

APPENDIX B Pest and Weed Management Plan



GLNG

Gas Transmission Pipeline

Pest and Weed Management Plan

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- D Weed Management Plans
- E Pest Animal Profiles



1. Introduction

1.1 Purpose

The purpose of this Pest and Weed Management Plan (PWMP) is to detail the requirements for the management of weeds associated with the construction of the GLNG Gas Transmission Pipeline (GTP). The PWMP is applicable to GLNG Operations (the Company) employees, Contractors and all personnel associated with the planning and construction of the pipeline.

1.2 Scope

The scope of this document is to outline the pest and weed management protocols for the various stages of the GLNG GTP and to provide the Contractor with a baseline set of weed data and management strategies to assist the Contractor in developing an acceptable CPWMP.

Pre-construction:

Clearly define the boundaries and procedures throughout the Project Area to ensure all preconstruction activities (surveys, landholder access, site visits, infrastructure upgrades and preparation) to not transfer Class 1 or 2 weeds from areas currently infested to new “clean” areas.

Construction

To provide the physical and procedural parameters and boundaries to the EPC Contractor from which they can develop their project specific ‘Contractors Pest and Weed Management Plan’. Together, these plans will provide the procedures and guidelines on how the spread of weeds throughout the Project Area will be prevented and compliance with this document will be maintained.

Post Construction

To establish the boundaries and procedures for weed management along the Pipeline for all monitoring and maintenance procedures for the Project life.

This document has been prepared in accordance with the EIS and SEIS for the GLNG Project, as well as the Project Environmental Management Plans

1.3 Objectives and Performance Criteria

The objectives and performance criteria for the PWMP (Pest and Weed Management Plan), as detailed in the GLNG Project EIS, are:

Objective

- To prevent the introduction and spread of weed and pest species throughout areas associated with the construction of the GLNG Transmission pipeline

Performance Criteria

- No new weed infestations in the Project Area (pipeline, access tracks and ancillary Project Areas (laydown areas, camps, water points, quarries etc) as a result of construction activities
- No spread of weeds from infested areas to previously weed free areas
- No mature or seeding weeds located within the Project Area during construction

- Right of Way (ROW) restored to a state that minimises the potential for weed colonisation of disturbed areas
- No net increase in the abundance or distribution of pest animal species in the Project Area

1.4 Definitions

Term	Definition
Certified Clean	Washed down vehicle Certified clean by Weed Inspector
Class 1 Declared Plant or Declared Animal	<p>A plant or animal that:</p> <ul style="list-style-type: none"> • Is not commonly present in Queensland and, if introduced, would cause an adverse economic, environmental or social impact • Are subject to eradication from the state <p>Landowners must take reasonable steps to keep land free of Class 1 pests</p> <p>It is a serious offence to introduce, keep or supply a Class 1 pest without a permit issued by the Department of Primary Industries and Fisheries</p>
Class 2 Declared Plant or Declared Animal	<p>A plant or animal that:</p> <ul style="list-style-type: none"> • Is established in Queensland and have, or could have, an adverse economic, environmental or social impact • Requires coordination and are subject to programs led by local government, community or landowners <p>Landowners must take reasonable steps to keep land free of Class 2 pests</p> <p>It is a serious offence to introduce, keep or supply a Class 2 pest without a permit issued by the Department of Primary Industries and Fisheries</p>
Class 3 Declared Plant ¹ or Declared Animal	<p>A plant or animal that:</p> <ul style="list-style-type: none"> • Is established in Queensland and has, or could have, a substantial adverse economic, environmental or social impact <p>Landowners may be required to manage Class 3 weeds in or near environmentally significant areas such as protected areas, important habitats for threatened species or areas of interest only</p>
Declared Pest	A live animal or plant confirmed to be a declared pest under the <i>Land Protection (Pest and Stock Route Management) Act 2002</i>
Infested Area	An area infested with a declared pest. These areas can be defined by local council, the regulatory body or local landholders – depending on the size of the infestation
Inspection	Inspection carried out by a trained Weed Inspector in compliance with the Queensland Government <i>Queensland Checklist for Inspection Procedures</i>

¹ This class has been inserted for information purposes only as weed surveys to date have not included Class 3 plants. However, as noted, Class 3 plants may need to be managed within environmentally significant areas and it is recommended that pre-construction surveys record the locations of such species in such areas.

Term	Definition
Project Area	Includes the pipeline ROW, access tracks and ancillary Project Areas (laydown areas, camps, water points, quarries)
Washdown Log	Log of washdowns completed for a specific vehicle/plant/equipment. The Log is maintained by the vehicle/equipment operator
Washdown	Washdown carried out, using the provisions of the Queensland Government <i>Queensland Checklist for Cleandown Procedures</i> as a Guideline, to remove organic matter and material from vehicles and equipment that may lead to the introduction or spread of weed species
Washdown Register	Washdown Facility specific Register of all washdowns completed at the particular Washdown Facility. The Register is maintained by the Weed Inspector for the particular facility
Weed Inspector	<p>Person who has completed Weed Inspector Training and is trained in the following nationally recognised units:</p> <ul style="list-style-type: none"> • RTD2312A Inspect Machinery of Plant Animal and Soil Material • RTD2313A Clean Machinery of Plant Animal and Soil Material <p>OR</p> <p>Person accepted by the Company as having the appropriate training to undertake the role as outlined in the PWMP e.g. nominated Environmental Officer(s)</p>
Weed Management Zones	The Project Area has been divided into Weed Management Zones to assist with the implementation of this PWMP. Refer to Section 2.2.1

1.5 Abbreviations

ACDC Act	Agricultural Chemicals Distribution Control Act 1966
CICSDA	Callide Infrastructure Corridor State Development Area
CPWMP	Contractor Weed Management Plan
EIS	Environmental Impact Statement
EMP	Environmental Management Plan
EPC	Engineering, Procurement and Construction
GLNG	Gladstone Liquefied Natural Gas
GRT	Giant Rats Tail Grass
GSDA	Gladstone State Development Area
GTP	Gas Transmission Pipeline
ROW	Right of Way
WMP	Weed Management Plan (this document)

2. Background

2.1 Identification of Key Risks

2.1.1 Weed Survey

Weed surveys of the pipeline route and associated Project Area have been completed. Further weed surveys will be completed by the Contractor to further refine the nature and extent of weeds within the Project Area, such that the information is current at the time construction activities commence.

In addition to consultation with local authorities and landholders, weed surveys undertaken during 2009, 2010 and a field revision in 2011 have identified the following weeds to be of major concern within the Project Area and surrounds:

- *Parthenium hysterophorus* (Parthenium) – Class 2 weed
- *Sporobolus pyramidalis* (Giant rats tail grass) – Class 2 weed
- *Eragrostis curvula* (African love grass) – major concern to landholders

Details of all species identified during the field surveys along with their location are provided as Attachment D.

2.1.2 Pest animal survey

Fauna surveys of the pipeline route and associated Project Area were undertaken between 2008 and 2010 with the following pest animals were recorded:

Canis lupus dingo and *Canis familiaris* (Dingo and wild dog) – Class 2 pest animals
Vulpes vulpes (red fox) – Class 2 pest animal
Sus scrofa (feral pig) – Class 2 pest animal
Felis catus (feral cat) – Class 2 pest animal
Oryctolagus cuniculus (rabbit) – Class 2 pest animal
Rhinella marinus (cane toad) – not a declared pest animal

Note The National Management Group, Australia's key decision-making body on emergency pests, has officially declared that red imported fire ant has been eradicated from the area, following a successful eradication and pest freedom verification program carried out by Biosecurity Queensland. This means that the movement restrictions on high-risk materials can now be lifted. This is a big win for the fire ant eradication program and the Yarwun community. However, fire ants still pose a threat and restrictions remain in place in South East Queensland. Fire ants are easily spread in soil, mulch, plants and landscaping equipment, so movement controls must be adhered to in order to reduce the risk of further spread.

Source http://www.dpi.qld.gov.au/4790_18539.htm

2.1.3 Review of Activities

A review has been undertaken of the pipeline construction activities. Activities considered to pose the highest risk of introducing or spreading weeds and pest animals are listed below and will be subject to specific controls:

- Pre-construction route field studies (eg geotechnical studies, route review with landholders, route inspection with contactors)
- Activities on pipeline route prior to clearing and grading of the ROW
 - Survey Crew

- Fencing Crew
- Clear and grade activities
- First arrival of construction vehicles, equipment and supplies
- Accessing ROW and travelling back to camps
- Movement of vehicles between crews/activities
- Deliveries of materials to the ROW
- Travelling away from Project Area after accessing the ROW

2.2 Overview of Management Strategies

The Company's strategy is controls focused on preventing the introduction and/or spread of weed and pest animal species during the construction of the GLNG GTP. The Company has determined that the controls to prevent the introduction and/or spread of Parthenium and Giant Rats Tail Grass (GRT) will also be effective in controlling the introduction and/or spread of the other weed species.

There are numerous strategies available for weed management however it must be noted that individually, they cannot adequately manage or control the spread of weeds. The effective management of weed will only be attained through the combination of a series of weed management strategies. (i.e. vehicle washdowns will not get every seed off a vehicle). Weed spraying will not kill every plant and there is no chemical that kills seeds effectively. Isolating certain vehicles to certain areas is effective, however this relies on the integrity of project personnel, which is not a factor that this project is going to rely on. In addition, the pest animal species detected in the Project Area are widespread and established across the region, so their management will require an integrated, catchment-scale approach.

2.2.1 Weed Management Zones

It will be the responsibility of the Contractor to determine appropriate weed management zones for the Project Area and manage the zones accordingly. However as a minimum, the information and mapping provided in Attachment D should be used to determine 'clean' and 'dirty' locations and develop appropriate weed management protocols.

2.2.2 Summary of Strategies

The major strategies to be implemented in the PWMP to control the identified risks are:

- a) Ongoing weed surveys and weed spraying
- b) Training of personnel in the requirements of this PWMP
- c) Establishment of weed management zones
- d) **Control vehicle and equipment movements** between zones via a sticker identification system
- e) Establishment of weed washdown facilities staffed by appropriately qualified and experienced Weed Inspectors
- f) Ensuring all vehicles, equipment and supplies brought to the Project Area and departing are **certified clean**
- g) Implementation of inspection and monitoring protocols
- h) Post-construction weed monitoring and control strategy

Note The weed control strategies outlined in this PWMP are based upon weed surveys completed during 2009, 2010 and 2011. Upon completion of any additional surveys, the weed control strategies may be further revised



Pest animals

- Ensure all vehicles, equipment and supplies brought to the Project Area are free of pest animals
- Report all sightings of pest animals and monitor changes in abundance or distribution within the Project Area
- Secure waste organic material (eg food scraps) to deter scavenging by pest animals
- Avoid creating artificial water sources (eg depressions) that provide a source of drinking water to vertebrate pests or breeding habitat to invertebrate pests
- Support a broad scale, integrated pest management approach as identified in regional and state pest management strategies

3. General provisions

3.1 Responsibilities

Company – Implementation of the PWMP up to the point of the issue of the EPC contractor. The Company is also responsible for review and acceptance of the Contractor's CPWMP, monitoring compliance of the Contractor to the requirements of the WMP and CEMP, and management of the EPC contract which contains KPI's associated with implementation of this PWMP.

Contractor – Development and implementation of a Contractor Weed Management Plan (CPWMP) to comply with the PWMP. This will include (but not limited to) completion of pre-construction survey(s) and pre-construction weed control, training of personnel (see below), provision and maintenance of equipment, facilities and associated services and consumables and the monitoring of compliance to the CPWMP².

Supervisors (Contractors and the Company) – establishment of a best practice culture and monitoring, and enforcement of the requirements of this PWMP and the CPWMP. This will include ensuring that all sub-Contractors are aware of the requirements of the CPWMP prior to entering the Project.

Plant / vehicle operators – ensuring plant/equipment is certified as clean prior to arrival to the Project Area, undertaking washdown at required locations, maintaining a Washdown Log and ensuring activities are completed in accordance with WMP and CPWMP.

Weed/Pest inspector – inspection of vehicles, certification to cleanliness, administer weed zone stickers, maintain Washdown Register for the facility and ensure serviceability of washdown equipment on site.

Note The CPWMP will be designed to demonstrate the Contractors systems and procedures by which they will ensure compliance with this document. Where the CPWMP or any other contractual document refers to the PWMP, this will imply compliance with the Company PWMP through the complete implementation of the CPWMP. A breach of the CPWMP will be a breach of the PWMP and will imply a failure to meet a Key Performance Indicator.

3.2 Training

The Company and the Contractor are responsible for ensuring that the following training is completed.

Weed/Pest Inspector(s) – Completed Weed Inspector Training and is trained in the following nationally recognised units.

- RTD2312A Inspect Machinery of Plant Animal and Soil Material
- RTD2313A Clean Machinery of Plant Animal and Soil Material
- Alternate training and/or experience accepted by the Company (refer to Section 1.4)

All personnel – inducted to requirements of the PWMP including:

- Identification of key weed species and pest animal species
- Washdown requirements (on specific vehicles and where to clean)
- Access protocols (between the specified zones)
- Certification process (stickers, Washdown Log, Washdown Register, Weed Inspector)



² Records of all induction and training completed shall be maintained to demonstrate compliance with this PWMP. The CPWMP will be designed to *demonstrate the Contractors systems and procedures by which they will ensure compliance with this document. Where the CPWMP or any other contractual document refers to the PWMP, this will imply compliance with the GLNG PWMP through the complete implementation of the CPWMP. A breach of the CPWMP will be a breach of the PWMP and will imply a failure to meet a Key Performance Indicator.*

4. Company Pre-Construction Weed and Pest Animal Management

This section applies to all activities undertaken by the Company and associated Contractors or consultants prior to award of the EPC contract.

Upon award of the contract and approval of the CPWMP by the Company, all Project personnel shall comply with the requirements of the CPWMP.

4.1 Weed Identification and Control

4.1.1 Requirements

Weed Identification

- Weed surveys of the Project Area (including ROW, access tracks and any known ancillary areas) were undertaken by trained personnel/contractors in June and September of 2009 (dry season) and February and June of 2010 (post wet season). An additional review has been undertaken in April 2011 and the results have been attached in the update plans and material
- Weeds identified were recorded and have been mapped accordingly (refer Attachment D)
- The Company personnel will continue to liaise closely with local Council officers and landholders for existing weed information
- Survey findings will be utilised by Project personnel and Contractors to define the specific weed control measures for construction and the targeted weed control program

Weed Control

- Prior to the appointment of the Contractor, weed control of the Project Area (ROW, camps, storage areas, access) will be undertaken by appropriately qualified and experienced contractors who are appropriately licensed under the *Agricultural Chemicals Distribution Control Act 1966* (ACDC Act)
- Where possible, weed control will be scheduled to occur prior to weed seeding
- Prior to weed spraying, relevant land holders will be consulted
- Significant weed infestation areas will be monitored after treatment and repeat treatment undertaken as required

4.1.2 Performance Indicators

- Weed surveys undertaken during at least one dry and one wet season.
- Weed outbreaks recorded in GIS
- Weed control completed and recorded
- Weed zones established, monitored and marked on project maps (updated as applicable)
- No mature weeds or seeding plants within Project Area

4.2 Pre-Construction Access to Project Area

This section applies to all vehicles accessing the Project Area and travelling off sealed public roads.

4.2.1 Requirements

- Planning for access to the Project Area will include:
 - Identification of existing vehicle washdown facilities and planning work around the location of washdown facilities (refer to Attachment A for a list of public facilities)
- If applicable, fixed washdown facilities and washdown procedures shall comply with:
 - *Queensland Guideline for the Construction of Vehicle and Machinery Washdown facilities* (refer to Section 8)
 - *Queensland Government Checklist for Clean-down* (refer to Section 8)
- When moving between ‘dirty’ and ‘clean’ areas, within the Project Area, vehicles, plant and/or equipment will:
 - Be washed down and certified clean
 - Provide/be issued with a Weed Hygiene Declaration Form
 - All vehicles/equipment/plant shall have a Washdown Log (refer to Attachment B for an example of a washdown log) that must be maintained by the vehicle operator. This includes washdowns that require certification and washdowns completed by the vehicle operator. Washdown Logs are auditable and shall be provided upon request
- Vehicle operators:
 - Shall remain on designated access tracks and avoid driving through weeds as far as possible
 - Must not drive through flowering or seeding plants
- The location of any mature and/or seeding weed species is to be reported to the Company Pipeline Environmental Manager within 24 hrs

4.2.2 Performance Indicators

- Weed locations marked on Project maps
- Washdown Logs implemented and maintained
- Washdown Logs demonstrate washdown occurring to coincide with vehicle/equipment/plant movements
- Washdown facilities are available at all times (mobile/temporary units are available prior to establishment of fixed facilities)
- Weed Inspectors present at active washdowns
- No driving through seeding or flowering weed plants

5. EPC Contractor Pre-Construction Weed and Pest Animal Management

This section applies to all activities undertaken by the EPC Contractor prior to the commencement of construction. The only field activities that may be carried out under this section prior to the establishment of washbays and other weed control infrastructure will be weed surveys, or weed management work and/or work associated with the establishment of fixed weed washdown facilities.

5.1 Project Establishment

5.1.1 Requirements

Development of Construction Weed Management Plan

- CPWMP shall:
 - Be prepared by the Contractor and submitted to the Company for approval prior to any work under the EPC contract commencing
 - Comply with the requirements of this PWMP
 - Establish a system to control the movement of vehicles and equipment between weed management zones (refer to Section 2.2.1)
 - Provide the procedures that detail how compliance will be implemented
 - Establish a system to monitor and report on pest animal abundance and distribution
 - Identify the control measures that will be adopted to manage the impacts of existing pest animals within the Project area

Weed Zones

- Weeds management zones will be developed and implemented by the Contractor
- The construction area will be divided into weed management zones for the purpose of defining and preventing the unrestricted movement of vehicles from 'dirty' to 'clean' zones
- The zones shall be clearly identified both in the CPWMP and on the ground and work programs and flow designed around the zones
- Zones shall be clearly marked on construction drawings and within the field

Establishment of Washdown Facilities

- The location of project specific weed washdown facilities will be determined in consultation with weed management zone maps
- These washdown facilities shall be established to enable the efficient movement of vehicles between the weed zones whilst ensuring material that may facilitate the introduction or spread of weeds is removed. This may include the use of mobile washdown facilities where appropriate
- As a minimum, these washdown facilities shall be installed at the following locations:
 - At each construction camp
 - Boundaries of each weed zone
 - Major access points to the ROW, corresponding with weed zone boundaries
- Additional washdown facilities shall be constructed/resourced as required
- Each active washdown facility that is established for certification of vehicles shall be permanently staffed by an appropriately experienced and qualified Weed Inspector (when works are not occurring in that area there will be no need for an

inspector, however arrangements will be required to be made for an inspector to certify the vehicle if movement through the facility is required)

- Washdown facilities shall:
 - Be sized and equipped to facilitate the quick movement of vehicles and equipment within the Project Area whilst ensuring compliance with the CPWMP or this PWMP
 - *Comply with Queensland Guideline for the Construction of Vehicle and Machinery Washdown facilities* (refer to Section 8)
 - Include equipment to remove material from within the vehicle
- The location of Washdown Facilities shall be recorded in the project GIS, clearly marked on project maps and included in the inspection and monitoring program

Location of Infrastructure and Access routes

- It is recommended that construction camps be established such that crews can work within a defined zone and travel to and from camp without crossing a zone
- The location of construction access routes, delivery areas, stockpiles and laydown areas shall take into consideration the location of these zones and weed management strategies outlined in this PWMP
- Access routes shall be planned to achieve the following:
 - Vehicles operate in such a manner as to limit crossing of weed zone boundaries
 - Vehicles start in clean areas and then move into the dirty areas
 - Vehicles do not drive through or contact any seeding or flowering weeds
 - Vehicles are subject to washdown and certification to move between zones

5.1.2 Performance Indicators

- CPWMP developed and approved by the Company prior to entry to the field (HOLD POINT)
- Weed zones established and marked on project maps
- Project specific weed washdown facilities are immediately established and identified on project maps
- Weed Inspectors are present at designated washdown facilities

5.2 Weed and Pest Animal Identification and Control

5.2.1 Requirements

Weed Identification

- Prior to construction, regular weed surveys of the Project Area (including ROW, access tracks and any known ancillary areas) shall be undertaken
- Weed surveys shall be:
 - Undertaken by trained personnel or Contractors
 - Scheduled for times of high weed growth ie within 2 weeks or as soon as possible after first significant rainfall event and/or after periods of high rainfall
- Weeds identified shall be recorded in project GIS and included in project mapping

Pest animal identification

- Prior to construction, regular pest animal surveys of the Project Area (including ROW, access tracks and any known ancillary areas) shall be undertaken;
- Pest animal surveys shall be: Undertaken by appropriately qualified and experienced personnel or Contractors. Scheduled for both night (spotlight

searches) and day. Undertaken incidentally dependent on environmental conditions (eg pest predator populations may irrupt following periods of high rainfall):

- Incidental sightings of pest animals should be recorded and included in weekly Environmental Reports
- Pest animals identified shall be recorded in project GIS and included in project mapping

Weed Control

- Prior to construction, weed control of the Project Area (ROW, camps, storage areas, access) shall be undertaken by appropriately qualified and experienced Contractors who are appropriately licensed under the ACDC Act
- Weed control shall be scheduled to occur prior to weed seeding
- Prior to any weed spraying, permission shall be obtained from the Company
- Significant weed infestation areas shall be monitored after treatment and repeat treatment undertaken as required

Pest animal control

- If deemed necessary (ie where infestations occur), prior to construction, pest animal control of the Project Area (ROW, camps, storage areas, access) shall be undertaken by appropriately qualified and experienced Contractors who are authorised persons under the *Land Protection (Pest and Stock Route Management) Act 2002*
- Pest animal control shall be humane, strategic, integrated and adopt best practice principles as outlined in the following publications:
 - NSW Department of Primary Industries Humane Pest Animal control: Code of Practice and Standard Operating Procedures and related Model Codes of Practice for the Humane Control of Vertebrate Pests which are available at the following link <http://www.feral.org.au/tag/COP/>
 - The Animal Care and Protection Act 1994 specifically in relation to the appropriate treatment and euthanasia of pest animals. Any euthanasia will be undertaken in accordance with the Australian Code of Practice for the Care of Animals for Scientific Purposes, 7th Edition, 2004
 - Threat Abatement Plans for key species. GLNG will act within the requirements of threat abatement plans. Specifically the plans require a property management plan; in this case the pest and weed management plan will fulfil this requirement. The threat abatement plan requires input to local and regional databases for pest animal distribution. GLNG will collect data on pest species captured and will make this data available for reporting
 - The QLD government pest animal fact sheets
- The approach will be to manage pests encountered within the RoW during trenching activities. The Fauna Handler is to euthanise the animal as per the Fauna Handling Procedure. Where pest numbers are a concern to human safety (e.g. high numbers of feral pigs), a suitably qualified vertebrate pest field officer is to be contacted to implement a mitigation strategy (i.e. culling activities). Prior to any pest animal control, permission shall be obtained from GLNG
- Significant pest animal infestation areas shall be monitored after treatment and repeat treatment undertaken as required

5.2.2 Performance Indicators

- Weed and pest animal surveys monthly or more frequently after rain events
- New weed outbreaks recorded in GIS



- Weed control completed and recorded
- No flowing or seeding weeds within Project Area
- Company approval obtained prior to spraying
- Incidental sightings of pest animals recorded

6. Project Weed Management

6.1 Management of Access to the Project Area

6.1.1 Requirements

The Contactor shall establish a system for the control of vehicles within and between weed management zones and this system shall be documented in the CPWMP submitted to the Company for approval. The minimum requirements are outlined below.

- Prior to entering or leaving the Project Area vehicles, plant and/or equipment shall:
 - Be washed down and certified clean
 - Provide/be issued with a Weed Hygiene Declaration Form
- Additional washdown and certification will be required:
 - When travelling from a 'dirty' weed management zone to a 'clean' weed management zone (refer to Section 2.2.1). Vehicles will require the old sticker to be removed and a new one issued
 - All vehicles shall display the appropriate sticker(s) to define the zone they are approved to access and travel within
 - Different stickers shall represent authorisation for different zones and each sticker shall be numbered
 - Signage shall be installed at key points within the Project Area clearly outlining the Zone and certification requirements for entry and exit
 - Site specific washdown facilities shall be established in accordance with Section 5.1 and operated in accordance with Section 6.3
 - Boundary fence lines shall be marked both on alignment sheets and in the field, and crews shall not transfer anything across these lines unless authorised by the relevant Supervisor
 - No organic material shall be moved between zones
 - No haybales or equivalent materials shall be used on the project

Clear and Grade Crew

- Clear and grade crew will be subject to additional washdown at defined locations along the ROW where the specific weed infestation changes occur (eg Prickly Acacia, Mother of Millions and Rubber Vine)
- This will apply between specified properties within relevant zones
- The location of additional washdown points shall be clearly identified both on alignment sheets and in the field
- Washdowns in this situation shall be recorded by the Environmental Officer or the Weed Inspector in the relevant Washdown Log

6.2 Road Vehicles and Deliveries

The protocols for access to the Project Area outlined in Section 6.1 shall apply to all vehicles, including delivery vehicles, buses etc, even if they are only travelling on sealed public roads. The Contractor may propose an alternate system (must be approved by the Company prior to implementation) that includes the following requirements:

- Vehicles that are limited to travel on public roads must not leave a public road unless it is washed down and certified again prior to re-entering that public road

- Delivery vehicles travelling off sealed public roads must wash down and be certified for all travel from a 'dirty' to a 'clean' zone

6.3 Operation of Washdown Facilities

6.3.1 Requirements

- Site specific weed facilities shall be established in accordance with Section 5.1
- Stickers designating vehicle cleanliness and zone authorisation shall only be administered:
 - By a Weed Inspector
 - Once a vehicle is certified clean
 - For the zone where access is required
- Stickers may only be removed by a Weed Inspector
- Procedures for the washdown and inspection of vehicles shall:
 - Be established and documented in the CPWMP
 - Comply with the *Queensland Government Checklist for Clean-down and Inspections* (refer to Section 8)
- The vehicle/plant/equipment operator shall maintain the Washdown Log for all washdowns completed (refer to Attachment B)
- The Weed Inspector shall maintain a Washdown Register of all washdowns and vehicle/plant/equipment certifications completed at their allocated facility (refer to Attachment C for an example of a washdown register)
- Stickers shall be numbered and the corresponding number recorded on the Washdown Logs and Washdown Registers
- Upon departure from the Project Area, all stickers shall be removed by a Weed Inspector

Both a washdown log and washdown register are shown in Attachments B and C respectively. The washdown log is for the vehicles and is carried around in each piece of machinery. Signoff will be by the person operating the machinery. The washdown register is for the washdown bays themselves and will have signoff by a certified inspector.

6.3.2 Performance Indicators

- Washdown Registers and Washdown Logs consistent and correspond to vehicle movements
- Vehicles displaying correct stickers
- Weed Inspectors present and certifying to appropriate standard at active washdowns
- Washdown facilities are maintained and fully operable
- No mature weeds in flower or seed throughout the ROW and Ancillary works areas

6.4 Inspection and Monitoring

The Contractor shall establish an Inspection and Monitoring Program defining the scope, the interval and responsibility. The program shall be documented within the CPWMP.

As a minimum, the inspection and monitoring program shall include:

- Random checks on cleanliness of vehicles/plant/equipment and completion of Washdown Logs



- Daily inspection of vehicles within each zone to ensure correct stickers are displayed
- Weekly inspection/monitoring of Project Area for evidence of weeds
- Spraying of weed infestations by licensed Contractors (as approved by the Company)
- Random inspection of Washdown Logs and facility Washdown Registers – for consistency and correspond to vehicle movements
- Inspection of facility Washdown Registers and random cross checking of Washdown Registers versus Vehicle Washdown Logs

Corrective Action

- Equipment/vehicles failing inspections will be subject to be rewashed prior to certification
- Weed spraying of weed outbreaks
- Incident report or non-conformance report raised for non-compliances identified
- Contractor will assume responsibility for future management of weeds in an area of non-compliance
- Repeated non-compliance will result in stop-work, recertification of equipment and retraining of individuals

6.5 Records to be Maintained

The Contractor shall document within the CPWMP, the records that will be maintained to demonstrate compliance with this PWMP. This shall include the title, responsible person and the storage location for that record. As a minimum, this shall include:

- Washdown Logs for vehicles/plant/equipment
- Washdown Registers for facilities
- Records of Inspections completed as outlined in Section 6.4
- Induction and Training Records
- Incident Reports
- Non-compliance reports
- Audit Reports
- Evidence of weed surveys and monitoring activities
- Records of weed control activities

7. Project Pest Management

7.1 Prevent establishment of pest animals

7.1.1 Requirements

Pest animals known to occur in the Project Area are listed in section 2.1.2. Any new pest animals detected are to be reported immediately to Company and recorded in the Project GIS.

7.1.2 Performance indicators

- Pest animals are not proliferated in the Project Area

7.2 Management of existing pest animals

7.2.1 Monitoring

Spotlight and diurnal surveys

The Contractor will establish a regular monitoring program of nocturnal (spotlight) and diurnal ground pest animal surveys. These surveys shall:

- Occur at least every two months
- Be either on foot or by slow moving vehicle
- Be representative of all regions of Project Area (ROW, camps, storage areas, access)
- Be undertaken by appropriately qualified and experienced personnel
- Follow accepted survey methodology for transect surveys of ground-dwelling vertebrate fauna (see for example, EPA (1999) and Eyre et.al (1997))
- Be recorded in the Project GIS

Incidental and opportunistic sightings

All staff shall report all sightings of the pest animal species listed in section 2.1.2 to the Environmental Manager (see Attachment E to aid identification), which will be included in weekly environmental reporting and recorded in the Project GIS. 'Sightings' include:

- Seeing the actual animal
- Tracks and scats
- Indicative habitat disturbance (eg digging/uprooting by pigs)
- Evidence of habitat use (eg Den sites of foxes, rabbit burrows)

Indirect evidence of incidental pest animal sightings should be confirmed by appropriately qualified and experienced personnel wherever possible.

Regular monitoring will be used to estimate relative abundance and distribution of pest animals, and identify areas that may require control measures.

7.2.2 Performance indicators

- Regular transect surveys are undertaken and reported in the Project GIS
- Incidental sightings are reported and recorded in the Project GIS and weekly environmental reports. Relative abundance and distribution of pest species is closely monitored to detect increases and/or areas requiring control measures

7.3 Pest animal control

7.3.1 Legislative definitions and requirements

The pest animals listed in section 2.1.2. are declared as class 2 pests under schedule 2 of the *Land Protection (Pest and Stock Route Management) Regulation 2003*, with the exception of the cane toad (*Bufo marinus*) which is not a declared pest. Class 2 pests are defined under section 38 of the *Land Protection (Pest and Stock Route Management) Act 2002* (LP Act), as:

“Established in the State and (is) causing, or has the potential to cause, an adverse economic, environmental or social impact in the State”.

Under section 77 of the LP Act, landowners must take reasonable steps to keep their land free of Class 2 pests.

Under The *Pest Management Act 2001*, any pest control or fumigation activity must be carried out by an appropriately qualified and licensed technician.

Section 42 of the *Animal Care and Protection Act 2001* instructs that any act to control a pest animal must be done in a way that causes the animal as little pain as is reasonable. The Australian Government Department of Sustainability, Environment, Water, Population and Communities provide model codes of practice for the humane control of each of the class 2 pests listed in section 2.1.2., which may be accessed at the following links:

<http://www.environment.gov.au/biodiversity/invasive/publications/humane-control.html>

This Department has also published threat abatement plans for rabbits, feral cats and foxes, available here:

<http://www.environment.gov.au/biodiversity/threatened/tap-approved.html>

and has drafted a threat abatement plan for cane toads, which may be accessed here:

<http://www.environment.gov.au/biodiversity/threatened/tap-drafts.html>

The Queensland Government Department of Employment, Economic Development and Innovation publish operational guidelines for the management of each of the class 2 pests listed in section 2.1.2., which may be accessed here:

http://www.dpi.qld.gov.au/4790_8422.htm

This list of legislative requirements is not exhaustive, and there are many other pieces of State and Commonwealth legislation that may influence pest animal management in Queensland.

Pests and Weeds will be managed throughout the life of the project (including both operational and decommissioning phases) in accordance with the legislative requirements and guidelines listed above.

7.3.2 Pest management planning framework

A range of pest management planning instruments exist at the National, State, Regional and Local Government level. Those that relate to pest animal management in the Project Area are listed in Table 1.

Table 1 Pest Management Planning Framework

National	State	Regional	Local Government
Australian Pest Animal Strategy 2007	Qld Pest Animal Strategy 2002-2006	Capricorn Pest Management Group Regional Pest Management Strategy 2004-2009	Calliope Shire Council Pest Management Plan 2005-2008*
Threat Abatement Plan for Competition and Land Degradation by Rabbits 2008	Wild Dog Management Strategy 2010-2015 (Consultation Draft)		Gladstone City Council Pest Management Plan 2005-2008
Threat Abatement Plan for Predation by European Red Fox 2008	Feral Pig Management Strategy 2004		Bananna Shire Council Pest Management Plan 2005-2009
Threat Abatement Plan for Predation by European Feral Cats	Rabbit Management Strategy 2001-2006		
	Pest Management Plan Areas Managed by Qld Parks and Wildlife Service July 2003-2008		

*Calliope Shire Council and Gladstone City Council amalgamated in 2008 to form Gladstone Regional Council

This PWMP is consistent with the principles of the relevant planning instruments outlined above. The contractor will ensure that the CPWMP is also aligned with these principles.

7.3.3 Active control of pest animals

Effective control of pest animals may include any or a combination of the following methods:

- Killing/removal (eg trapping, baiting)
- Exclusion (eg fencing)
- Habitat manipulation (eg rabbit warren ripping)

Control of the pest animal species listed in Section 2.1.2 will occur according to the legislative instruments in Section 7.3.1 and the planning documents in Section 7.3.2. Permission must be sought from The Company before undertaking any of the control methods in this section.

Killing/removal

Only to be undertaken by authorised personnel as prescribed by the relevant Acts (see section 7.3.1) where outbreaks are known to have occurred and control is mandatory under the legislation listed in section 7.3.1.

Exclusion

All areas that contain organic waste material (e.g. food scraps) will be fenced or otherwise adequately secured to prevent scavenging by pest animals.



All areas of significant water ponding that are created during the course of construction will be enclosed by temporary fencing to prevent access by pest animals.

Habitat manipulation

Wherever practicable, and subject to the approval of the Company and compliance with all relevant legislation, any rabbit warrens or fox dens that are encountered will be destroyed.

7.3.4 Performance Indicators

All relevant legislation is complied with :

- CPWMP is consistent with Commonwealth, state, regional and local pest management planning instruments
- Pest animal control methods adhere to recommended guidelines and best practice principles according to the documents in Section 7.3.1
- Pest animal outbreaks are contained and managed effectively and in a timely manner
- All pest animal control actions are recorded in the Project GIS and reporting tools
- The distribution and abundance of pest animals in the Project Area does not increase



8. Post Construction

8.1 Monitoring and Control Program

Pests and Weeds will be managed as required throughout the life of the project, including during operational and decommissioning phases of the pipeline.

Monitoring will determine the success of management measures or requirements for further actions. Any pest or weed species identified during site inspections and audits will be recorded, and appropriate management measures will be employed in response to the presence of these species.

A Weed Monitoring and Control Program (to be included as part of the CPWMP) will be developed and implemented and will include (but not limited to):

- The rate of monitoring and control post completion will be as follows:
 - Post rain event – once a month for three months
 - Otherwise, once every two months
 - In response to landholder or operator request
- Weed monitoring and control activities shall include all Project Areas (eg tracks, ROW, camps, laydown and storage areas)
- Weed control shall be undertaken by appropriately qualified and experienced Contractors who are appropriately licensed under the ACDC Act

Weed monitoring and subsequent weed control will continue under the control of the Contractor for 2 years after completion of pipeline construction. During pipeline operation and decommissioning this responsibility will be handed to the Pipeline Operator.



Reference Material

Queensland Checklist for Clean Down Procedures

http://www.dpi.qld.gov.au/documents/Biosecurity_EnvironmentalPests/IPA-Cleandown-Procedures.pdf

Queensland Checklist for Inspection Procedures

http://www.dpi.qld.gov.au/documents/Biosecurity_EnvironmentalPests/IPA-Inspection-Procedures.pdf

Queensland Guideline for the Construction of Vehicle and Machinery Washdown facilities

http://www.dpi.qld.gov.au/documents/Biosecurity_EnvironmentalPests/IPA-Washdown-Fac-Guidelines.pdf

Weed Hygiene Declaration Form

http://www.dpi.qld.gov.au/documents/Biosecurity_EnvironmentalPests/IPA-Weed-Hygiene-Declaration.pdf

2009 Pipeline Weed Survey

GLNG Pipeline FEED – Weed Survey Report August 2009, prepared by GHD.,
GLNG DOC No. 3380-GHD-3-3.3-0323.

2010 Weed Survey Report June 2010

GLNG Pipeline FEED – Weed Survey Report June 2010, prepared by GHD.DOC
No. 21386-D-RP-012 REV A.

Coordinator-General's Evaluation Report for an EIS May 2010 – Appendix 3 Gas
Transmission Pipeline – Part 4 Schedule E – Pest and Weed Management
Conditions (E37) a, b and c

DSEWPC – EPBC Approval No2008/4096, Conditions (3) f and g.



Attachments

Attachment A Existing Washdown Facilities

Taken from

http://www.dpi.qld.gov.au/cps/rde/dpi/hs.xsl/4790_8243_ENA_HTML.htm

<p>Baralaba Landmark: near showground and old saleyards Address: Rannes Road Contact: Banana Shire Council Telephone: (07) 4992 9512 Maximum vehicle size: machinery Height limit: no Hose detail: high pressure; high volume hose Cost: \$2 for 15 minutes Surface: concrete slab with tilt Hours: n/a</p>	<p>Biloela Landmark: adjacent to water treatment plant Address: Quarry Road Contact: Gordon Twiner, Banana Shire Council Telephone: 0427 148783 Maximum vehicle size: road train Height limit: no Hose detail: high pressure; high volume hose Cost: \$2 for 15 minutes Surface: concrete slab with tilt Hours: n/a</p>
<p>Bingegang Landmark: near substation and pump station Address: Mackenzie River Capella Road Maximum vehicle size: semitrailer Height limit: no Hose detail: high pressure hose Cost: free Surface: concrete slab Hours: 24 hours</p>	<p>Calliope Landmark: Country Club turnoff Address: Stowe Road Contact: Gladstone Regional Council Telephone: (07) 4975 8100 Maximum vehicle size: semitrailer Height limit: no Hose detail: high volume hose Cost: tokens (\$2 for 15 minutes) available from Choice Service Station: Calliope Cross Roads CQP service station Gladstone Regional Council Surface: concrete slab/bitumen</p>
<p>Injune Landmark: saleyards Address: Roma Road, Injune Contact: Steve Murray, Roma Regional Council Telephone: (07) 4622 1144 Mobile: 0428 261290 Maximum vehicle size: body truck and car (side-by-side); road trains or headers Height limit: no Hose detail: high pressure water; high pressure air and Town pressure Cost: 50 cents per minute Surface: cement slab with ramp Hours: 7 am - 5 pm with key access operational 24 hours</p>	<p>Gladstone Landmark: Gladstone Superwash Address: 154 Goondoon Street Telephone: (07) 4972 9202 Maximum vehicle size: cars and 4WDs Height limit: n/a Hose detail: high pressure spray Cost: \$1 for 2 minutes Surface: n/a Hours: n/a</p>



<p>Moura Landmark: west of town near water treatment plant Address: Dawson Highway Contact: Gordon Twiner, Banana Shire Council Telephone: 0427 148783 Maximum vehicle size: road train (also has a facility for smaller vehicles) Height limit: no Hose detail: high pressure; high volume hose Cost: \$2 for 15 minutes Surface: concrete slab with tilt Hours: n/a</p>	<p>Rolleston Landmark: near sports ground; cattle dip and old saleyards Address: One Mile Road Contact: Central Highlands Regional Council Telephone: (07) 4984 1166 Maximum vehicle size: semitrailer with prime mover Height limit: no Hose detail: high pressure low volume hose 20 L per minute Cost: \$2 per 30 minutes Surface: 23 m concrete slab Hours: 24 hours</p>
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Attachment B – Example Washdown Log for Vehicles/Plant/Equipment

Vehicle / Plant and Rego/ID Number : _____

Date	Driver	Washdown Location	Sticker Number Added	Sticker Number Removed	Authorised Signature
			eg Zone 2 #234	eg Zone 1 #123	



Attachment C – Example Washdown Register

Washdown Facility Name : _____


	Vehicle/Plant	Rego/ID No	Sticker number Added	Sticker number Removed	Authorised officer's Name and Signature



Attachment D – Weed Management Plans

Attachment E – Pest Animal Profiles

Declared Species

<p>Species Name: <i>Canis lupus / Canis familiaris (Dingo / Wild dog)</i></p> <p>Status: Class 2 pest (LP Act)</p> <p>Description: The dominant coat colours are red, ginger and sandy-yellow, although they can also be pure white, black and tan or solid black. Dingoes have a more heavily boned skull and larger teeth (especially the canine) than domestic dogs of similar size. They are naturally lean with large ears pricked, a white tip on the tail and white socks (DPIF 2007a). Adults can reach up to 60cm in height, with females weighing approximately 12kg and males 15kg (DPIF 2007a) Wild dogs refers collectively to dingoes, hybrid dingoes and domestic dogs that have escaped or been deliberately released</p> <p>Distribution: Although thought to have arrived between 3,500-4000 years ago, it is not part of the ancestral fauna of Australia (DPIF 2007a)</p>	<p>Source: (EPA 2007a)</p> 
<p>Dingoes/wild dogs are present in all parts of Queensland however the distribution of the wild dog in relation to purebred dingoes varies</p> <p>Impact: Dingoes/wild dogs can carry diseases such as distemper and parvovirus. Their majority of their diet consists of native species such as kangaroos, wallabies, rabbits and possums (DPIF 2007a). However, wild dogs can kill, harass or maim livestock and other native fauna</p> <p>Management Requirements: The operational objectives for the management of wild dogs include reducing their numbers throughout the Project Area</p> <p>Monitoring Process: Report any dingo/wild dog sightings in the weekly Environmental Report</p> <p>Control Actions: Fauna exclusion fencing to be utilised where necessary. If required, recommended active control methods include baiting, trapping and ground shooting</p>	

Species Name: *Felis catus* (Feral cat)

Status: Class 2 pest (LP Act)

Description: A feral cat is one that is not fed and kept by someone. The word 'kept' specifically means that is cat is housed in a domestic situation

The feral cat differs little in appearance from its domestic counterpart, however when in good condition is displays overall muscle development, particularly noticeable around the head, neck and shoulders (DPIF 2007d)

Feral cats are predominantly short-haired with coat colour range including ginger, tabby, tortoiseshell, grey and black. Males weigh between 3-6 kg and females 2-4 kg depending on condition. Feral cats are most active at night, with peak hunting activity occurring soon after sunset and in the early hours before sunrise (DPIF 2007d). During the day it will rest in any number of den sites including hollow logs, dense clumps of grass, piles of debris, rabbit burrows and hollow limbs of standing trees (DPIF 2007d)

Source: (DPIF 2008b, Invasive Animals CRC 2007b)



Distribution: The feral cat is now present Australia-wide in a variety of habitats

Impact: Feral cats are opportunistic predators of small mammals, birds, reptiles, amphibians, insects and fish (DPIF 2007d). They can be particularly harmful in island situations and have caused the extinction of a number of species. Feral cats also compete for prey with native predatory species such as quolls, eagles, hawks and reptiles

Feral cats may contain a parasite (toxoplasmosis) that can be particularly harmful to marsupials, causing blindness, respiratory disorders, paralysis and loss of offspring (DPIF 2007d)

Management Requirements: The operational objective for the management of feral cats is to reduce their numbers throughout the Project Area.

Monitoring: Reporting all cat sightings in the weekly Environmental Report

Control Actions: Fauna exclusion fencing to be utilised where necessary. If required, recommended active control methods include trapping and ground shooting

Species Name: *Vulpes vulpes* (European red fox)

Status: Class 2 pest (LP Act)

Description: Foxes have pointed muzzles, a flattened and slender skull, large ears and long bushy tails (DPIF 2007c). Adult males weigh approximately 6kg and females approximately 5 kg
 Foxes are usually active at night and rest during the day in an earth den, thicket, hollow log or stick-rake pile. However, in winter when less food is available, foxes may hunt and scavenge during the day
 Distribution: The most common and widespread of the world's fox species, the European red fox has adapted to a variety of habitats ranging from deserts to urban environments. However, they are not found in tropical areas of Australia (DPIF 2007c). Competition with dingoes, climatic preferences and food supply are thought to determine their distribution (DPIF 2007c)

Impact: Foxes are considered to be the greatest threat to the long-term survival of many small mammal species in Australia and play a major role in the decline of ground-nesting birds, critical weight mammals and reptiles such as the green turtle (DPIF 2007c). The European red fox is also thought to have caused a severe reduction in populations of many other threatened species throughout Australia

Source: (EPA 2008 and Invasive Animals CRC 2007a)



Management Requirements: The operational objective for the management of European foxes is to reduce their numbers throughout the Project Area

Monitoring: Report all fox sightings in the weekly Environmental Report

Control Actions: Fauna exclusion fencing to be utilised where necessary. If required, recommended active control methods include baiting, trapping, ground shooting and den fumigation

Species Name: *Sus scrofa* (Feral pig)

Status: Class 2 pest (LP Act)

Description: Feral pigs are predominantly black, buff-coloured or spotted black and white, while juveniles can be striped. Mature boars have a large head and shoulders and a raised and prominent back bone which slopes steeply down to small hams and short hind legs (DPIF 2007e)

Feral pigs are smaller, leaner and more muscular than domestic pigs, with well-developed shoulders and neck and smaller, shorter hindquarters (2007e). Feral pigs have sparser, longer and coarser hair than domestic pigs and have longer, larger snouts and tusks, straight tails, smaller mostly pricked ears and narrower backs (DPIF 2007e)

Feral pigs are generally nocturnal, spending daylight hours sheltered in dense cover. They are shy animals and will avoid human contact

Distribution: Feral pigs inhabit approximately 40% of Australia and are found in all habitat types in Queensland (DPIF 2007e).

Estimations of numbers range up to 24 million with the greatest concentrations of feral pigs found in the larger drainage basins and swamp areas of the coast and inland (DPIF 2007e)

Impact: Feral pigs impact the environment through predation on native animal species, consumption of native flora and damage to watercourses and wetlands. They can also carry many infectious diseases and internal and external parasites. Many of these diseases can spread to humans and livestock (DPIF 2007e)

Source: (DPIF 2008c, EPA 2006, IACRC 2007)



Management Requirements: The operational objective for the management of feral pigs is to reduce their numbers throughout the Project Area

Monitoring: Report all pig sightings in the weekly Environmental Report

Control Actions: Fauna exclusion fencing to be utilised where necessary. If required, recommended active control methods include trapping, baiting and ground shooting

Species Name: *Bufo marinus* (Cane toad)

Status: The cane toad is not a declared pest in Queensland and such there is no legal requirement to control them

Description: In comparison with the native frog and toad species, adult cane toads have a distinctive head and face and are large, heavily built creatures (DPIF 2007f). A high angular bony ridge extends from the eyes to the nose (DPIF 2007f). Adult cane toads have large glands that carry toxin on the shoulder behind the tympanum (ear opening) (DPIF 2007f). The hands and feet are relatively small and lack webbing between the fingers but is present between the toes (DPIF 2007f). In comparison to native frogs, cane toads assume an upright, rigid posture

Colouring of cane toads on the upper surface may be brown, olive-brown or reddish-brown with the underneath surface varying from white to yellow with mottled brown (DPIF 2007f). The surface of the skin is warty (DPIF 2007f)

Distribution: Cane toads currently inhabit at least four of the mainland Australian states including Queensland and generally occur wherever there is water (DPIF 2007f)

Source: (DPIF 2008d)



Impact: Cane toads produce highly toxic venom from glands in its skin that can cause death if ingested by domestic and most native animals. The Cane toad consumes a wide variety of insects, frogs, small reptiles, mammals and birds. They also compete with native frogs for breeding habitat (DPIF 2007f)

Management Requirements: It is recommended that Cane toads be managed in order to reduce their abundance across the Project Area, particularly where water and native frogs are found

Control Actions: Fencing is recommended to keep toads out of ponds intended for native fish and frogs, with a height of 50 cm being sufficient (DPIF 2007f). Freezing is considered a humane form of disposal, as a reaction to the cold causes the animal to initiate dormancy and dies while senseless (DPIF 2007f)

Monitoring Process: Report all sightings and relative abundance in the weekly Environmental Report

Species Name: *Oryctolagus cuniculus* (European rabbit)

Status: Class 2 pest (LP Act)

Description: They are usually grey-brown with a pale belly, black or ginger can also be common, with long hind legs, short front legs, long ears and large eyes (DPIF 2007b). Rabbits usually weigh between 1.3-2.3 kg

Distribution: Rabbits occur across Australia and have spread throughout Queensland with the largest populations found in the granite belt, south-western Darling Downs, Maranoa, southern Warrego and the far south-west (DPIF 2007b). Moderate populations are located in the north-western Darling Downs and North Burnett and low populations in the remainder of the state (DPIF 2007b)

Impact: Rabbits compete with native wildlife for food and shelter and increase the exposure of native wildlife to the dangers of predators such as cats and foxes (DPIF 2007b). Rabbits are implicated in the local extinction of some native species, as well as many native species, such as the Bilby (now threatened)

Source: (DPIF 2008a)



Management Requirements: The operational objectives for the management of rabbits include reducing their numbers throughout the Project Area

Monitoring: Report all rabbit sightings in the weekly Environmental Report

Control Actions: Fauna exclusion fencing to be utilised where necessary. If required, recommended active control methods include baiting, trapping, ground shooting, warren destruction and/or fumigation and biological control