wash downs are not required if all the following criteria are met:

a The vehicle or piece of equipment is working on a single tenement / project area;

b The vehicle or piece of equipment does not work, or transit through, a known area of weed infestation; and

c The vehicle or piece of equipment has previously been cleaned and will only transit to and from town on a sealed (bitumen) road.

3.2.4 Weed Treatment

11 Once weed populations have been identified, weed treatment options can be implemented to control (with the intent to eliminate) known weed populations. Selecting the appropriate method is important to achieve good results and optimise use of time and money. It is important to remember that ongoing control work and maintenance is likely to be required for any of these methods to successfully control an infestation. A selection of weed treatment methods are listed in ***Table 2***

Weed Treatment Methods	
Manual/hand removal	• For small scale infestations. • The entire weed, including its roots, are removed from the soil by hand pulling. Hand tools such as broad knives and trowels can be used to remove underground parts of weeds that may reshoot.
Mechanical	• For large accessible sites, to control competitive weeds between trees. • Chainsaws, brush cutters, slashers, mowers, ploughing etc. Equipment must undergo weed hygiene practices.
Chemical	• Generally the most cost effective method. It is important to follow the safety precautions and use the most appropriate herbicide for the weed to be controlled, noting that there are broad spectrum and selective herbicides. • Methods include: • Foliar spraying (spraying over the foliage until every leaf is wetted); • Basal barking (spraying the full circumference of the trunk or stem of the weed); • Stem injection or iut & paint (cut stem & apply herbicide to stem); • Drill & fill (drill hole around trunk & fill with herbicide) • Cut stump (cutting off the invasive plant completely at its base using a chainsaw, axe, brush cutter or machete, then spraying the exposed surface of the cut stump • Wick applicator (a wick or rope is soaked in herbicide from a reservoir).
Biological	• Biosecurity Queensland undertakes research into biological weed control and their website contains information on research projects about specific weed species.
Other	• Crash grazing (high intensity grazing for short time periods).

Table 2: Weed Treatment Methods

12 The frequency of weed treatment programs shall be determined by site HSE taking into account the classification of the weed species, location/extent of populations and potential impact on non-infested areas.

13 For detailed information on specific weed treatment chemical controls and herbicide application, refer to the DAF invasive weed species fact sheets for registered chemical controls and herbicide application rates.

14 Any chemicals to be used on site for the purposes of weed control shall be reviewed based on the Safety Data Sheet (SDS) and chemical label to ensure they are appropriate for the target species. In conjunction with this, all safety and environmental requirements will be addressed based on the SDS. All chemicals used shall be approved in ChemAlert.

a Employees or contractors undertaking chemical weed treatment shall be appropriately trained and licenced.

b BMA mines operate within Hazardous Area 3 declared under the ACDC Regs. Within this area, distribution of herbicides with an ester formulation of 2,4 D must not be carried out unless:

i the person carrying out the distribution holds a distribution permit that allows the person to carry out the distribution; or

ii the distribution is by an authorised technique as defined under the ACDC Regs.

15 Any weed treatment that is in the vicinity of neighbouring landholders, especially organic farmers, shall be communicated to those landholders at least two weeks prior to weed treatment.

3.3 Feral Animal Risks and Identification

16 Risks and impacts of feral animals include:

a Non-compliance with legal obligations to manage feral animals;

b Feral Cats – have a serious impact through predation on native populations such as small mammals, birds, reptiles and fish. Predation by feral cats is listed as a key threatening process under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act);

c Feral Pigs – predation on small mammals, birds, reptiles and amphibians. They also destroy habitat and erode and degrade waterways. Predation, habitat degradation, competition and disease transmission by feral pigs was listed as a key threatening process under the EPBC Act in 2002;

d Feral Dogs - predation on small remnant populations of native species;

e Foxes - predation on small marsupial species and ground nesting birds;

f Rabbits – cause impact to endangered and native vegetation and compete for available habitat with other small mammals; and

g Cane Toads - impact native species and, in particular, invertebrate communities, through predation and competition. The biological effects, including lethal toxic ingestion, caused by cane toads was listed as a key threatening process the EPBC Act in 2005.

17 A feral animal monitoring and tracking program should be used to quantify the extent of the feral animal risk at a site and identify the control programs required. The monitoring program shall inform the regular review of the site Environmental Risk Register. Refer to ***Section 3.5.2*** for specific monitoring requirements.

3.4 Feral Animal Management Controls

18 A feral animal control program shall be implemented when monitoring confirms:

a A trend of population increase (i.e. increase in the number of sightings);

b There is evidence that feral animals are impacting on threatened species (i.e. through competition for food or shelter);

c Feral animals are causing nuisance to operations or appear to be diseased; or

d Neighbouring landholders raise valid concerns or a formal complaint in regards to feral animals.

19 A feral animal control program should be designed and implemented by an appropriately qualified person.

3.4.1 Trapping

20 Feral animals can be controlled using traps. When implementing a trapping program, the following process shall be followed:

a Traps shall be placed in areas least likely to interfere with non-targeted species (i.e. native animals);

b Traps shall be positioned so there is shade for animals. Traps must have water available for trapped animals;

c Captured animals shall be handled and managed with techniques that involve the least amount of stress possible;

d Traps shall be inspected early each morning (ideally before first light);

e Animals shall to be euthanized using methods listed in ***Section 3*** of the BMA ***Coal Wildlife Interactions and Handling Procedure***.

3.4.2 Baiting

21 Feral dogs and feral pigs can be controlled using 1080 (sodium fluoroacetate) poisoned baits. When conducting a baiting program, neighbouring landowners shall be informed and consulted at least one month prior to bait setting.

22 Refer to ***Appendix 4 – Baiting Program Requirements*** for detailed baiting program requirements.

3.5 Monitoring and Review

3.5.1 Weed Monitoring

23 HSE shall review records of weed sightings and/or undertake surveys to confirm the need to implement weed control programs. Surveys should also be used post control implementation to verify the effectiveness of the control program.

24 Inspections of disturbed areas (e.g. tracks, roads, cleared areas, exploration pads) and disturbance activities shall be undertaken by HSE. The information recorded should include (but not be limited to):

d Name and class of weed;

e Location of weed (GPS coordinates);

f Cover and density of the weed;

g Proximity to sensitive receptors; and

h Recommended control method.

25 A Weed Inspection and Treatment Form Template is provided in ***Appendix 5 – Weed Inspection Form*** Template**.**

26 HSE shall ensure any new outbreaks of weeds are captured in the relevant mapping system (i.e. GIS) and undertake a comparison with the baseline or previous survey data.

3.5.2 Feral Animal Monitoring

27 HSE shall review records of feral animal sightings and/or undertake monitoring to confirm the need to implement feral animal control programs. Furthermore, monitoring may be required post control implementation to verify the effectiveness of the control program.

28 The following should be considered when undertaking feral animal monitoring:

a Location of recently sighted feral animals or signs of feral animals (e.g. diggings, footprints, faeces, plant damage);

b Water or food sources (i.e. pigs are often found near dams; cats are often found near mobile crib huts); and

c When the target species is most active (i.e. mornings/ evenings when the temperature is cooler).

4 Education and Awareness

1 HSE shall promote education and awareness on the impacts and risks associated with weeds and feral animals. Weeds and feral animal awareness should also form a regular part of toolbox talks, and up-to-date identification and control materials displayed around the work sites.

2 The Permit to Disturb for activities that present a risk to land and biodiversity should assess the threat of weed establishment and spread, vehicle hygiene protocols, and feral animals. Project pre-starts are an ideal opportunity to ensure that the weed and feral animal controls identified in a project Permit to Disturb are communicated to the relevant work crews.

5 Reporting

1 Weed and feral animal management records and completed forms must be saved in Documentum and kept for a minimum of five years. As stated above, there are obligations to report certain weeds and feral animals to Biosecurity Queensland and/or local authorities, and a social duty to inform neighbouring landowners of certain weeds and feral animals and planned control programs.

6 Terms and Definitions

Term	Definition
Biosecurity Act	*Biosecurity Act 2014*
BMA	BHP Mitsubishi Alliance
DAF	Queensland Department of Agriculture and Fisheries
DAF Procedure	Department of Agriculture and Forestry Vehicle and Machinery Cleandown Procedures 2019
EA	Environmental Authority, environmental approval, under *the Environmental Protection Act 1994*, that authorises an Environmentally Relevant Activities (ERAs), including exploration, mining, bulk material handling and auxiliary activities.
EP Act	*Environmental Protection Act 1994*
EPBC Act	*Environment Protection and Biodiversity Conservation Act 1999*
GBO	Under section 23 of the Biosecurity Act, individuals and organisations have an obligation to take all reasonable and practical steps to prevent or minimise each biosecurity risk. This is known as the 'General Biosecurity Obligation' (GBO).
SDS	Safety Data Sheet
Shall	The word 'shall' is to be understood as mandatory.
Should	The word 'should' is to be understood as non-mandatory but advisory or recommended.
WONS	Weed of National Significance

Table 3: Terms and Definitions

7 References

Ref Number	Title	Document Number
	Legislative Requirements Documents	
	Qld *Environmental Protection Act 1994* - *https://www.legislation.qld.gov.au/view/pdf/inforce/current/act-1994-062*	
	Biosecurity Act 2014 - *https://www.legislation.qld.gov.au/browse/inforce#/act/title/b*	
	List of prohibited, restricted and other invasive animals in Queensland *https://www.business.qld.gov.au/industries/farms-fishing-forestry/agriculture/land-management/health-pests-weeds-diseases/pests/invasive-animals*	
	List of prohibited, restricted and other invasive plants in Queensland *https://www.business.qld.gov.au/industries/farms-fishing-forestry/agriculture/land-management/health-pests-weeds-diseases/weeds-diseases/invasive-plants*	
	Technical Reference Documents	
	Australian Pest Animal Strategy 2017 to 2027 -*https://www.agriculture.gov.au/pests-diseases-weeds/pest-animals-and-weeds/review-aus-pest-animal-weed-strategy/aus-pest-animal-strategy*	
	Australian Weeds Strategy 2017 to 2027 *https://www.agriculture.gov.au/pests-diseases-weeds/pest-animals-and-weeds/review-aus-pest-animal-weed-strategy/aus-weeds-strategy#:~:text=Australian%20Weeds%20Strategy%202017%20to%202027,of%20weeds%20on%20the%20environment.*	
	Central Highlands Regional Council Biosecurity Plan 2017-2020 *http://www.centralhighlands.qld.gov.au/wp-content/uploads/2016/09/ECM_1150510_v2_Central-Highlands-Regional-Council-Biosecurity-Pla.pdf*	
	Isaac Region Biosecurity Plan - Isaac Region Biosecurity Plan	
	Department of Agriculture and Forestry Queensland Biosecurity Manual 2019 https://www.daf.qld.gov.au/__data/assets/pdf_file/0004/379138/qld-biosecurity-manual.pdf	
	Department of Agriculture and Fisheries Vehicle and Machinery Cleandown Procedures 2019 *https://www.daf.qld.gov.au/__data/assets/pdf_file/0011/58178/cleandown-procedures.pdf*	
	Toxin 1080: A guide to safe and responsible use of sodium fluoroacetate in Queensland *https://www.daf.qld.gov.au/__data/assets/pdf_file/0010/1274185/IPA-Toxin-1080-Guide.pdf*	
	Weeds of National Significance (WONS) http://www.environment.gov.au/biodiversity/invasive/weeds/weeds/lists/wons.html	
	BHP/BMA Documents	
	BMA Wildlife Interactions and Handling Procedure	000199462
	BMA Pro 0056 Permit to Disturb Procedure	000205251
	GEO-PRO-0001 Weed Control and Management Procedure (Exploration Procedure)	000197525

Table 4: List of reference documents

8 Version Management

Version	Details	Date
1.0	Creation of document by Environment Analysis & Improvement (A&I)	07 January 2022
1.2	Cross-references updated	16 Februeary 2022

Table 5: Version Management

9 Appendix 1 – Qld Biosecurity Act Definitions & Requirements

1 The Biosecurity Act details measures to safeguard Queensland's economy, biodiversity and people's lifestyles from the threats posed by invasive pests and diseases.

2 ***Table 6*** outlines key biosecurity definitions under the Biosecurity Act.

Key Term	Definition
General Biosecurity Obligation	Individuals and organisations whose activities pose a biosecurity risk must: - Take all reasonable and practical steps to prevent or minimise each biosecurity risk; - Minimise the likelihood of causing a 'biosecurity event', and limit the consequences if such an event is caused; and - Prevent or minimise the harmful effects a risk could have, and not do anything that might make any harmful effects worse.
Biosecurity Event	A biosecurity event is an event comprising something that: - Has, or may have, a significant harmful effect on human health, social amenity, the economy, or the environment; and - Is caused by a pest, disease or contaminant.
Biosecurity Risk	A biosecurity risk is the risk that exists when you deal with: - Any pest, disease or contaminant - Something that could carry a pest, disease or contaminant (e.g. animals, plants, soil, equipment—known as 'carriers').
Biosecurity Carrier	A carrier is any animal or plant, or part of any animal or plant, or any other thing: - Capable of moving biosecurity matter attached to, or contained in, the animal, plant or other thing from a place to another place; or - Containing biosecurity matter that may attach to or enter another animal or plant, or part of another animal or plant, or another thing.

Table 6: Key definitions under the Biosecurity Act

3 Under the Biosecurity Act, a 'biosecurity matter' includes things that may pose a risk to the biosecurity of Queensland. A biosecurity matter includes plants, pests and pathogens, invasive animals, animal diseases and contaminants. The Biosecurity Act defines two types of biosecurity matter: prohibited matter and restricted matter.

a Prohibited matters, are listed in Schedule 1 of the Biosecurity Act. Prohibited matter is not found in Queensland, but would have a significant adverse impact on health, way of life, the economy or the environment if it entered the state. If found, they must be reported to Biosecurity Queensland within 24 hours, by calling 13 25 23. A person must take all reasonable and practical steps to minimise the risk of the prohibited matter until they receive advice from an authorised officer.

b Restricted matters are listed in Schedule 2 of the Biosecurity Act. Restricted matters are found in Queensland and have a significant impact on human health, social amenity, the economy or the environment. Restricted matter can include:

i diseases, viruses or parasites

ii invasive animals or plants (e.g. pest animals or weeds)

iii noxious fish

iv insect pests.

c There are seven categories of restricted matter under the Biosecurity Act:

i Category 1: must be reported to an inspector within 24 hours. Examples include fire ants, electric ants, Asian honey bees, and certain animal diseases, aquatic diseases and pathogens;

ii Category 2: must be reported to an inspector or authorised person within 24 hours. Examples include noxious fish, weeds and pest animals such as spotted gar and red-eared slider turtle;

iii Category 3: must not be distributed either by sale or gift, or released into the environment. Examples include weeds, pest animals and noxious fish (e.g. gambusia, dingoes, yellow crazy ants);

iv Category 4: must not be moved. Examples include specific weeds, pest animals and noxious fish such as the bitou bush, feral pig or giant cichlid;

v Category 5: must not be possessed or kept. Examples include weeds, pest animals and noxious fish such as Mexican feather grass, rabbits and carp;

vi Category 6: must not be fed. Examples include invasive animals such as feral deer, foxes, rabbits and wild dogs and noxious fish such as carp, gambusia and tilapia; and

vii Category 7: must be killed. Examples includes noxious fish such as carp, weatherloach, climbing perch, gambusia and tilapia.

d Several restriction categories apply to some restricted matter. In such cases, the requirements of all restriction categories must be followed. For example, the Biosecurity Act lists rabbits as category 3, 4, 5 and 6 restricted matter. This means that rabbits must not be:

i given;

ii distributed;

iii sold or traded;

iv moved within Queensland;

v kept by a person or in their control;

vi fed (except during baiting programs); and

vii must not be released into the environment or disposed of other than in the way prescribed under a regulation.

4 At a Federal level, key strategies relevant to pest and weed management are:

a The Australian National Weeds Strategy (2017 – 2027) which identifies Weeds of National Significance (WONS) requiring management and control.

b The Australian Pest Animal Strategy (2017 – 2027) which provides guidance to address the impacts of exotic vertebrate animals that have become feral animals in Australia.

5 Local governments are responsible for ensuring management of invasive plants and animals that are a prohibited or restricted matter. Local governments have developed strategies and plans to coordinate weed and feral animal management within their region (e.g. Isaac Region Biosecurity Plan 2020-2023).

6 Weed and feral animal control on sites should consider the requirements of these plans and coordination of activities at a regional level in addition to consultation with neighbouring landholders.

10 Appendix 2 – Weed and Feral Animal Profiles

10.1 Weed Profiles

1 Eleven flora species listed as restricted invasive plants under the provisions of the Biosecurity Act and/or declared a WONS have been recorded on or within close proximity to BMA Operations:

- **a** Bellyache Bush (*Jatropha gossypifolia*) – Category 3 / WONS;
- **b** Giant Rats Tail Grass (*Sporobolus pyramidalis* and *Sporobolus natalensis*) – Category 3;
- **c** Harissa Cactus (*Eriocereus martini*) – Category 3;
- **d** Hymenachyne (*Hymenachne amplesicaulis*) – Category 3 / WONS;
- **e** Lantana (*Lantana camara*) – Category 3 / WONS;
- **f** Mother-of-Millions (*Bryophyllum delagoense*) – Category 3;
- **g** Parkinsonia (*Parkinsonia aculeata*) – Category 3 / WONS;
- **h** Parthenium weed (*Parthenium hysterophorus*) – Category 3 / WONS;
- **i** Prickly Acacia (*Vachellia nilotica*) – Category 3 / WONS;
- **j** Prickly Pears (including Prickly Pear, Tiger Pear and Velvety Tree Pear) (*Opuntia spp*) - Category 3 / WONS;
- **k** Rubber Vine (*Cryptostegia grandiflora*) – Category 3 / WONS;

2 Two environmental weeds are also commonly found in areas surrounding QLD Coal mining leases:

- **a** Castor Oil Bush (*Ricinus communis*); and
- **b** Leucaena (*Leucaena leucocephala*).

10.2 Feral Animal Profiles

1 There are several species of restricted invasive animals that have been recorded on BMA Operations. The most common feral animals include:

- **a** European Red Fox (*Vulpes vulpes*) – Category 3, 4, 5 and 6;
- **b** European Wild Rabbit (*Oryctolagus cuniculus*) – Category 3, 4, 5 and 6;
- **c** Feral Cat (*Felis catus*) – Category 3, 4 and 6;
- **d** Wild Dog (*Canis familiaris*) – Category 3, 4 and 6;
- **e** Dingo (*Canis familiaris dingo*) – Category 3, 4, 5 and 6;
- **f** Feral Pig (*Sus scrofa*) – Category 3, 4 and 6;
- **g** Chital Deer (*Axis axis*) - Category 3, 4 and 6; and
- **h** Feral Rusa Deer (*Cervus timorensis*) - Category 3, 4 and 6.

2 Specific to the Hay Point Coal Terminal, the Colonial Sea Squirt is a prohibited marine animal which is known to occur in Mackay where it is predominantly found growing on submerged and floating man-made structures such as pontoons, pylons and moorings.

- **a** Colonial Sea Squirt (*Didemnum perlucidum*).

3 In addition, although not a prohibited or restricted invasive animal, the cane toad (*Bufo marinus*) is a significant threat to biodiversity in Australia and should be managed under the GBO.

- **a** Cane Toad (*Bufo marinus*).

11 Appendix 3 – Vehicle and Equipment Cleaning and Inspection Checklist

Vehicle / Equipment Type:		**Vehicle Registration / Equipment Number:**	
Inspection Completed by:		**Role and Contact Details:**	
Date:		**Location:**	

Cleaning and Inspection Checklist from DAF Vehicle and Machinery Cleandown Procedures Section 4.1 Specific cleaning checklists – cars, trucks and four-wheel drives

Area	Actions	Clean and Inspected
Interior	Check and clean the foot wells	
	Check the carpets and mats	
	Check and clean the seatbelts	
Boot	Check and clean the carpet (checking for deposits of hay, weed seeds, burrs and/or soil)	
	Check and clean the spare tyre area	
	Check and clean other recesses in the boot or rear of the vehicle	
Engine bay	Check and clean the radiator	
	Check and clean the grill	
	Check and clean the top of the transmission gearbox	
	Check and clean the recess under the windscreen wipers	
	Check and clean the air filters	
Underside	Check and clean the wheel arches, wheel trims, flares, step treads and bumpers	
	Check and clean the mudflaps	
	Check and clean the tyre rims (particularly the near side)	
	Check and clean the axles and differentials	
	Check and clean the spare tyres on four-wheel drives and station wagons. These are often suspended underneath *Note: These are high-risk areas, as contaminants collect inside the horizontally positioned rim.*	
Other areas	Check and clean the back or tray of trucks and four-wheel drives	
	Wash equipment (e.g. toolboxes, buckets, blades, tines, rippers, ladders and storage compartments)	
	Clean any tools and equipment used in the field	
	Brush down trouser legs (check inside any cuffs), ensuring all seeds and plant material is removed	
	Clean boots to ensure they are free of plant material, soil or mud	

12 Appendix 4 – Baiting Program Requirements

12.1 Feral Dog Baiting

12.1.1 Baiting Program

1 Feral dogs are controlled utilising 1080 (sodium fluoroacetate) poisoned baits. The baits are fresh meat with the 1080 injected into the bait at a measured rate. Dog species have the lowest known tolerance to 1080 and as such only a small dose is required per bait. Dog control programs are carried out in conjunction with neighbouring landholders where possible to maximise results.

12.1.2 Location of Bait Lines

2 Dog baiting programs are run along a predetermined baiting line, with baits placed every 300 to 400 metres. Baiting lines are chosen in consultation with neighbouring landholders. Bait lines are run within the boundaries of the Operation, generally following internal boundary fences. Other easements might be used as well, such as power lines and access tracks.

3 Within the document “Toxin 1080: A guide to safe and responsible use of sodium fluoroacetate in Queensland”, a number of distance requirement and exclusion zones for the placement of 1080 baits are highlighted. In light of these points in should be noted that:

- **a** No baits are to be laid within five metres of a fenced boundary;
- **b** No baits are to be laid within twenty metres of permanent or flowing water bodies, and;
- **c** No baits are to be laid within fifty metres of the centre line of a declared road.

12.1.3 Bait Preparation

4 1080 poison may only be loaded by an authorised person. The authorised person injects the 1080 poison into the prepared fresh meats baits at the appropriate concentration. A record shall be kept documenting the number of baits loaded and the amount of 1080 used. A BMA representative must sign an indemnity form which also states the land that the baits may be used on.

12.1.4 Notification

5 Signs are to be erected at all entrances to the property where baiting is occurring and along the boundary fence to a public thoroughfare. Signs are provided by the authorised person. Notification of intent to bait will be given to the Operation’s leadership team through the Superintendent HSE, and the OCE’s (or equivalent) will be notified of the baiting location and timeframe.

12.1.5 Bait Laying

6 Prepared baits are only to be handled by approved personnel utilising appropriate personal protective equipment (PPE). Baits are to be kept in the bags provided by the authorised person until placed at the identified baiting location. Baits are to be buried in shallow holes and covered with loose material or placed in mounded material as required. PPE is to be disposed (or decontaminated with water where appropriate) after the handling of each bait to minimise exposure to 1080.

12.1.6 Monitoring and Recording

7 Baits are placed along a predetermined line at 300-400 metre intervals. The actual location of each bait is to be recorded with GPS and identified with flagging tape to allow for easy recovery. Baits are to be regularly checked for the period of the baiting program, with all taken baits recorded.

12.1.7 Bait Recovery and Clean Up

8 At the cessation of the baiting program (7 days after initial baiting), all remaining baits are to be buried in a deep pit (>1m). All reasonable efforts are to be taken to remove deceased animal carcasses and bury them in the pit. Collection of remaining baits is to be undertaken using appropriate PPE.

12.2 Feral Pig Baiting

12.2.1 Baiting Program

9 Feral pigs are controlled using 1080 grain baits. Fermented corn is used as the grain bait and is tumble mixed with a predetermined amount of 1080. The concentration of 1080 in grain baits is significantly higher than that used in dog baits, however there is less requirements to handle the baited material. An authorised person loads the baits into pre-soaked grain.

12.2.2 Location

10 Feral pig baiting is conducted wherever activity has been detected, either through visual identification or by tracks and furrowing activity. All pig baiting is conducted away from mining activity to avoid interaction with mine workers.

11 Within the document "**Toxin 1080: A guide to safe and responsible use of sodium fluoroacetate in Queensland**", a number of distance requirement and exclusion zones for the placement of 1080 baits are highlighted. In light of these points in should be noted that:

- **a** No baits are to be laid within five metres of a fenced boundary;
- **b** No baits are to be laid within twenty metres of permanent or flowing water bodies, and;
- **c** No baits are to be laid within fifty metres of the centre line of a declared road.

12.2.3 Trap Establishment

12 Feral pig baiting is conducted within purpose built traps. The traps are steel panels with wire mesh screening and have one way entry doors. The traps are transported to the baiting location and installed by experienced personnel. Two people will erect traps as a minimum. Traps are to be installed utilising appropriate PPE with adherence to the SOP Manual Handling (or equivalent).

12.2.4 Pre-Feeding

13 Traps are free fed for a period prior to baiting to allow feral pigs to locate and become accustomed to the trap. Traps are monitored with infrared cameras to assess the number of pigs visiting the trap. This allows for an appropriate amount of grain to be baited. Monitoring during free feeding also allows for the identification and control of non-targeted species prior to baiting.

12.2.5 Baiting Traps

14 The loaded grain is placed into feeding receptacles within the trap. The trap is set in order to keep 1080 affected animals in the trap to allow for appropriate disposal of carcasses. The baited trap is visited daily to remove any deceased animals. In the event that non deceased animals are discovered in the trap, further baited grain is supplied to effect mortality.

12.2.6 Carcass and Bait Disposal

15 The trap is to be checked each day with all deceased carcasses removed for burial in a deep pit (>1m). Handling of carcases is to be kept to a minimum, and be undertaken using appropriate PPE and manual handling techniques. Where possible and as required, mechanical means of carcass removal shall be employed (i.e. loaders or backhoes to remove carcasses to burial pit). Handling of intact carcases poses no threat of exposure to 1080, however other hygiene issues need to be considered.

16 If no further pig activity is occurring in the trap, the baited grain is to be collected and disposed of in a deep pit (>1m). All feed bins are to be washed out with a large volume of water to remove any 1080 residue. Bins should be left upside down whilst the 1080 degrades (14 days) before free feeding use.

12.2.7 Recording

17 The location of each trap for each baiting event is to record using GPS. The number of feral pigs destroyed is to be recorded. These details shall be kept along with the date of the program and the quantity of bait used.

12.3 Safety

12.3.1 1080

18 1080 is the trade name given to sodium fluoroacetate. Sodium fluoroacetate is a naturally occurring compound found in some native flora species. Due to this, native fauna can have an increased tolerance to the poison in comparison to introduced species which makes it a useful targeted poison for the control of introduced feral animals.

19 1080 should only be handled by a competent person. The authorised person prepares the baits on behalf of the landholder. The landholder then places the baits in the desired locations. No 1080 poison is kept or stored onsite. Only prepared baits are used onsite.

12.3.2 Fresh Meat Baits

20 Fresh meat baits are prepared using pre-cut meat, with a measured dose of 1080 injected into the meat. The effective concentration of 1080 in fresh meat baits is 0.0034% 1080 by weight or 6mg 1080 per 125g of fresh meat. As the product is diluted below 0.1%, it is not classified as a hazardous substance or dangerous goods. The baits may only be handled using elbow length heavy PVC gloves which must be washed well between each use to avoid skin contact with 1080.

12.3.3 Grain Baits

21 Grain baits are made using fermented corn. The corn is tumble mixed with a predetermined dose of 1080 by the authorised person. Green food dye is added to deter grazing by birds. The effective concentration of 1080 in grain baits is 0.02% 1080 by weight or 72mg 1080 per 250g of fermented grain. As the product is diluted below 0.1%, it is not classified as a hazardous substance or dangerous goods. The baits may only be handled using appropriate PPE including elbow length heavy PVC gloves which must be washed well between uses to avoid skin contact with 1080.

12.3.4 SDS and First Aid

22 The SDS for both fresh meat 1080 baits and 1080 grain baits is stored in ChemAlert. The SDS should be referred to for information regarding PPE, first aid and toxicology.

13 Appendix 5 – Weed Inspection Form Template

PART 1 – WEED INSPECTION		
Record Number		
Date		
Locality		
Purpose of Visit (e.g. weed treatment / inspection / survey)		
GPS Coordinates of the outmost boundary of the weed infestation / treated area *Projection UTM, Datum eg. AGD 1984; AMG Zone 55*		
Total area of infestation (ha)		
Common name and category of weed species	Weed Name	
	Weed Category (e.g. 1, 2, 3)	
Cover / density of the weed species	Cover (% per m2)	
	Density (# per m2)	
Stage of development (juvenile, flowering / seeding, mature)		
Proximity of weed infested area to nearest track, road, waterway or drain (m)		
PART 2 – ADDITIONAL INFORMATION		
Proximity to protected areas / vegetation		
Condition of protected areas / vegetation		
Is this in compliance with weed control measures stipulated in the Permit to Disturb?		
	SAP #	
Have personnel completed a Vehicle Hygiene Checklist upon demobilisation?		
Visible signs of new weed infestations within proximity to treated area?		
If applicable, do topsoil stockpiles show any signs of weed establishment?		