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Approval for Issue

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<td>Susan Lodge</td>
<td></td>
<td>20/11/2015</td>
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Declaration of Accuracy

In the making of this declaration, I am aware that section 491 of the Environment Protection and Biodiversity Conservation Act 1999 (Cth) (EPBC Act) makes it an offence in certain circumstances to knowingly provide false or misleading information or documents to specified persons who are known to be performing a duty or carrying out a function under the EPBC Act or the Environment Protection and Biodiversity Conservation Regulations 2000 (Cth). The offence is punishable on conviction by imprisonment or a fine, or both. I am authorised to bind the approval holder to this declaration and that I have no knowledge of that authorisation being revoked at the time of making this declaration.

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<th>EPBC Act File #</th>
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<tr>
<td>Project Name</td>
<td>Bruce Highway Upgrade, Caloundra Road to Sunshine Motorway, Queensland.</td>
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<tr>
<td>Proposed action</td>
<td>To upgrade a 7 km section of the Bruce Highway between Caloundra Road and the Sunshine Motorway, Queensland. Relevant controlling provisions: * Listed threatened species and communities (sections 18 &amp; 18A).</td>
</tr>
<tr>
<td>Location of action</td>
<td>15 km west of Caloundra and 10 km southwest of Mooloolaba, Sunshine Coast Regional Council local government area. Refer Figure 1.</td>
</tr>
<tr>
<td>Organisation</td>
<td>Queensland Department of Transport and Main Roads.</td>
</tr>
<tr>
<td>ABN</td>
<td>39 407 690 291</td>
</tr>
<tr>
<td>Full Name</td>
<td>Stephen Mallows (A/District Director)</td>
</tr>
<tr>
<td>Date</td>
<td>23/1/2015</td>
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1.0 Introduction

1.1 Background

The Department of Transport and Main Roads (TMR) proposes to upgrade a 7 km section of the Bruce Highway between Caloundra Road and the Sunshine Motorway at Sippy Downs, Queensland (the Project). The section extends along the Bruce Highway from Chainage 58 km in the south to Chainage 65 km in the north (referred to herein as the project area) (Figure 1).

The Project was referred to the Commonwealth under the Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act). On the 18 May 2015, a delegate for the Minister of the Department of the Environment (DotE) decided that the Project (EPBC Act Reference: 2015/7464) required further assessment under the EPBC Act. The Minister decided that the proposed action would be assessed by the Preliminary Documentation (PD).

This Overarching Environmental Management Plan (OEMP) has been prepared in response to the information requested for the Project. Specifically, this OEMP provides proposed avoidance, management and mitigation measures for actions, which may have impacts on Commonwealth listed threatened species and communities.

This OEMP has been prepared taking in to consideration the Environmental Management Plan Guidelines prepared by DotE (2014b).

1.2 Project Description

The Project, being the upgrade of the Bruce Highway between the Sunshine Motorway and Caloundra Road, will allow the speed limit on this section to be returned to 110 km/h (currently 100 km/h), consistent with that of the 85 km length of Bruce Highway from Caboolture to Cooroy. The speed limit was reduced to 100 km/h due to safety concerns on this section of the highway. The ultimate upgrade will also provide a fully connected western service road, and rationalise ramp access to improve safety on the Bruce Highway.

The Project proposes substantial upgrades to the Bruce Highway and associated interchanges and service roads, and will include:

- New interchanges at the Sunshine Motorway and Caloundra Road;
- Realignment of the Sippy Downs Drive interchange westbound on-ramp to the Bruce Highway, and reconstruction of the Bruce Highway southbound on-ramp to current standards;
- Full upgrade of the Bruce Highway to six lanes between the Sunshine Motorway and Caloundra Road;
- Provision of a western service road between Steve Irwin Way and Tanawha Tourist Drive;
- Closure of the north and south facing ramps from Pignata Road / Frizzo Road interchange at the tourist services precinct, improving safety for through-traffic on the highway. Access to the tourist services precinct is to be provided by the fully connected western service road (as described above);
- Construction of a new underpass at Pignata Road under the Bruce Highway;
- Vegetation clearing within the Beerwah State Forest, the Palmview Regional Park as well as freehold and reserve tenured lands;
- Service relocations; and
- Ancillary works.
The area required for the above listed works to be constructed is referred to as the project area (Figure 1.1).

1.3 Scope of Work

Key objectives of this OEMP are to:

- To support the EPBC Act Referral, and in particular to respond to the PD request provided by DotE;
- To provide evidence of environmentally responsible management during construction and operation of the Project;
- To identify the impact of the Project on the Matters of National Environmental Significance (MNES);
- To outline management strategies to protect the MNES and minimise Project’s impact, where required;
- To provide a framework to assess compliance with relevant statutory requirements; and
- To provide a platform for a consistent approach to environmental management for the life of the Project.
Figure 1.1

Source: Aerial photography Nearmap 2015

Disclaimer: While all reasonable care has been taken to ensure the information contained on this map is up to date and accurate, no guarantee is given that the information portrayed is free from error or omission. Please verify the accuracy of all information prior to use.
2.0 Environmental Management Plan Framework

2.1 Objectives and Key Performance Indicators

2.1.1 Overarching Environmental Management Plan

The primary objective for this OEMP is to provide guidance to avoid and minimise impacts to MNES within and adjacent to the project area, specifically threatened species and communities through the implementation of effective management actions. Additional objectives for the OEMP include:

- Ensuring compliance with environmental legislative requirements; and
- Preventing the potential for environmental harm, and effectively managing environmental incidents.

It is noted that the OEMP provides overarching information on risk and mitigations measures that will be implemented during the different phases of the Project (design, operational and construction phases).

2.1.2 Environmental Management Plan (Construction)

An Environmental Management Plan (Construction) (EMP(C)) will be developed to provide guidance on environmental management for personnel involved in the construction phase of the Project and covers construction of the entire length of the Project.

The EMP(C) will be developed for the construction stage and will reflect the mitigation measures outlined in this OEMP. The EMP(C) will also reflect all of the control strategies and commitments to account for any issues and requirements identified in: the Project’s Scope of Works and Technical Criteria (SWTC); and further planning and approvals processes, including conditions (if any) from Federal, State and Local Government. These requirements will be presented in a concise format that is suitable for use by on-ground personnel.

2.2 Environmental Management Roles and Responsibilities

While general environmental compliance is the responsibility of all site personnel, specific roles and responsibilities for environmental performance and compliance will be allocated to specific positions. Table 2.1 provides an overview of environmental management roles and responsibilities.

<table>
<thead>
<tr>
<th>Position</th>
<th>Role and Responsibility</th>
</tr>
</thead>
</table>
| TMR Project Manager            | The TMR Project Manager is responsible for the oversight of TMR and the Contractor’s compliance with the OEMP, the EMP(C) and the contractor’s responsibility for environmental performance and compliance for the Project.  
TMR Project Manager is also responsible for the TMR’s compliance with the Commonwealth DotE’s approval obtained for the Project. |
| TMR Contract Administrator and Contract Verifier | The TMR Contract Administrator (or equivalent role) and Contract Verifier are responsible for directing and managing activities concerned with the construction contract and assisting with reporting, where appropriate.  
The TMR Contract Administrator also acts as liaison between TMR and contractors. |
| Contractor’s Project Manager   | The Contractor’s Project Manager is responsible for environmental performance and compliance for the Project. Specific responsibilities include:  
- Management of works, employees and contractors;  
- Ensure processes and resourcing in place to incorporate the provisions of the OEMP into the Contractor’s EMP(C) for the Project;  
- Provision of adequate resources to ensure the effective implementation of the EMP(C) on the |
Position | Role and Responsibility
--- | ---
Construction Contractor | The Construction Contractor will be responsible for ensuring that works on site are in accordance with the EMP(C) to ensure environmental performance. Specific responsibilities include:
- Ensure all personnel responsible for implementing the Project’s environmental management requirements are competent on the basis of training, education, and experience;
- Responsible for the allocation of resources to ensure the EMP(C) is implemented;
- Implementation of work practices that reduce the risk of environmental impact; and,
- Advise the Contractor’s Project Manager whenever works are programmed, identification of the type of works and report any compliance actions, as required.

The Contractor’s Project Manager will be responsible for engaging a permitted qualified on-site Environmental Representative to undertake environmental auditing and a permitted spotter-catcher to supervise all clearing activities. These roles will be further outlined in the EMP(C).

However, the On-site Environmental Representative’s role must include:
- Completion of site environmental inspections and audits;
- Development of environmental training;
- Ensuring corrective actions are implemented by liaising with the Project Manager and/or relevant authorities;
- Liaising with the TMR Contract Administrator where necessary to ensure the success of the programme and implement any necessary actions regarding environmental matters; and,
- Undertaking monitoring as required by the OEMP and EMP(C).

2.3 Reporting

2.3.1 Commonwealth Reporting

TMR will be responsible for the provision of an annual compliance report to DotE outlining the Project’s compliance with the OEMP. The annual compliance report will be consistent with the requirements of the Annual Compliance Report Guidelines developed by the DotE (DotE, 2014a) (Section 4.3) and based on information generated by the Contractor in their monthly and quarterly reporting (as outlined below).

2.3.2 Contractual Reporting

The Construction Contractor will be responsible for demonstrating to TMR on a monthly basis their compliance with the EMP(C), which reflects the intentions and requirements of the OEMP and the SWTC.

Reporting requirements the Construction Contractor will undertake for the period of their Contract, to demonstrate compliance will include:
- Monthly environmental and audit reporting;
- Non-compliance, environmental incident and corrective action reporting; and
- Environmental monitoring reporting, including reports outlining permitted spotter-catcher works and wildlife usage of fauna specific culverts and bridge under the Bruce Highway (refer to Section 4.1.2).

Each report (as listed directly above) will include:
- A description of the standard report content;
- The schedule or triggers for preparing a report;
- Who the report is provided to;
- Document control procedures; and
• Reporting commitments outlined in the SWTC and the EMP(C).

2.4 Incident Reporting

Section 320 of the Queensland *Environmental Protection Act 1994* (EP Act) requires that any person who becomes aware of an event that may or has caused environmental harm, reports the event / incident to the relevant authority (Queensland Department of Environment and Heritage Protection). Incident and non-conformance reporting is also a requirement from the EPBC Act Referral.

Where actual or potential environmental harm has taken place, details of the nature and circumstances of the event must be provided to the relevant Administering Authority. Such incidents must be immediately reported to the TMR Contract Administrator and recorded on an Incident Report Form. The Construction Contractor will notify the appropriate external agencies in accordance with the prescribed legislative timeframes.

The Construction Contractor must investigate all environmental incidents within 24 hours of being aware of the incident and any necessary steps implemented to minimise likelihood of recurrence. If required, the OEMP (and subsequent EMP(C)) shall be reviewed and updated in accordance with Section 2.7.

2.5 Environmental Training

The Construction Contractor must ensure all personnel responsible for implementing the Project's environmental management requirements are competent on the basis of training, education, and experience.

Key environmental information, including matters associated with MNES and the site-specific EMP(C), must be communicated to all site personnel. Such information is to be communicated through site inductions and toolbox talks. Matters that will be communicated must include:

• Environmental management requirements for the site;
• Identification of any relevant MNES located within the area of works or field of operation for each individual;
• Mitigation measures required to be implemented for MNES; and
• Incident response procedures.

Training will be provided prior to commencement of any construction activities, and will be updated if task, equipment or procedures have changed, or in response to changes made resulting from environmental incidents.

Records of all training will be maintained and will include:

• The person receiving the training;
• The date the training was received;
• The name of the person conducting the training; and
• A summary of the training received.

2.6 Emergency Contacts and Procedures

The nominated emergency contacts are responsible for managing environmental emergencies associated with the Project. The nominated emergency contacts for the Project have not yet been determined but will be defined at the construction stage and outlined in the EMP(C).
The identified personnel must have the authority to stop and direct works so that they can effectively manage environmental emergencies. The emergency contact is to operate as per the emergency procedure to be defined in the EMP(C).

2.7 Audit and Review

2.7.1 Environmental Auditing

2.7.1.1 Australian Government Auditing

The DotE has the capacity under the Australian Government’s Compliance and Enforcement Policy to undertake compliance auditing. The Contractor’s Project Manager and the Construction Contractor will make the site available and assist with compliance auditing activities under the EPBC Act upon request from DotE.

2.7.1.2 Project Environmental Auditing

Monthly internal compliance audits will be conducted by the Construction Contractor to determine compliance with the EMP(C) and in turn the OEMP. The purpose of internal audits is to ensure:

- The requirements of the EMP(C), including management actions, monitoring, and corrective actions (where required) are being implemented on site; and
- The EMP(C) is relevant, up to date and reflective of the current OEMP.

The outcomes of the monthly internal compliance audits will be documented as a summary report and provided to TMR. The summary report will identify corrective actions, as required, and a timeframe for the completing the corrective action.

Quarterly external environmental audits to be undertaken by an independent auditor. These environmental audits are to be conducted to verify compliance with the OEMP, the SWTC, and the EMP(C). The quarterly environmental audit reports are to be provided to TMR.

2.7.2 Overarching Environmental Management Plan Review

Where management actions outlined in the OEMP require amendment, the OEMP shall be reviewed by TMR. Where an amendment to the OEMP is required, the revised OEMP must be submitted to DotE by TMR for approval.

A suitability review of the OEMP shall be undertaken by TMR, in consultation with the Construction Contractor, annually or on an as needs basis.

If a revised OEMP is approved by DotE during the construction works, the EMP(C) must be updated by the Construction Contractor to reflect amendments in the OEMP.
3.0 Assessment of Environmental Impacts and Risks

3.1 Threats to Matters Protected under the EPBC Act

A detailed assessment of the Project’s impact on Threatened Ecological Communities (TECs) and threatened fauna and flora species was undertaken as part of the EPBC Act Referral and response to the DotE’s further information requested dated 18 May 2015. The assessment identified that the site contains the following MNES:

- Koala (*Phascolarctos cinereus*), species listed as Vulnerable species under the EPBC Act and presence of critical habitat for koala within the Project (confirmed presence);
- Four migratory species including rainbow bee-eater (*Merops ornatus*), spectacled monarch (*Monarcha trivirgatus*), rufous fantail (*Rhipidura rufifrons*) and black-faced monarch (*Monarcha melanopsis*) and suitable habitat within the Project (confirmed presence);
- Wallum sedge frog (*Litoria olongburensis*), species listed as Vulnerable Species under the EPBC Act and giant barred frog (*Mixophyes iteratus*), species listed as Endangered Species under the EPBC Act (likely presence);
- Two threatened flora species within the Project: Queensland nut (*Macadamia integrifolia*), species listed as Vulnerable under the EPBC Act; and, attenuate wattle (*Acacia attenuata*), species listed as Vulnerable under the EPBC Act (confirmed presence); and
- TEC Lowland Rainforest of Subtropical Australia (confirmed presence).

The Project will require the clearing of native vegetation; however, only a small portion of this clearing will have direct impact on the threatened fauna species and TEC, including:

- 19.50 ha of critical koala habitat will required clearing (24.88% of the site’s vegetation);
- 8.37 ha for species such as giant barred frog, rufous fantail and spectacle monarch, black-faced monarch and rainbow bee-eater (10.69% of the site’s vegetation); and
- 7 ha of habitat for the wallum sedge frog (8.93% of the site’s vegetation); and,
- 2.52 ha of Lowland Rainforest of Subtropical Australia TEC.

3.2 Impacts to Matters Protected under the EPBC Act and Associated Risks

3.2.1 Potential Impacts and Risk Assessment

The Project’s potential impact upon MNES was assessed using a risk assessment process. The risk ratings have been determined by identifying the likelihood of an impact occurring prior to control strategies being put in place, and the consequence of an impact taking place.

The likelihood of an impact has been determined based on the following classifications as described by DotE (2014b):

- 1) Rare: May occur in exceptional circumstances;
- 2) Unlikely: Could occur, but is considered unlikely or doubtful;
- 3) Possible: Might occur during the life of the Project;
- 4) Likely: Will probably occur during the life of the Project; and
- 5) Highly likely: Is expected to occur in most circumstances.
The consequences of an impact have been determined based on the following classifications as described by DotE (2014b):

- **1) Minor**: Incident of environmental damage that can be reversed;
- **2) Moderate**: Isolated but substantial instances of environmental damage that could be reversed with intensive efforts;
- **3) High**: Substantial instances of environmental damage that could be reversed with intensive efforts;
- **4) Major**: Major loss of environmental amenity and real danger of it continuing; and
- **5) Critical**: Severe widespread loss of environmental amenity and irrecoverable environmental damage.

Table 3.1 outlines the matrix used for determining the risk of impacts, prior to controls being put in place.

<table>
<thead>
<tr>
<th>Likelihood</th>
<th>1- Minor</th>
<th>2- Moderate</th>
<th>3- High</th>
<th>4- Major</th>
<th>5- Critical</th>
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<td>5- Highly Likely</td>
<td>Medium</td>
<td>High</td>
<td>High</td>
<td>Severe</td>
<td>Severe</td>
</tr>
<tr>
<td>4- Likely</td>
<td>Low</td>
<td>Medium</td>
<td>High</td>
<td>High</td>
<td>Severe</td>
</tr>
<tr>
<td>3- Possible</td>
<td>Low</td>
<td>Medium</td>
<td>Medium</td>
<td>High</td>
<td>Severe</td>
</tr>
<tr>
<td>2- Unlikely</td>
<td>Low</td>
<td>Low</td>
<td>Medium</td>
<td>High</td>
<td>High</td>
</tr>
<tr>
<td>1- Rare</td>
<td>Low</td>
<td>Low</td>
<td>Low</td>
<td>Medium</td>
<td>High</td>
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</table>

### 3.2.2 Risk Assessment Outcomes

A list of potential Project’s impact on MNES is identified as part of the Preliminary Documentation (PD). Table 3.2 provides the outcomes of the risk assessment for each of the potential impacts identified as part of the EPBC Act Referral. For each impact, control strategies have been developed that aim to reduce each impact to a low risk rating following the implementation of management actions (Section 4).

<table>
<thead>
<tr>
<th>Potential Impacts</th>
<th>Prediction of Impact</th>
<th>Risk</th>
</tr>
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<tbody>
<tr>
<td>Habitat loss</td>
<td>Reduced ecological connectivity of the natural habitat of the area.</td>
<td>Likelihood (3) x Consequences (4) = High</td>
</tr>
<tr>
<td></td>
<td>Negative impacts predicted to occur at the edge of cleared vegetation.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Reduced habitat for threatened fauna species.</td>
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</tr>
<tr>
<td></td>
<td>Clearing of threatened flora species and TEC.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Clearing activities encroaching on areas to be retained, and/or beyond the defined project area.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Increased edge effects.</td>
<td></td>
</tr>
<tr>
<td>Soil disturbance around Mooloolah River and Sippy Creek</td>
<td>Reduced quality / integrity of TEC.</td>
<td>Likelihood (3) x Consequences (4) = High</td>
</tr>
<tr>
<td></td>
<td>Downstream impacts (sedimentation / contamination) on ecological communities as a result of waterway degradation.</td>
<td></td>
</tr>
<tr>
<td>Threatened fauna species mortality</td>
<td>Increased vehicle fauna strikes.</td>
<td>Likelihood (3) x Consequences (4) = High</td>
</tr>
<tr>
<td></td>
<td>Fauna injury and deaths during vegetation clearing activities.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Fauna entrapment during construction.</td>
<td></td>
</tr>
<tr>
<td>Habitat degradation</td>
<td>Clearing of threatened flora species and TEC.</td>
<td>Likelihood (3) x Consequences (4) = High</td>
</tr>
<tr>
<td></td>
<td>Clearing activities encroaching on areas to be retained (i.e. fauna</td>
<td></td>
</tr>
</tbody>
</table>
Potential Impacts (including biotic and abiotic factors) | Prediction of Impact | Risk
--- | --- | ---
- Changes to vegetation structure and species composition.
- Increased edge effects, including:
  - Release of contaminants and wastes (for example via fuel/chemical spills, disturbance/transport of contaminated soils, rubbish dumping) to land / water sources supporting threatened flora and fauna species and TEC.
  - Increased air and noise emissions, causing health and behavioural changes in koalas (and other threatened fauna species).
  - Increased light spill on threatened species habitat resulting in changes to diurnal and nocturnal behavioural patterns in some threatened fauna groups.
= High

| Establishment of pest species | Introduction / increased incidence of weeds and/or pest species, reducing habitat and TECs quality via changes.  
| Weed spread from vehicle and equipment movement / operation.  
| Increased predator incursion owing to increased edge-area ratio.  
| Depending on the nature of the introduced species, the impact can be unpredictable and potentially difficult to reverse if left unmanaged. | Likelihood (3) x Consequences (3) = Medium |
4.0 Environmental Management Strategies

4.1 Mitigations Measures

The following sections provide management measures, actions and controls to be implemented to minimise the Project's impacts on MNES.

The following performance criteria are to be achieved when managing risk to TEC and threatened fauna:

- Minimise loss of habitat by protecting threatened species habitat where possible, by maintaining connectivity between suitable habitat for threatened species, such as the Koala, and by providing vegetation offsets to compensate the loss of TEC and koala habitat;
- Minimise injury or mortality of threatened fauna species by managing habitat clearing, supervising clearing activities, and providing suitable connectivity for fauna movement across the landscape; and
- Minimise habitat degradation by maintaining hydrology, reducing weed infestation, and managing waste and water quality.

Specific mitigation strategies for impacts upon TEC, threatened flora and fauna species are outlined in Sections 4.1.1-4.1.3. Best practice environmental and construction management measures will be implemented so as to mitigate any potential impacts on MNES within and surrounding the project area.

4.1.1 Development of Sub-plans

A series of sub-plans for issues relevant to MNES must be developed at the design phase and actions from these plans must be included in the EMP(C). One sub-plan has being developed by Ecosure (Species Management Plan) and is currently being assessed by the Queensland Government for approval. The following sub-plans must be developed at the design phase and implemented throughout the construction and operational phases of the Project:

- Vegetation management / tree clearing strategy. This plan must provide quantifiable goals and strategies to help to conserve specific Project elements including the ecological processes operating on the Project, where these processes have been or are likely to be affected by construction or land modification activities. Some of the key strategies must include selective planting along the entrance of culvert and bridge, which will stabilise currently cleared and eroding areas as well as provide habitat for threatened amphibian species. Other strategies must consist of the management of operational and construction impacts such as the retention of large hollow-bearing trees using distinct tree demarcation; the re-location of structural elements such as hollow logs and tree trunk for koala resting poles to areas of revegetation including the bridge. Details of the strategies are provided in Section 4.1.2 and 4.1.3.

- Species Management Plan, including animal breeding places. This plan was developed by Ecosure (2015). The plan provides the required mitigation measures before, during and after construction work. Examples of requirements must include the presence of a permitted spotter-catcher during clearing and grubbing activities to reduce fauna injuries and fatalities, installation of nesting boxes to replace lost hollow-bearing trees, earthworks affecting the main tributary to be undertaken from February to July, where possible, to avoid rainbow bee-eater nesting season.

- Fauna Management Plan. This plan must provide details of all proposed fauna movement infrastructure within the project area. The plan must incorporate fauna sensitive road design (e.g. culvert at Sippy Creek and bridge at Mooloolah River) as per Fauna Sensitive Road Design Volume 2 developed by Transport and Main Roads (TMR, 2010). Furniture providing the safe movement of koala through the culverts must also be included in the plan as per detailed in the Koala Population and Habitat report (RPS, 2015a).
Pest and Weed Management Plan. This plan must define specific actions to reduce spread of invasive fauna species, minimise the erosion along the waterway corridor bank and increase the chance of planting success as part of the rehabilitation of the entrance along the culvert.

Erosion and Sediment Control Management Plan must minimise impact of earthworks on watercourses.

Water Management Plan. This plan must include detailed procedures to minimise the risk that the quantity of water available to habitat critical to the survival of the koala will not be significantly outside the range of natural variation.

Offset Management Strategy. This plan must be prepared to meet the requirement of the EPBC referral and proposed offset for TEC and Koala habitat as described in the Threatened Ecological Community Impact Assessment (Lowland Rainforest of Subtropical Australia) report (RPS, 2015c) and the Koala Population and Habitat Analysis report (RPS, 2015a). This plan must provide details of monitoring program to ensure the effectiveness of the offset in providing either koala habitat or compensating the loss of TEC.

Each sub-plan must include details of monitoring programs to observe and report on the performance of proposed mitigation and management measures, with a focus on facilitating early intervention and remediation of any identified non-conformances. The following monitoring and reporting requirements will enable the adoption of an adaptive management approach for not only common species but also EPBC Act-listed species including koala that are known or potential utilise the habitats of the project area:

- Monitor areas of clearing prior, during and post clearing to ensure that boundaries are demarcated and that clearing activities are confined to the demarcated boundaries;
- Monitor the effectiveness of weed management activities;
- Monitor the effectiveness of fauna management activities and infrastructure (e.g. culvert, dry passage, bridge, etc.) to identify movement in koala activity (abundance, home range and movements) in response to construction of the highway and Assess the effectiveness of wildlife habitat connectivity mitigation measures (i.e. fauna underpasses and exclusion fencing);
- Monitor the effectiveness erosion and sediment control devices;
- Monitoring water quality in proximity of the Project to ensure compliance with the regulation and protect habitat for threatened amphibians; and
- Monitor the success of rehabilitation works within and outside the Project including within the proposed offset areas.

### 4.1.2 Vegetation and Weed Management Strategy

Table 4.1 outlines the procedure to manage vegetation and weed during the Project’s construction. The main objectives to the Vegetation and Weed management strategy are to avoid and/or minimise the damage to threatened vegetation and habitat that support threatened fauna species to be retained on the site.

<table>
<thead>
<tr>
<th>Element</th>
<th>Vegetation and Weed Management</th>
</tr>
</thead>
<tbody>
<tr>
<td>Control Measures</td>
<td>Design Phase</td>
</tr>
<tr>
<td></td>
<td>Development of a road design which minimises the impact on native vegetation and waterways within the project area, wherever practicable.</td>
</tr>
<tr>
<td></td>
<td>The preparation and implementation of a Vegetation Management Plan (VMP) which will outline procedure to be implemented prior to, during and following the vegetation clearing. The VMP will outlines details of vegetation to be removed and retained and ensure that the interface areas where vegetation is to be retained are managed in accordance with relevant standards.</td>
</tr>
<tr>
<td></td>
<td>Collection of seeds from and translocation of the identified Acacia attenuata, where methods...</td>
</tr>
</tbody>
</table>
Element | Vegetation and Weed Management
--- | ---

The VMP will directly address procedures to minimise indirect impacts to surrounding Lowland Rainforest areas, especially within the 50 m buffer zone surrounding the potential impacts area.

**Construction Phase**

*Vegetation to be Retained*

- Impact by construction works on vegetation must be restricted to the project area required for the construction and operation of the final design.
- Clearly mark out the extent of vegetation clearing to ensure that construction machinery does not enter the protected area or sensitive areas adjacent or within the project area.
- Progressive rehabilitation along the highway to occur in order to minimise the total land area disturbed by the Project at any time. Management measures must also include rehabilitation activities to enhance riparian vegetation within the project area, where disturbance occurred along the Mooloolah River and Sippy Creek, as well of retained vegetation/habitat known or likely to support threatened amphibian species and migratory species (refer to Preliminary Documentation report (RPS, 2015b)). The aim of these activities will be to increase the buffering functions of the existing riparian zone by revegetating the top of bank and controlling weeds within the understorey within the riparian vegetation and retained fauna habitat. Where disturbance occurs along the waterway(s), the area will be re-shaped, topsoiled using previously stockpiled material (free of weeds) and revegetated outside infrastructure requirements. The existing environmental values of the project area will be utilised in determining the vegetation rehabilitation design parameters and species and areas most appropriate to be rehabilitated.
- Management of potential operational and construction impacts including the retention and rehabilitation of native vegetation in defined areas especially with the entrance and exit of culverts and bridges to facilitate movement of MNES species such as a koala.
- Stockpile areas must be located at least 50 m from the top of the bank (point on a waterways bank when it is considered to be full and when the waterway is considered to be in flood) of any waterway to prevent any potential for contamination, erosion and bank collapse.

*Vegetation Clearance*

- Vegetation clearing must be staged over the life of the Project and disturbed areas will be progressively rehabilitated / landscaped.
- Clearing must be restricted to areas required for construction purposes with plans and areas on site to be clearly marked with the limits of disturbance.
- Cleared native trees and vegetation must be mulched or chipped as soon as practical after felling to ensure fauna do no inhabit stockpiles. Mulched or chipped timber is to be used in landscaping activities, where practicable and appropriate after considering salvageable timber, fauna habitat and cultural material.
- Tree hollows are to be retained in situ wherever possible. If not possible, tree hollows with an entrance diameter of greater than 250 mm are to be cut out of the cleared tree and relocated. Details of the relocation of the tree hollow must be provided in the VMP and can be found in the Koala Population and Habitat Analysis Report (RPS, 2015a).
- Limit bare earth exposure to that essential to the efficient and effective construction of the asset with implementation of appropriate erosion and sediment control as per the International Erosion Control Association Guidelines.
- Program and undertake final rehabilitation and/or landscape works early.

*Weed Management*

- Ongoing weed management is to be implemented throughout the Project construction phase.
- Rehabilitation is to occur as soon as practical following disturbance to minimise weed incursion.
- Rock, topsoil and subsoil should be stockpiled separately in designated stockpile areas. Weed hygiene and erosion control must be maintained for soil stockpiles.
- Implementation of the weed hygiene protocols, which include the following:
  - Prior to entering site, all vehicles and equipment must be cleaned down to remove soil and plant material to prevent spreading of soil borne diseases and declared plants
  - Footwear must be thoroughly cleaned and disinfected at the commencement of fieldwork.
  - Clean-down facilities on site do not contribute to further machinery contamination. To
Element | Vegetation and Weed Management
--- | ---
- Prevent this, gravel could be used to minimise contact with mud and aid drainage.
- Excessive run-off from wash-down procedures must not occur.
- Clean-down points must be located outside of significant areas (e.g. support MNES species and habitat) to ensure a high standard of machinery hygiene before moving into these areas.
- Routine hygiene procedures must be outlined in the VMP and must allow clean down procedure to be implemented with ease, as contaminants are prevented from building up.
- Ensure machinery is clean of contaminates before coming to the site and before leaving to work at other locations.
- Cover stockpiles (e.g. with shade mesh or a tarp) to protect against contamination and weed infestation.

**Operational Phase**
- Undertake weed monitoring and targeted weed control measures within the disturbance area during the defects and liability phase and in accordance with the Land Protection (Pest and Stock Route Management) Act 2002.

**Monitoring**
- Undertake a weed audit prior to construction commencing to establish a baseline.
- Daily inspection of protected vegetation to ensure barriers are in place and retained vegetation is not damaged.
- Undertake a post-construction weed audit during the defects and maintenance liability period.

**Corrective Action**
- Reinstall barricading of retained vegetation where necessary.
- The Construction Contractor shall alter procedures or apply corrective action after consultation with the TMR Project Manager, as necessary to produce compliance with the performance criteria.

### 4.1.3 Fauna Management Strategy

Table 4.3 outlines the procedure to manage threatened fauna during the Project’s construction. The main objective of the fauna management strategy is to appropriately manage activities within and adjacent to the site to minimise impacts on threatened fauna species.

**Table 4.2: Fauna Management Procedure**

<table>
<thead>
<tr>
<th>Element</th>
<th>Wildlife Management</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Control Measures</strong></td>
<td><strong>Design Phase</strong></td>
</tr>
</tbody>
</table>
- Koala fencing must be provided where there is an identified koala movement corridor as illustrated in the Koala Population and Habitat Report (RPS, 2015a). Fencing must be installed to guide koalas (and other fauna) to the underpass/es at least 100 m on either side of the underpass entrance.
- In areas identified as critical koala habitat in the Koala Population and Habitat Report (RPS, 2015a) a koala valve and a koala escape poles will be designed and constructed on an alternate pattern every 50 metres in association with the fauna exclusion fence locations.
- Fencing design must be in accordance with the TMR Standard Drawing 1603.
- Koala specific fauna passage must be provided at Sippy Creek and Mooloolah River, as indicated in the Koala Population and Habitat Analysis (RPS, 2015).
- Fauna underpasses must provide a dry passage for dedicated fauna crossing, especially Koala. Koala specific fauna passage will be provided at Sippy Creek and Mooloolah River as indicated in the Koala Population and Habitat Analysis (RPS, 2015). Other fauna underpasses can be located in areas where drainage is required but at locations where fauna crossing will benefit
- When designing underpass structures for koalas specifically, the following must be provided:
  - Maximise dry passage via the provision of koala log railings. Durable refuge poles must also be provided outside fauna underpasses, within 4 metres of the ends of the dedicated fauna underpasses. Flood impacts must be assessed in determining the location of refuge poles.
  - Maximise penetration of natural light.
  - Revegetation near fauna underpasses and combined underpasses and bridges must be
Element | Wildlife Management
---|---
 | commenced as soon as practicable after clearing of existing vegetation and within three months of completion of construction of each fauna underpass and combined underpass and/or bridge.
 | - Culvert must be no smaller that 3 m in width and 1.2 m height.
 | - Ensure entrance areas / portals are located contiguous with existing fauna movement corridors or where adjoining habitat or topography comes close to the road on both sides, and away from sources of disturbance (i.e. houses, and dogs).
 | - Provide an unobstructed view of the habitat or horizon on the other side of the underpass;
 | - Culverts must be located and installed so that entrance slopes are not steeper than 3:1 H:V.
 | - Culverts must be located to minimise potential scour requirements and provide natural entrances and ground surface levels.
 | Suggested details design and location for the underpasses for the movement of Koala is also provided in the Koala Population and Habitat Analysis (RPS, 2015a) and must be refined during the detailed design phase.
 | Koala exclusion fencing must be provided, as a minimum, where there is an identified koala movement corridor as illustrated in the Koala Population and Habitat Analysis (RPS, 2015a). Fencing will include 100 m on along the road on either side of the fauna underpasses. Fencing will be installed in areas of critical habitat for koala.

### Construction Phase

#### Pre-clearing

- Site induction must be provided to contractors prior to commencing the work. Induction must include training in the following:
  - Impairment or killing of native fauna may incur penalties.
  - The protection of fauna that have potential to be encountered across the site.
- Only designated and trained personnel are allowed to handle and remove fauna.
- Prior to delivery to site, all equipment and materials are to be deemed free of pests (rodents, toads etc.).
- A pre-clearing survey is to be conducted by a permitted spotter-catcher to identify fauna and habitat features (e.g. tree hollows or logs). Trees identified as having potential fauna values (such as hollows, fissures and exfoliating bark) are to be clearly marked for supervision during felling and inspected once felled.
- Implementation of the hygiene protocols when working in proximity to protect amphibians species and their habitat. Measures must be detailed in the Fauna Management Plan and must include provisions from the Hygiene Protocols for the Control of Diseases in Australian Frogs (Murray et al., 2011). Actions include the following:
  - Prior to entering site, all vehicles and equipment must be cleaned down to remove soil and plant material to prevent spreading of soil borne diseases.
  - Footwear must be thoroughly cleaned and disinfected at the commencement of fieldwork.
  - Clean-down points must be located outside of significant areas (e.g. support MNES species and habitat) to ensure a high standard of machinery hygiene before moving into these areas.
  - Ensure machinery is clean of contaminates before coming to the site and before leaving to work at other locations.
  - Disinfecting solutions should be prevented from entering any water bodies.
  - Hands, arms, knees etc. should be cleaned to remove debris and washed or wiped with a suitable disinfectant. It is preferable to do this before entering the vehicle or moving to another site.
  - Transmission of disease from vehicles is generally unlikely to be a problem. However, if a vehicle is used to traverse a known frog site and could result in mud and water being transferred to other bodies of water or frog sites, then wheels and tyres should be cleaned and disinfected.
  - When collecting sample (e.g. water quality sample), equipment that are used at one site must be cleaned and disinfected before re-use at another site.

#### During vegetation clearing

- Vegetation clearing must be conducted in a staged manner to allow fauna to move off the
Element | Wildlife Management
--- | ---

- **Wildlife Management**

  - Under the Nature Conservation (Koala) Conservation Plan 2006 and Management Program 2006-2016 (EPA, 2006) (Koala Plan), any tree with a koala present must not be felled, damaged or interfered with until the koala has moved from the felling site of its own volition. Only when koalas have vacated a tree can clearance operations occur, including clearing of the host tree and surrounding vegetation.
  - Efforts must be made to determine potentially occupant species by way of investigations for indicative signs (scats, scratchings and tracks). Where no signs are found or occupant species undeterminable, machinery operators are instructed to fell trees in a manner directed at minimising the potential risk of injury to fauna.
  - Limbs are to be inspected and the direction of felling determined with regards to safety of both machinery and operators. Considerations to potentially occupant fauna are to be assessed and felling procedures formulated. Felling procedures will be detailed in the contract document.
  - Salvage any fauna habitat resources from clearing works (e.g. hollow logs, rocks). Such resources are to be stockpiled and reused in areas to be rehabilitated outside of clear zones and place under direction from a landscape specialist and/or qualified ecologist.
  - A permitted spotter-catcher will accompany clearing crews when clearing vegetation in order to ensure disturbance to threatened or other significant fauna is minimised. The permitted spotter-catcher will actively search for and relocate threatened ground fauna and spot larger trees for arboreal species and monitor fauna fleeing the clearing zone to minimise direct mortalities.
  - Any injured fauna are to be immediately transported to a vet or wildlife carer. Works cannot continue unless supervised by the permitted spotter-catcher.
  - If any threatened fauna species are spotted during construction, work must cease in the immediate vicinity of the sighting until they have moved off or a permitted spotter-catcher called in to remove them, if appropriate under legislation or policy. The permitted spotter-catcher must keep records of all wildlife observed, re-located, injured and/or killed during the works.
  - At all times
    - No domestic pets (including dogs, cats) allowed on the site.
    - No refuse left exposed, which will specifically assist breeding opportunities for cane toads, feral cats or house mice on site.
    - Bins containing food waste are to be emptied at the end of each day, with contents removed to a secure bin.
    - All bins and skips must be covered to prevent rubbish from blowing away or rainwater and pests entering the waste receptacle.
    - No feeding of threatened fauna species on site.
    - Where possible, construction activities will be restricted to daylight hours. Some limited stages of the work may require work during non-daylight hours.
    - Restrict vehicles to approved access tracks.
    - Revegetation near fauna underpasses and combined underpasses and bridges must be commenced as soon as practicable after clearing of existing vegetation and no longer than three months of completion of construction of each fauna underpass and combined underpass and/or bridge.

**Operational Phase**

- Fences and wildlife infrastructure will be maintained for the lifetime of the Project.

**Monitoring**

- Daily inspection of retained vegetation and associated barriers by the Construction Contractor to ensure barriers.
- The permitted spotter-catcher shall supervise habitat removal works.
- The majority of fauna mitigation structures must be monitored to assess the movement of koala across the culvert/bridge. This monitoring work must be part of the overall program to ensure the best structures are provided for the movement koala. Details of the koala monitoring program must be provided in the fauna management plan. The monitoring program must include, but not limited to:
  - Monitor areas of clearing prior, during and post clearing to ensure that boundaries are
Element | Wildlife Management
--- | ---
- demarcated and that clearing activities are confined to the demarcated boundaries;
- Monitor the effectiveness of culverts and dry passages; and,
- Monitor the success of rehabilitation works.

Corrective Action
- Reinstate barricading of retained vegetation and temporary barriers preventing koala access to the construction site, where necessary.
- The Construction Contractor shall alter procedures or apply corrective action after consultation with the fauna spotter, as necessary to produce compliance with the performance criteria.

4.1.4 Water, Erosion and Sediment Control Management Strategy

Table 4.4 outlines the procedure to manage water, and erosion and sediment control during the Project’s construction. The objectives of the management strategy are listed below:

- To take all reasonable and practicable measures to minimise the impact on water quality within the Mooloolah River and Sippy Creek, and ensure that construction activities do not adversely affect downstream receiving environments that may support TEC and threatened fauna species;
- To prevent and minimise erosion of disturbed areas and the release of sediment laden waters to the receiving environment including drainage lines and surrounding TEC;
- To maintain water requirements for retained vegetation and fauna habitat; and
- To capture sediment with erosion and sediment control (ESC) measures within the construction areas to minimise impact on threatened species and TEC.

Table 4.3: Water, Erosion and Sediment Control Management Procedure

<table>
<thead>
<tr>
<th>Element</th>
<th>Water Management</th>
</tr>
</thead>
<tbody>
<tr>
<td>Control Measures</td>
<td>Design Phase</td>
</tr>
<tr>
<td></td>
<td>An appropriate water management plan must be developed for the Project, in consultation with TMR, and meet the requirements outlined in Table 9 of the DotE koala guidelines (DotE, 2014c). This plan must include engineering design that must minimise the risk that the quantity of water available to habitat critical to the survival of the koala will not be significantly outside the range of natural variation.</td>
</tr>
<tr>
<td></td>
<td>An Erosion and Sediment Control Plan (ESCP) must be developed in accordance with the SWTC and implemented for the Project. The ESCP must include:</td>
</tr>
<tr>
<td></td>
<td>- Progressive erosion and sediment controls must be implemented to ensure that measures meet the requirement outlined in Table 9 of the DotE koala guidelines (DotE, 2014c).</td>
</tr>
<tr>
<td></td>
<td>- Engineering design and controls are in place to minimise the risk of increasing the height of groundwater where groundwater poses a salinity risk and/or issues relating to acid sulfate soils.</td>
</tr>
<tr>
<td></td>
<td>- Vehicle shake down grids shall be installed at all approved entry points to the site.</td>
</tr>
<tr>
<td></td>
<td>- Measures to divert ‘clean’ surface water drainage away from disturbed areas and stockpiles must be implemented. These must not be constructed in areas of retained vegetation.</td>
</tr>
<tr>
<td></td>
<td>- The sediment basins must be inspected following all rainfall events. Waters contained in the basin must be tested prior to discharge and discharged only when it meets the discharge criteria.</td>
</tr>
<tr>
<td></td>
<td>- All deep, open excavations must have appropriate safety barriers.</td>
</tr>
<tr>
<td></td>
<td>- Where possible, design and construct creek and river crossings to ensure that existing flow regimes are maintained.</td>
</tr>
<tr>
<td></td>
<td>Construction Phase</td>
</tr>
<tr>
<td></td>
<td>Introduce all construction personnel to spill management procedures and use of the spill kit during the site induction.</td>
</tr>
</tbody>
</table>
|  | Erosion and sediment controls must be implemented and maintained in accordance with
### Element | Water Management
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- the requirements of the International Erosion Control Association (IECA) guidelines.
  - Implementation of the ESCP and progressive ESCPs. The ESCP measure must include the following:
    - Immediately clean up material spilt on traffic areas before vehicle movement can disturb it.
    - Use construction water cart to suppress dust during earthworks.
    - Where watering is used, monitor the procedure to ensure that there is no surface ponding/pooling of water in areas outside of sediment or operational water quality basins.
    - Restrict vehicles to approved access tracks and only those vehicles required for the safe, efficient and essential construction activities will be allowed in the work area.
    - Cover all loose loads for transport to and from the work site.
    - Maintain stockpiles, for example stripped topsoil, in a condition which prevents windblown dust generation, especially during dry or windy conditions.
    - Limit bare earth exposure to that essential to the efficient and effective construction of the asset with implementation of appropriate erosion and sediment control as per the International Erosion Control Association Guidelines.
    - Rehabilitate or allow natural regeneration of bare areas as soon as the area is no longer needed for construction.
    - Ensure all equipment complies with appropriate Australian Standards.
  - All hazardous chemicals will be stored and used in line with relevant Australian Standards and containers will not be handled or stored in a manner that may rupture the drum or cause it to leak.
  - All vehicles and machinery containing or carrying hazardous materials are to be equipped with spill kits at all times.
  - Refuelling and maintenance activities are performed in designated bunded areas.
  - All dangerous goods must be stored within a bunded area.
  - Construction water must not be sourced from natural waterways within the project area.
  - All temporary ESC works must be removed when revegetation is established on formerly exposed areas before the end of the contract, unless otherwise directed by the TMR Project Manager.
  - The site is to be kept in a neat and tidy condition at all times through good house-keeping practices so as to promote site safety and minimise pollution. This must include use of waste bins (including recycling bins) and regular waste removal to prevent overfilling of bins, promptly clean up after spills, regular tidy up of the site.

### Monitoring

#### Pre-Construction
- Water quality monitoring must be conducted at least 1 month prior to construction to establish some indication of ambient water quality levels.

#### Construction
- Daily and weekly inspections of sediment and erosion controls must be undertaken during construction to ensure compliance with the IECA guidelines and the SWTC.
- Water quality monitoring must be conducted during the construction period to identify and quantify any impacts on receiving waters.
- A monitoring program must be provided for the life of the action for surface water, with triggers for management intervention and corrective actions. The details of the monitoring program must be provided as part of the Water Management Plan.

### Corrective Action
- ESC devices must be cleared, repaired, repositioned or replaced whenever inspections show signs of non-compliance or ineffective capability or capacity.
- If an extreme rainfall event, or any other unforeseen event, causes sedimentation of drainage lines or protected areas, the rectification of the controls and works must be prioritised.
- The type, position and arrangement of ESCs may be amended to improve performance.
- The Construction Contractor must apply corrective action after consultation with the Environmental Manager, as necessary to produce compliance with the performance criteria.
4.2 Risk Assessment Following the Implementation of Mitigations Measures

The above mentioned strategies provide a series of mitigation measures that will be implemented during all phases of the Project. The mitigations measures have been identified to minimise potential impact on threatened species and community located within or adjacent the project area. The assessment of the potential impact on the MNES after the implementation of mitigations measures is outlined in Table 4.5. This table illustrates that the implementation of the mitigations measures is expected to significantly reduce the potential impacts of the Project on MNES to a reasonable outcome (Low to medium impact).

<table>
<thead>
<tr>
<th>Potential Impacts</th>
<th>Relevant Strategy and Associated Mitigations Measures</th>
<th>Risk Post Mitigation</th>
</tr>
</thead>
</table>
| Habitat loss                               | - Vegetation and Weed Management Strategy  
                                           | - Fauna Management Strategy                                                             | Likelihood (3) x Consequences (2) = Medium |
| Soil disturbance around Mooloolah River and Sippy Creek | - Vegetation and Weed Management Strategy  
                                           | - Water, ESC Management Strategy                                                       | Likelihood (2) x Consequences (3) = Medium |
| Threatened fauna species mortality         | - Fauna Management Strategy                                                              | Likelihood (1) x Consequences (4) = Medium                                             |
| Habitat Degradation                        | - Vegetation and Weed Management Strategy  
                                           | - Fauna Management Strategy                                                             | Likelihood (2) x Consequences (4) = Medium                                             |
| Pest species and species establishment     | - Vegetation and Weed Management Strategy  
                                           | - Fauna Management Strategy                                                             | Likelihood (2) x Consequences (2) = Low                                                |

4.3 EPBC Act Reporting

TMR will be responsible for the provision of an annual compliance report to the DotE outlining the Project’s compliance with the OEMP and the Commonwealth conditions of approval. The annual compliance report will be consistent with the requirements of the Annual Compliance Report Guidelines developed by the DotE (DotE, 2014a) and will include:

- The full wording of all conditions under the EPBC Act approval;
- The condition reference number;
- A designation regarding compliance or non-compliance;
- A summary of evidence and comments to support the compliance designation; and
- References to any other parts of the compliance report which relate to that approval condition.

The annual compliance report will also make a clear statement that operations were, or were not, compliant with the EPBC Act conditions of approval. The statement should be supported by a summary of evidence clearly demonstrating the conclusion that compliance with the condition was (or was not) fully met. Supporting data such as threatened flora and fauna surveys, photograph monitoring and groundwater monitoring data should be provided.
4.4 Corrective actions

Findings of non-compliance with the OEMP (outlined in the annual compliance report) must be accompanied by a summary detailing any corrective measures taken and include:

- The relevant EPBC approval condition number;
- Who detected the non-compliance;
- Date the non-compliance was detected;
- Was DotE, and other agencies as appropriate, notified of the non-compliance and if so, when and how;
- How the non-compliance was/will be corrected;
- Who (the actual person completing the correction) was/is responsible for correcting the non-compliance;
- Date correction measures were/will be commenced and/or completed or the time frame for correction; and
- What measures have been/ will be taken to avoid recurrence.

Instances of non-compliance included in previous compliance reports which were not fully corrected at the end of the reporting period, should have a progress update in the subsequent report and an assessment of the effectiveness of the measures taken.

In the event of an environmental incident refer to Section 2.4 and corrective actions outlined in Tables 4.1-4.3.
5.0 Conclusion

This OEMP has been prepared in response to the information requested for the Project. Specifically, this OEMP provides proposed avoidance, management and mitigation measures for actions, which may have impacts on Commonwealth listed threatened species and communities. This OEMP has been prepared taking into consideration the *Environmental Management Plan Guidelines* prepared by DotE (2014b).

This OEMP outlines the strategies and associated mitigations measures that are to be implemented during the design, construction and operational phases of the Project, including:

- Vegetation and Weed Management Strategy;
- Fauna Management Strategy; and
- Water, ESC Management Strategy;

It is considered that implementation of this OEMP will ensure that deliberate actions are taken to avoid and/or minimise the potential for impacts on MNES as a consequence of the Project.
6.0 References


