

Chapter 12

Biosecurity

Oct-2021

Genex Kidston Connection Project - Ministerial Infrastructure Designation Assessment Report

12.0 Biosecurity

12.1 Relevant Legislation and Policies

12.1.1 Commonwealth Government

Australian Pest Animal Strategy 2017-2027

Under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act), a number of introduced animals are recognised as threats to native animals and plants. The impacts of some introduced animals have been listed as ‘key threatening processes’ for the survival of threatened species under this Act.

The Australian Pest Animal Strategy translates higher level policies and strategies into nationally agreed principles, goals and priorities to guide pest animal management. The strategy is achieved through the implementation of State and Territory legislation, nationally significant species action plans, and threat abatement plans.

Nationally significant species action plans provide detailed assessments of risks and impacts of pest animals. They specify priorities, targets, preferred strategies and indicators, and also identify key stakeholder partners.

Threat abatement plans describe the research, management, and any other actions necessary to reduce the impact of a listed key threatening process under the EPBC Act on native species and ecological communities.

Australian Weeds Strategy 2017-2027

The Australian Weeds Strategy provides a national framework for addressing weed issues whilst maintaining the sustainability of Australia’s primary industries and reducing the impact of weeds on the environment.

Thirty-two (32) Weeds of National Significance (WoNS) have been agreed by Australian governments based on an assessment process that prioritised these weeds based on their invasiveness, potential for spread and environmental, social and economic impacts. Consideration was also given to their ability to be successfully managed. A list of 20 WoNS was endorsed in 1999 and a further 12 were added in 2012.

WoNS have individual national strategic management plans. These plans define responsibilities and identify strategies and actions to control the weed species. They facilitate coordinated action from all stakeholders at a national level and improve linkages between research and ongoing control.

12.1.2 State Government

Queensland Biosecurity Act 2014

The Queensland *Biosecurity Act 2014* is administered by the Department of Agriculture and Fisheries (DAF). The Act provides management measures to protect agricultural and tourism industries and the environment from pests, diseases and contaminants.

Under the Act, invasive plants and animals are categorised as either a ‘Prohibited Matter’ or a ‘Restricted Matter’ and replace the ‘Declared’ status under the superseded *Land Protection (Pest and Stock Route Management) Act 2002*. Prohibited matter is biosecurity matter that is not found in Queensland, but would have a significant adverse impact on our health, way of life, the economy or the environment if it entered the state. Restricted matter is biosecurity matter found in Queensland and has a significant impact on human health, social amenity, the economy or the environment.

There are 7 categories of restricted matter (Table 12-1). Each category places restrictions on the dealings with the biosecurity matter or requires actions to be taken to minimise the spread and adverse impact of the biosecurity matter. A pest animal or weed may be classified under multiple categories.

Table 12-1 Restricted matter categories

Category	Detail
Category 1	Biosecurity Queensland needs to be made aware of this restricted matter to take action to contain and eradicate it. Category 1 restricted matter must be reported to a DAF inspector within 24 hours of becoming aware of its presence.
Category 2	Biosecurity Queensland needs to be aware of this restricted matter to commence appropriate actions to reduce, control or contain the biosecurity matter. This restricted matter must be reported to an inspector or authorised person within 24 hours of you becoming aware of its presence.
Category 3	This restricted matter must not be distributed. This means it must not be given as a gift, sold, traded or released into the environment unless the distribution or disposal is authorised in a regulation or under a permit. Deliberate human distribution or disposal contrary to the legislation is a key source of spread.
Category 4	This restricted matter must not be moved to ensure that it does not spread.
Category 5	This restricted matter must not be possessed. These pests have a high risk of negatively impacting on the environment. This restricted matter may only be kept under a permit of the <i>Biosecurity Act 2014</i> or another Act.
Category 6	This restricted matter must not be fed. Feeding this restricted matter may cause their numbers to increase and negatively impact the economy or the environment. Feeding for the purpose of preparing for or undertaking a control program is exempted.
Category 7	If these noxious fish are in a person's possession, they must kill the restricted matter and dispose of the carcass by burying the whole carcass (no parts removed) in the ground above the high tide water mark or placing it in a waste disposal receptacle.

Under the *Biosecurity Act 2014*, a person who deals with biosecurity matter or a carrier, or carries out an activity, if the person knows or ought reasonably to know that the biosecurity matter, carrier or activity poses or is likely to pose a biosecurity risk have a 'general biosecurity obligation' (GBO). Under the GBO, 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
- prevent or minimise the harmful effects a risk could have, and not do anything that might make any harmful effects worse.

12.1.3 Local Government

The *Biosecurity Act 2014* requires every local government in Queensland to develop a biosecurity plan for invasive biosecurity matter for their area. The local government plans relevant to the Project are:

- Hinchinbrook Shire Council (HSC) Local Government Area Biosecurity Plan (Version date 2/9/2020)
- Charters Towers Regional Council (CTRC) Pest Management Plan 2019 - 2024
- Etheridge Shire Council (ESC) Local Government Pest Management Plan 2011-2015.

These plans prioritise pest management within the LGA based on existing priorities (national and state status), impacts and threats (conservation, water resources, agriculture and community), and capacity to manage the species.

12.2 Existing Environment

12.2.1 Biosecurity zones

A biosecurity zone is a part of Queensland that has legal movement restrictions placed on it to limit the spread of pests and diseases within the state. Queensland has several biosecurity zones for different pests and diseases. The Project area is within three existing biosecurity zones (Figure 12-1):

- Cattle Tick Biosecurity Zone
- Northern Banana Biosecurity Zone
- Sugar Cane Biosecurity Zone 1.

A biosecurity certificate may be required to move risk items originating in the zones above (including machinery and soil) into and around Queensland. A biosecurity certificate can only be issued by an accredited certifier and must be issued before the movement takes place. The biosecurity certificate provides evidence that the risk minimisation requirements have been met for that movement. The Queensland Biosecurity Manual sets out how to treat, inspect, source and/or pack materials that present a biosecurity risk in order to receive a biosecurity certificate.

12.2.2 Non-indigenous flora and fauna

An assessment of flora and fauna within the Project area is provided in Chapter 9 Flora and Chapter 10 Fauna of this EAR. Non-indigenous species within the Project area were identified as part of this assessment, through desktop searches and field surveys, and the methodology has not been reproduced in this chapter.

12.2.2.1 Non-indigenous flora

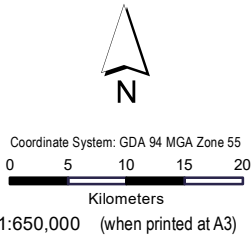
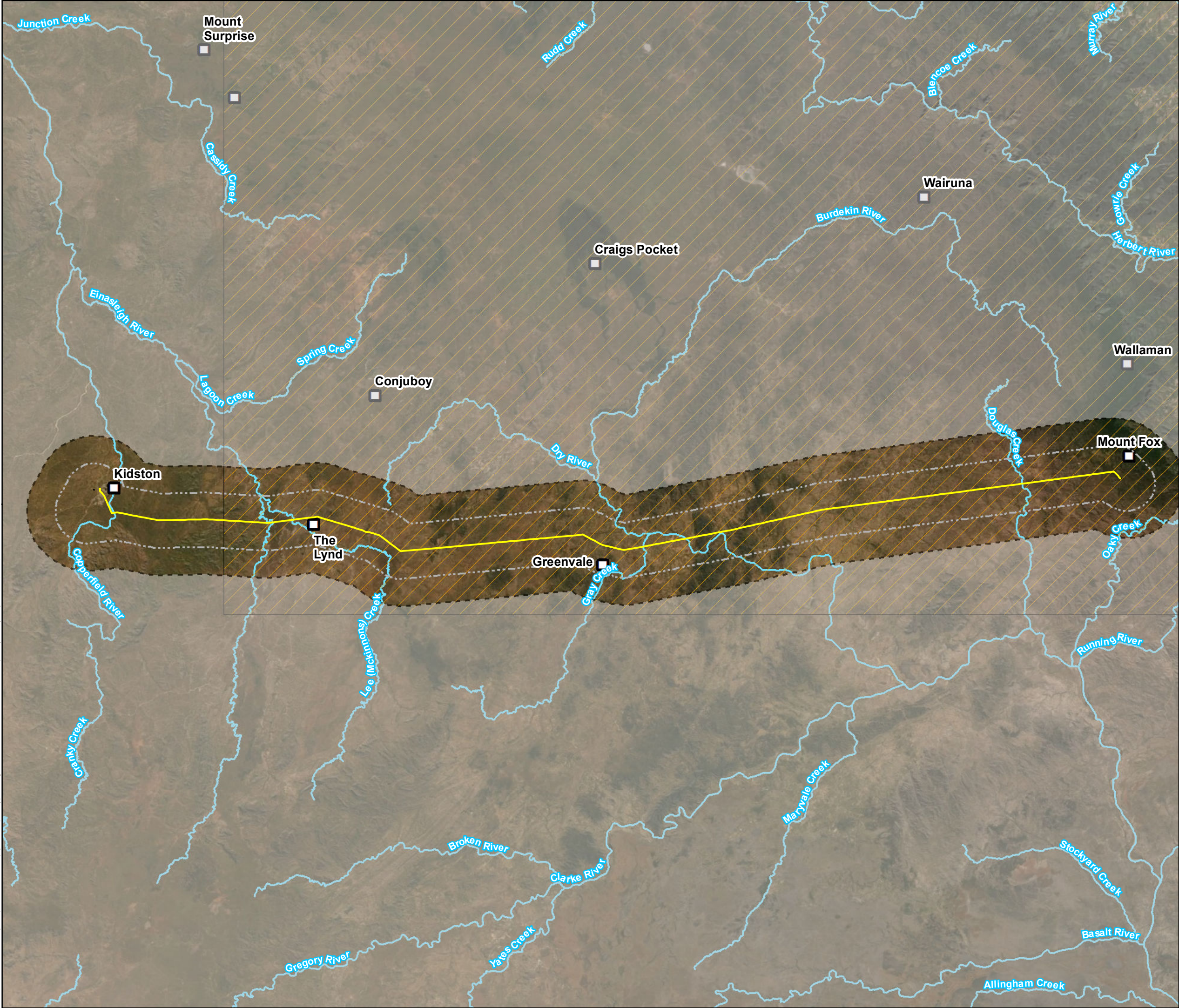
Table 12-2 lists the non-indigenous flora species identified in the Project area during field studies, and their national, state and local status.

Four restricted plants under the *Biosecurity Act 2014* were identified in the Project area (*Parthenium*, *Lantana*, *Rubber Vine* and *Elephant Ear Vine*), of which two are also WoNS (*Parthenium* and *Rubber Vine*). Nine (9) plants are listed as a priority weed within at least one local government biosecurity plan. An annual treatment and community awareness program for *Parthenium hysterophorus* (*Parthenium*) is ongoing in the Mount Fox area.

The remainder of species are considered to be invasive plants. Invasive plants are not 'prohibited' or 'restricted' matter, and all persons are obligated to take all reasonable and practical steps to minimise the risks associated with invasive plants under their control.

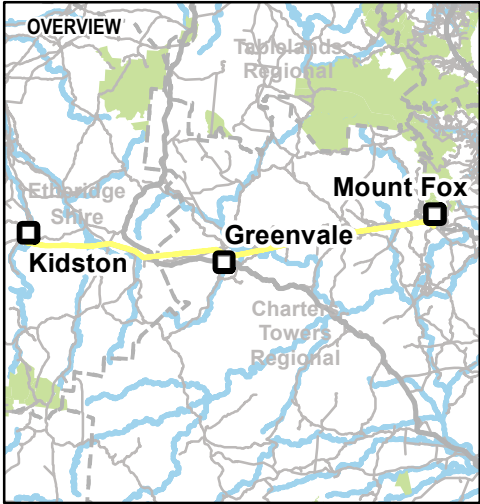
Although not recorded during biodiversity surveys in the Project area, the DSDMIP advised that Siam weed (*Chromolaena odorata*) has recently been seen in the region. Siam weed is a WoNS, a restricted plant (category 3), and is a priority species in the Hinchinbrook and Charters Towers LGAs. A Siam weed project is currently being undertaken by Hinchinbrook Shire Council, with the goal of delimiting all infestations within the shire.

A detailed pre-construction weed survey will be undertaken prior to construction activities commencing (Section 12.4).



- Legend**
- Places
 - Preferred Alignment
 - Watercourses
 - Banana Biosecurity Zone

Note: Cattle Tick and Sugar Cane Biosecurity Zones not shown - covers entire figure area



Data sources:
DCDB, Roads, Watercourses - DNRM 2017
Site Features and Layout - AECOM 2018
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Kidston Connection Project

Biosecurity Zones

PROJECT ID:	60577456	Figure F12-1
CREATED BY:	JB	
LAST MODIFIED:	AJS - 21/10/2021	
VERSION:	3	

Table 12-2 Non-indigenous flora species recorded within the Project area

Scientific Name	Common Name	Status
<i>Parthenium hysterophorus</i>	Parthenium	WoNS Restricted (category 3) Priority species: HSC, CTRC, ESC
<i>Lantana camara</i>	Lantana	Restricted (category 3) Priority species: HSC, CTRC, ESC
<i>Praxelis clematidea</i>	Praxelis	Priority species: ESC
<i>Xanthium occidentale</i>	Noogoora burr	Priority species: ESC
<i>Vachellia farnesiana</i>	Sweet acacia/Mimosa bush	Priority species: ESC
<i>Cryptostegia grandiflora</i>	Rubber vine	WoNS Restricted (category 3) Priority species: CTRC, ESC
<i>Argyreia nervosa</i>	Snake vine or Elephant ear vine	Restricted (category 3) Priority species: CTRC
<i>Calotropis procera</i>	Calotrope	Priority species: CTRC, ESC
<i>Themeda quadrivalvis</i>	Grader grass	Priority species: CTRC, ESC
<i>Bidens pilosa</i>	Cobbler's pegs	-
<i>Stylosanthes humilis</i>	Townsville stylo	-
<i>Stylosanthes scabra</i>	Shrubby stylo	-
<i>Sida acuta</i>	Spinyhead sida	-
<i>Sida cordifolia</i>	Flannel weed	-
<i>Mimosa pudica</i>	Common sensitive plant	-
<i>Argemone ochroleuca</i> <i>subsp. ochroleuca</i>	Mexican poppy	-
<i>Passiflora foetida</i>	Stinking passionflower	-
<i>Passiflora suberosa</i>	Corky passion vine	-
<i>Cenchrus ciliaris</i>	Buffel grass	-
<i>Cynodon dactylon</i>	Green couch	-
<i>Dichanthium aristatum</i>	Angleton grass	-
<i>Megathyrsus maximus</i>	Guinea grass	-
<i>Melinis repens</i>	Red natal grass	-
<i>Urochloa mosambicensis</i>	Sabi grass	-
<i>Urochloa mutica</i>	Para grass	-
<i>Gomphrena celosioides</i>	Gomphrena weed	-
<i>Calotropis gigantea</i>	Calotrope	-

Scientific Name	Common Name	Status
<i>Acanthospermum hispidum</i>	Starburr	-
<i>Emilia sonchifolia</i>	Emilia	-
<i>Tridax procumbens</i>	Tridax daisy	-
<i>Euphorbia hirta</i>	Asthma plant	-
<i>Malvastrum americanum</i>	Spiked malvastrum	-
<i>Vachellia bidwillii</i>	Corkwood wattle	-
<i>Bothriochloa pertusa</i>	Indian bluegrass	-
<i>Eragrostis pilosa</i>	Soft lovegrass	-
<i>Spermacoce latifolia</i>	Buttonweed	-
<i>Chamaecrista absus</i>	Hairy cassia	-
<i>Chamaecrista rotundifolia</i>	Wynn cassia	-

12.2.2.2 Non-indigenous fauna

Table 12-3 lists the non-indigenous fauna species identified in the Project area during field studies, and their national, state and local status.

The field surveys recorded seven introduced fauna species, five of which are restricted under the *Biosecurity Act 2014*.

Three further introduced fauna species identified as likely to occur within the Project area are European fox (*Vulpes vulpes*) (priority pest animal: HSC, CTCR), black rat (*Rattus rattus*), and house mouse (*Mus musculus*). The European fox is also subject to a national threat abatement plan.

Table 12-3 Non-indigenous fauna species recorded within the Project area

Scientific Name	Common Name	Status
<i>Oryctolagus cuniculus</i>	European rabbit	Threat abatement plan Restricted (category 3, 4, 5, 6) Priority: HSC, CTCR, ESC
<i>Felis catus</i>	Feral cat	Threat abatement plan Restricted (category 3, 4, 6) Priority: HSC, CTCR, ESC
<i>Sus scrofa</i>	Feral pig	Threat abatement plan Restricted (category 3, 4, 6) Priority: HSC, CTCR, ESC
<i>Axis axis</i>	Chital deer	Restricted (category 3, 4, 6) Priority: HSC
<i>Canis lupus</i>	Wild dog/dingo	Nationally significant species action plan Restricted (category 3, 4, 6) Priority: HSC, CTCR, ESC
<i>Rhinella marina</i>	Cane toad	Threat abatement plan
<i>Numida meleagris</i>	Helmeted guineafowl	-

12.3 Potential Impacts

12.3.1 Introduction of weeds

The Project will require the movement and transport of machinery, vehicles, plant and equipment. When contaminated with weed material, this movement has the potential to spread restricted matter to weed free locations or areas with minimal infestations. It also has the potential to move pest plant's reproductive material over long distances from the original source.

12.3.2 Edge effects

Where vegetation clearing is required to facilitate the Project, there is the potential for edge effects. Edge effects are zones of changed environmental conditions (e.g. altered light levels, wind speed, temperature) occurring along the edges of habitat fragments. Clearing in remnant, high ecological value areas can promote the growth of different vegetation types (Moenting and Morris, 2006) and allow invasion by introduced species specialising in edge habitats.

In the proposed co-located areas, vegetation has been cleared for the Ergon 132 kV and 66 kV powerlines, and therefore significant increases in edge effects are not anticipated from additional clearing for the proposed 275 kV line. Where a new greenfield alignment has to be established for the powerline (e.g. between Greenvale and Conjuboy where there are no existing Ergon lines), the vegetation is comprised of woodland to open woodland and therefore significant vegetation changes are not likely to occur as a result of the changed environmental conditions.

12.3.3 Habitat degradation through the exacerbation or introduction of pests and weeds

A number of non-indigenous fauna were recorded during the field program (Section 12.2.2.2). These species are likely to be widespread within the Project area. As such, it is unlikely that the proposed works will result in further introductions of feral vertebrate species. However, habitat modification may change their movement through the Project area.

Fauna habitat may also be degraded by the introduction or exacerbation of weeds (Section 12.3.1).

12.4 Mitigation and Management Measures

Biosecurity will be managed in accordance with Powerlink's Environmental Management Plan (Appendix B Environmental Management Plan).

A detailed pre-construction weed survey will be undertaken prior to construction activities commencing and a post-construction weed survey will be undertaken after the first wet season once construction is finalised. The surveys will occur along the final alignment and associated access tracks and will, where present, identify WoNS, restricted and invasive matters and regionally declared weed species.

A Biosecurity Management Plan will be developed to support construction and operation of the Project and to achieve Powerlink's general biosecurity obligation under the *Biosecurity Act 2014*. The Biosecurity Management Plan will include the following.

- Alignment with key national, state and local biosecurity priorities.
- Clean down protocols, including accepted methodology for any vehicles, plant, equipment or machinery entering site.
- Nominated permanent and temporary clean down locations established for construction work within or in the vicinity of the Project area.
- Known WoNS, Restricted, Invasive or Regionally Declared weeds identified in the Project area.
- Identification of the origin of high risk construction materials, machinery and equipment and treatment where required to mitigate introduction of weed species.
- Any imported material and equipment from outside of Australia must refer to the Biosecurity Import Conditions System and comply with import conditions.
- Management methods to control spread of weeds considered to be Restricted Matters in keeping with regional management practice or Queensland Department of Agriculture and Fisheries pest control prescriptions.

- Promotion of awareness of weed management, by inclusion of weed issues, pictures and procedures into the Project's site induction program.
- Collaboration with Landholders on any existing property specific integrated pest management or biosecurity management plans.
- Routine weed monitoring during construction and operation to identify any new incidence of weeds.