



PEMBROKE

Olive Downs Coking Coal Project

Additional Information to the
Environmental Impact Statement

Section 12

**Fauna Species
Management Plan**

12 FAUNA SPECIES MANAGEMENT PLAN

1. *Provide an outline of the information that would be included as part of the project's Fauna Species Management Plan, including:*

The sections below provide an outline of the information that is to be included as part of the Project's Fauna Species Management Plan (FSMP), once prepared.

a) Purpose and scope of the plan

The purpose of the FSMP would be to reduce impacts on native fauna during the construction and operation of the Project. The FSMP aims to address the requirements of the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) and the Queensland *Nature Conservation Act 1992*, and supporting regulations, as relevant to the protection of wildlife and wildlife habitat in the Project area. The scope of the FSMP includes:

- identifying the potential impacts to fauna species and fauna groups as a result of the construction and operation of the Project;
- providing measures on how to avoid or minimise potential impacts to fauna associated with the construction and operation of the Project;
- identifying conservation significant species known or potentially occurring within the Project area;
- identifying broad fauna groups known to occur within the Project site, and suggests how interactions with these fauna groups will be managed;
- identifying Pembroke's commitments relating to fauna management; and
- describing how Pembroke will satisfy the requirements of section 322 of the *Nature Conservation (Wildlife Management) Regulation 2006* relating to tampering with animal breeding places.

b) Roles and responsibilities under the plan

Implementation of the measures outlined in the FSMP will be the responsibility of the following Pembroke personnel:

- Project Manager – roles would include (but not be limited to) attaining all relevant permits, approvals and/or notifications pertaining to vegetation clearing and associated activities for the Project;
- Site Senior Executive – roles would include (but not be limited to) maintaining an acceptable level of risk to persons from operations is at an acceptable level, train workers so that they are competent to perform their duties;
- On-site Environmental Representative – roles would include (but not be limited to) on-ground implementation of the FSMP, including engaging relevant 'suitably qualified and experienced persons';
- Site Supervisor – roles would include (but not be limited to) confirming pre-clearing, clearing and construction activities are undertaken in accordance with the FSMP; and
- Suitably Qualified and Experienced Person – roles would include (but not be limited to) undertaking pre-clear surveys and inspections.

c) Legislative requirements

The following legislation is considered to be relevant to the successful implementation of the FSMP:

- *Environment Protection and Biodiversity Conservation Act, 1999;*
- *Environmental Protection Act, 1994;*
- *Nature Conservation Act, 1992;*
- *Nature Conservation (Wildlife Management) Regulation, 2006;*
- *Fisheries Act, 1994;*
- *Biosecurity Act, 2014;* and
- *Animal Care and Protection Act, 2001.*

d) A description of the fauna species covered by the plan

The FSMP would provide individual management actions for each of the conservation significant fauna species known to occur within the Project area, including

- Ornamental Snake (State and Commonwealth listed);
- Common Death Adder (State listed);
- Australian Painted Snipe (State and Commonwealth listed);
- Squatter Pigeon (southern) (State and Commonwealth listed);
- Koala (State and Commonwealth listed); and
- Greater Glider (State and Commonwealth listed).

e) Information to be included which describes impacts on the relevant fauna

The FSMP would detail the potential impacts to native fauna associated with construction and operation of the Project (consistent with the description in Sections 3 and 4.1 of the draft EIS). This includes a description of the following potential impacts:

- fauna habitat clearance;
- vehicle strike;
- hydrological changes (i.e. surface water quality and quantity);
- reduction in connectivity;
- noise;
- artificial lighting; and
- cumulative impacts.

f) Relationships with other plans and strategies (for example, the Biodiversity Offset Strategy)

The FSMP is related to other plans/strategies being prepared for the Project, including:

- Biodiversity Offset Strategy;
- Weed and Pest Management Plan; and
- Water related Management Plans (including the Groundwater Dependant Ecosystems and Wetlands Monitoring Program, Underground Water Impact Report and Receiving Environment Monitoring Program).

Biodiversity Offset Strategy

The BOS provides detailed information about Stage 1 of the Project's Offset Strategy. Pembroke proposes to implement the following management measures within the Stage 1 Offset Area, once established to improve ecological condition and reduce threats:

- managing natural regeneration of regrowth vegetation (medium to long term);
- feral animal control to reduce habitat degradation (particularly by Feral Pigs) (short to medium term);
- weed control to reduce weed cover, avoid introduction of any new weed species (reducing indirect threats that affect habitat quality) and reduces competition with native species regeneration (short to medium term);
- addition of species-specific Greater Glider nest boxes (to improve sheltering habitat) (medium to long term);
- removal of barbed wire fencing (short to medium term);
- implementation of controlled livestock grazing regimes to encourage natural regeneration of native vegetation and prevent further degradation of habitat whilst assisting to reduce fuel load (short to medium term); and
- fuel management to avoid high intensity bushfires (short to medium term).

Weed and Pest Management Plan

The Weed and Pest Management Plan for the Project details the weed prevention techniques to be implemented in the Project area, including:

- clearing of vegetation to be restricted to the minimum required to enable the safe construction, operation and maintenance of the Project, including infrastructure corridors;
- identification of weed infestations and prioritisation of areas requiring weed treatment;
- strategies for preventing weed spread (i.e. machinery wash-down, boot scrubbing facilities, disposal of weed material);
- conducting rehabilitation activities for disused areas of the mine, as soon as possible;
- maintaining a clean, rubbish-free environment to discourage feral animals;
- restriction of fauna access to any waste storage facilities associated with the Project; and
- engagement of appropriately qualified persons to undertake bi-annual pest animal monitoring in the Project area (e.g. baiting and trapping).

Water-Related Management Plans

The Water Management Plan (including the Groundwater Dependant Ecosystems and Wetlands Monitoring Program), Underground Water Impact Report, and Receiving Environment Monitoring Program provide measures to manage water resources on-site, including measures to control erosion and minimise impacts on aquatic ecology.

g) The proposed management strategy for each species or species group

As outlined in response to Item 1(d), the FSMP would describe the proposed management strategies for each native fauna species or species groups known, or likely, to occur within the Project area. Examples for each relevant conservation significant species are provided below.

Ornamental Snake

The following measures would be undertaken by Pembroke to minimise potential adverse impacts on important habitat for the Ornamental Snake:

- Vegetation clearance procedures outlined in Table 7-6. This includes progressive vegetation clearing, demarcation of habitats proposed to be cleared, the implementation of pre-clearance surveys and the use of a qualified fauna spotter catcher.
- Implementation of a Weed and Pest Management Plan to monitor and control feral animals (including feral pigs which can degrade important habitat for the Ornamental Snake [DEE, 2019]).
- Bushfire prevention would be undertaken, noting that the important habitat for the Ornamental Snake occurs in Brigalow Woodland and this species uses groundcover which is susceptible to fire (DEE, 2019).

A National or State recovery plan has not been prepared for this species. The above measures are predicted to be effective in minimising potential adverse impacts from the Project on the important and dispersal habitat for the Ornamental Snake because they are focused on addressing the recognised threats to the species and they are consistent with the relevant threat abatement actions (e.g. avoiding additional habitat loss and minimising the risk of invasive and predatory species) (DEE, 2018a).

Australian Painted Snipe

The following measures would be undertaken by Pembroke to minimise potential adverse impacts on breeding/foraging habitat for the Australian Painted Snipe:

- Vegetation clearance procedures outlined in Table 7-6. This includes progressive vegetation clearing, demarcation of habitats proposed to be cleared, the implementation of pre-clearance surveys and the use of a qualified fauna spotter catcher.
- Implementation of a Weed and Pest Management Plan to monitor and control feral animals (including foxes and feral cats which are known threats to the Australian Painted Snipe) within the breeding/foraging habitat identified.

The above measures are predicted to be effective in minimising potential adverse impacts from the Project on potential foraging habitat for the Australian Painted Snipe because they are focused on addressing the recognised threats to the species identified in the *Approved Conservation Advice for Rostratula australis Australian Painted Snipe* (DSEWPC, 2013) and are consistent with the relevant threat abatement actions (e.g. avoiding additional habitat loss and controlling feral animals) (after DotE, 2014b).

Squatter Pigeon (southern)

The following measures would be undertaken by Pembroke to minimise potential adverse impacts on the breeding, foraging and dispersal habitat for the Squatter Pigeon (southern):

- Vegetation clearance procedures outlined in Table 7-6. This includes progressive vegetation clearing, demarcation of habitats proposed to be cleared, the implementation of pre-clearance surveys and the use of a qualified fauna spotter catcher.
- A Weed and Pest Management Plan would be implemented to monitor and control feral animals (such as the European Rabbit, Feral Cat and European Red Fox which are known threats to the Squatter Pigeon [southern]) in the breeding, foraging and dispersal habitat for this species.

The above measures are predicted to be effective in minimising potential adverse impacts from the Project on the breeding, foraging and dispersal habitat for the Squatter Pigeon (southern) because they are focused on addressing the recognised threats to the species and are consistent with the relevant threat abatement actions (e.g. avoiding additional habitat loss and controlling predators and herbivores) (DEE, 2018a). A National or State recovery plan has not been prepared for this species.

Koala

The following measures would be undertaken by Pembroke to minimise potential adverse impacts on critical habitat for the Koala:

- Impact avoidance measures outlined in Table 7-6 of the Additional Information to the EIS (including minimising potential impacts to the riparian corridor associated with the Isaac River).
- Vegetation clearance procedures outlined in Table 7-6. This includes progressive vegetation clearing, demarcation of habitats proposed to be cleared, the implementation of pre-clearance surveys and the use of a qualified fauna spotter catcher.
- Implementation of fauna crossings to ensure safe fauna movement across haul roads (between areas of critical habitat).
- A Weed and Pest Management Plan would be implemented to monitor and control feral animals (such as the feral dog which is a known threat to the Koala) in the critical habitat for the Koala.

The above measures are predicted to be effective in minimising potential adverse impacts from the Project on critical habitat for the Koala because they are focused on addressing the recognised threats to the species and are consistent with the relevant threat abatement actions (e.g. avoiding additional habitat loss and controlling predators) (DEE, 2018a). A National or State recovery plan has not been prepared for this species.

Greater Glider

The following measures would be undertaken by Pembroke to minimise potential adverse impacts on habitat for the Greater Glider:

- Impact avoidance measures outlined in Table 7-6 of the Additional Information to the EIS (including minimising potential impacts to the riparian corridor associated with the Isaac River).
- Vegetation clearance procedures outlined in Table 7-6. This includes progressive vegetation clearing, demarcation of habitats proposed to be cleared, the implementation of pre-clearance surveys and the use of a qualified fauna spotter catcher.
- Implementation of fauna crossings to ensure safe fauna movement across haul roads (between patches of Greater Glider habitat).

- A Weed and Pest Management Plan would be implemented to monitor and control pests and feral animals in Greater Glider habitat.

The above measures are predicted to be effective in minimising potential adverse impacts from the Project on habitat for the Greater Glider because they are focused on addressing the recognised threats to the species and are consistent with the relevant threat abatement actions (e.g. avoiding additional habitat loss and controlling predators) (DEE, 2018a). A National or State recovery plan has not been prepared for this species.

h) How the plan will be evaluated and reviewed.

The effectiveness of the FSMP will be evaluated via independent and internal audits to formally assess the level of compliance with the FSMP. Audit outcomes will be used to develop corrective actions which may include changes to the measures outlined in the FSMP.

In addition, the effectiveness of the FSMP will be evaluated through the implementation of:

- monitoring and recording of fauna mortality recorded during pre-clearance surveys;
- ongoing monitoring surveys of fauna species usage of the riparian vegetation and wetlands in accordance with the Groundwater Dependant Ecosystems and Wetland Monitoring Program;
- ongoing monitoring of weed and pest control measures undertaken in accordance with the Weed and Pest Management Plan; and
- ongoing monitoring surveys of fauna species usage of remaining habitat within the Project area.

The FSMP will be reviewed if any of the following occur:

- any modification to the conditions within the Environmental Authority or EPBC Act Approval;
- upon the direction of the Commonwealth Minister; or
- any changes in legislative requirements.