1 Introduction

1.1 Action description

The Coomera Connector Stage 1 (**the action** - see *Figure 1*) involves the construction and operation of a new 16 km high-speed arterial road between Shipper Drive, Coomera and Nerang-Broadbeach Road, Nerang, in the northern Gold Coast region in Queensland. The proponent for the action is the Queensland Department of Transport and Main Roads (**TMR**).

By constructing additional crossings of the Coomera and Nerang rivers, the action will reduce pressure on the Pacific Motorway (M1) by providing an alternative route for the growing communities and commercial hubs of Helensvale and Coomera. The corridor is wide enough for an ultimate 6-lane motorway. The 16 km Stage 1 route will be built to 4 lanes to meet medium-term traffic needs. Key major structures will be future-proofed to 6 lanes, to help minimise future construction impacts to adjacent residents and the travelling public.

As the action is the construction and operation of a permanent road corridor, it requires the permanent removal of habitat within the action corridor (impact area).

1.2 Purpose and objectives of this management plan

The purpose of this OAMP is to address the requirements of EPBC 2020/8646 approval conditions dated 17 March 2023 relating to MNES offset requirements and offset delivery.

1.2.1 Significant residual impacts to protected matters

The EPBC approval provides for the clearing of 15.928 ha of coastal swamp oak TEC, 73.8 ha of koala habitat (consisting of 68.756 ha of koala habitat, plus an additional 5.044 ha although the habitat will not be cleared), and 68.756 ha of grey-headed flying-fox (**GHFF**) habitat from the action corridor. This OAMP details the offsets that will be provided for these significant residual impacts.

Coastal swamp oak TEC

The coastal swamp oak TEC was recorded at Helensvale (Helensvale Road, adjacent to Coombabah Wetlands; and Careel Reserve) and Coomera (at Oaky Creek). The coastal swamp oak TEC was represented by primarily by RE 12.1.1 and very small areas of RE 12.3.20 where *Casuarina glauca* was dominant. Approximately 15.93 ha of the TEC has been recorded within the proposed action corridor, of which 15.928 ha is considered to be critical habitat for the survival of this TEC.²

PlanIt Consulting prepared an assessment in 2022 of the extent and quality of this TEC at the impact site. Their report formed Appendix 11 of the approved PER. The vegetation was assessed in accordance with the *Queensland Guide to Determining Terrestrial Habitat Quality (version 1.3)* and *BioCondition Assessment Framework for Terrestrial Biodiversity in Queensland Assessment Manual (version 2.2)*, and the quality assessment across all assessment sites resulted in an average score of 8/10 including the areas of physical loss (15.01 ha) and the areas of functional loss (0.918 ha). A full set of scoresheets for individual assessment sites is available provided in Attachment 1 of the PlanIt report, which is provided at *Appendix E*.³

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² Department of Transport and Main Roads (2022). Coomera Connector Stage 1 Public Environment Report, p.257. Available at

 $[\]frac{https://coomeraconnectorreport.tmr.qld.gov.au/Coomera+Connector+Stage+1+Public+Environment+Report+(EPBC+2)}{020-8646).pdf}$

³ ibid, see Appendix 11.

Koala habitat

Field surveys were undertaken to ground-truth the desktop data for koalas. The on-ground surveys were conducted in accordance with the *Koala Referral Guidelines*, incorporating numerous direct and indirect detection methods (e.g., line transects, nocturnal spotlighting, call playback, sensor activated cameras and Spot Assessment Technique (**SAT**) surveys). An intensive surveying period of 12 months was conducted from July 2018 to July 2019, encompassing all seasons, weather and climate events. Additional surveys were undertaken to develop a significant baseline. On-ground surveys for koalas were undertaken during peak (August to January) and off-peak (February to July) periods.

PlanIt Consulting prepared an assessment in 2022 of the extent and quality of koala habitat at the impact site, in accordance with the guidelines stated in the approved PER. Their report formed Appendix 12 of the approved PER. The vegetation was assessed in accordance with the *Queensland Guide to Determining Terrestrial Habitat Quality (version 1.3)* and *BioCondition Assessment Framework for Terrestrial Biodiversity in Queensland Assessment Manual (version 2.2)*. The results have been applied in accordance with *How to use the offsets assessment guide* (DSEWPaC, 2012), taking into account site condition, site context and species stocking rate to contribute to the calculation of habitat quality using the EPBC Act Offsets assessment guide.

The quality assessment resulted in an average score across all assessment sites of 7/10. The removal of 73.81 ha of habitat (which includes 5.0 ha of functional loss) results in an adjusted residual impact of 51.67 ha. A full set of scoresheets for individual assessment sites is available provided in Attachment 1 of the PlanIt report, which is provided at *Appendix F*.⁴

Grey-headed flying fox habitat

Three main survey efforts were carried out to identify the grey-headed flying-fox, which included daytime field surveys for camps, surveys of vegetation communities and food plants, and night-time surveys which included walking transects (100 metres apart) looking for feeding and flying bats.

PlanIt Consulting prepared an assessment in 2022 of the extent and quality of GHFF habitat at the impact site, in accordance with the guidelines stated in the approved PER. Their report formed Appendix 13 of the approved PER. The vegetation was assessed in accordance with the *Queensland Guide to Determining Terrestrial Habitat Quality (version 1.3)* and *BioCondition Assessment Framework for Terrestrial Biodiversity in Queensland Assessment Manual (version 2.2)*. The results have been applied in accordance with *How to use the offsets assessment guide* (DSEWPaC, 2012), taking into account site condition, site context and species stocking rate to contribute to the calculation of habitat quality using the EPBC Act Offsets assessment guide.

The quality assessment resulted in an average score across all assessment sites of 7/10. The removal of 68.76 ha of habitat results in an adjusted residual impact of 48.132 ha. A full set of scoresheets for individual assessment sites is available provided in Attachment 1 of the PlanIt report, which is provided at *Appendix G*.⁵

1.2.2 Approval conditions related to offset requirements and delivery

The requirements of each of the approval conditions relating to the offset requirements and delivery are summarised in

⁴ ibid, see Appendix 12.

⁵ ibid, see Appendix 13.

Table 2, and references the OAMP section that addresses each requirement.

The environmental outcomes of this OAMP are specific improvements in ecological values in habitat for each of the matters impacted by the action. These improvements are defined in detail in *Section 6* of this OAMP (Offset completion criteria and performance targets).

Table 2: EPBC approval conditions related to offsets addressed in this document

Condition	OAMP section or comment	Brief information about how the condition is addressed
Compensatory measures		
9) To compensate for the loss of up to 73.8 ha of Koala habitat, up to 15.928 ha of Coastal Swamp Oak TEC and up to 68.756 ha of Greyheaded Flying-fox habitat, the approval holder must:		
 a) Legally secure a minimum of 313.38 ha of land within the Tabooba offset area and 85.82 ha of Coastal Swamp Oak TEC, 45.35 ha of Koala and Grey-headed Flying-fox offsets within the Greenridge offset area within 12 months of this approval decision. 	See Section 9	The offset will be legally secured to the titles of the properties through the use of a declared area under the Vegetation Management Act 1999 (Qld).
b) Within 20 business days of legally securing the areas within the Tabooba offset area and Greenridge offset area specified in condition 9(a), provide the department with:	See Section 9	The proponent will provide written evidence of the
i) Written evidence demonstrating that the areas within the Tabooba offset area and Greenridge offset area specified in condition 9(a), have been legally secured	See Section 9	offsets being legally secured within 20 days of the declared areas being registered on the titles of the properties.
 ii) Shapefiles and offset attributes of the areas within the Tabooba offset area and Greenridge offset area specified in condition 9(a). 	See Section 9	Shapefiles will be provided within 20 days of the declared areas being registered.
c) Achieve all the habitat quality uplift outcomes within the timeframes specified.	See Section 6	Management actions have been developed to ensure that the vegetation communities are restored to benchmark condition.
10) Within 6 months of this approval decision, the approval holder must submit an Offset Area Management Plan for the Tabooba offset area and Greenridge Offset area (OAMP-TOA&GOA) to the department for the Minister's approval. The OAMP-TOA&GOA must meet the requirements of the Environmental Offsets Policy, the Environmental Management Plan Guidelines and meet the requirements specified in Attachment F to the satisfaction of the Minister.	This document	
11) If the Minister writes to the approval holder stating that he/she considers that the OAMP-TOA&GOA, required under condition 10 is not likely to achieve the outcomes required under condition 9(c), the approval holder must cease all clearing and/or construction at the development area within 2 months of receiving such a notice, or as otherwise directed by the Minister. Clearing and/or construction may only restart after the Minister	See Section 10	Noted.

Cor	dition	OAMP section or comment	Brief information about how the condition is addressed	
	notifies the approval holder that the Minister has approved the revised OAMP-TOA&GOA, or otherwise with the Minister's written direction.			
12)	The approval holder must implement the OAMP-TOA&GOA as approved by the Minister until the expiry of this approval.	See Section 11	The proponent commits to implementing this OAMP. Table 3 lists all commitments made as part of this management plan.	
Sub	mission and publication of plans			
32)	The approval holder must submit all plans required by these conditions electronically to the department.	See Section 10	The approval holder will submit this plan electronically.	
33)	must publish each plan on the website within 15 business days of the date: b) the plan is approved by the Minister in writing, if the plan requires the	See Section 10	Once approved by the Minister, the approval holder will publish this plan on the website and keep it	
34)	approval of the Minister; or The approval holder must keep all published plans required by these conditions on the website until the expiry date of this approval.	See Section 10	published on the website until the approval expiry date.	
Ger	eral			
39)	The approval holder must maintain accurate and complete compliance records.	See Section 8	The approval holder will maintain accurate and complete compliance records.	
40)	If the department makes a request in writing, the approval holder must provide electronic copies of compliance records to the department within the timeframe specified in the request.	See Section 8	The approval holder will provide electronic copies of compliance records to the department within the timeframe specified in the request.	
43)	The approval holder must submit all monitoring data (including sensitive ecological data), surveys, maps, other spatial and metadata and all species occurrence record data (sightings and evidence of presence) electronically to the department within 12 months of the approval or in accordance with the requirements of the OAMP-TOA&GOA.	See Section 8	The approval holder will submit all monitoring data electronically to the department within 12 months of the approval or in accordance with the requirements of the OAMP.	
48)	The approval holder must notify the department electronically, within 2 business days of becoming aware of any incident and/or potential non-compliance and/or actual non-compliance with the conditions or commitments made in a plan.	See Section 10	The approval holder will notify the department electronically, within 2 business days of becoming aware of any incident and/or potential non-compliance and/or actual non-compliance with the conditions or commitments made in this OAMP; specifying which condition or commitment has been breached, a short description of the incident and its location.	
49)	The approval holder must specify in the notification: a) Any condition or commitment made in a plan which has been or may have been breached. b) A short description of the incident and/or potential non-compliance and/or actual non-compliance.	See Section 10		

Cor	dition	OAMP section or comment	Brief information about how the condition is addressed	
	 c) The location (including co-ordinates), date, and time of the incident and/or potential non-compliance and/or actual non-compliance. 			
50)	The approval holder must provide to the department in writing, within 12 business days of becoming aware of any incident and/or potential non-compliance and/or actual non-compliance, the details of that incident and/or potential non-compliance and/or actual non-compliance with the conditions or commitments made in a plan. The approval holder must specify: a) Any corrective action or investigation which the approval holder has already taken b) The potential impacts of the incident and/or non-compliance and/or non-compliance c) The method and timing of any corrective action that will be undertaken by the approval holder.	See Section 5.2 See Section 10	The approval holder will provide to the department in writing, within 12 business days of becoming aware of any incident and/or potential non-compliance and/or actual non-compliance, the details of that incident and/or potential non-compliance and/or actual non-compliance with the conditions or commitments made in this OAMP; specifying any corrective action or investigation which the approval holder has already taken; the potential impacts of the incident and/or non-compliance; and the method and timing of any corrective action that will be undertaken by the approval holder.	
Offs	set Management Plan Requirements (Attachment F of approval)			
a.	Include a reference to the EPBC Act approval conditions (and state or local government approval conditions) to which the Offset Management Plan refers	This table	This table	
b.	Specify referenced plans, including revegetation and rehabilitation plans, and how these can be accessed.	Provided at Appendix B and Appendix C		
C.	Include detailed information on the residual impacts to protected matters that will be offset. This must include the area(s) of habitat for protected matters and its condition and quality at all impact sites which the offset is to address	See Section 1.2.1	Coastal swamp oak TEC impact habitat quality score (HQS) = 8/10; koala habitat impact HQS = 7/10, grey headed flying-fox impact HQS = 7/10. Detailed data provided at <i>Appendix E</i> , <i>Appendix F</i> and <i>Appendix G</i> .	
d.	Identify a suitable environmental offset(s) for the impacts on protected matters, and provide detailed baseline information on the proposed offset(s) and commit to achievable and measurable ecological benefits, and timeframes for their achievement, for the proposed offset(s)	See Section 3. See Section 1.3 See Section 6	BioCondition data for the 2 offset properties is provided at <i>Appendix H</i> and <i>Appendix I</i> . HQS tables for offsets for each matter are provided at <i>Appendix J</i> , <i>Appendix K</i> and <i>Appendix L</i> .	
e.	Detail how the offset(s) will be protected, and ecological benefits maintained, in perpetuity	See Section 5 See Section 9	TMR will legally secure the offset areas in perpetuity through the use of a declared area. Thus, the ecological benefits to the species from the implementation of this OAMP will result in a permanent change to the legal status of the vegetation/habitat which will be protected under the EPBC Act as MNES	

Condition	OAMP section or comment	Brief information about how the condition is addressed
		habitat, Vegetation Management Act 1999 (Qld) as remnant vegetation and essential habitat and the Nature Conservation Act 1992 (Qld) as habitat for a protected species.
		With respect to the property Tabooba, TMR may enter into an agreement with the Queensland Department of Environment and Science (DES) and/or Scenic Rim Regional Council (SRRC) to have the property established as a nature conservation area and/or be maintained under the Land for Wildlife program respectively. Brief informal discussions have already been had with SRRC's Land for Wildlife Program as to TMR and Council maintaining the property post approval. Decisions on the maintenance of the property would be made closer to the lapsing of the approval. With respect to the property Greenridge, DES and Gold Coast City Council (GCCC) have previously expressed interest in acquiring Greenridge. Given the interest by both DES and GCCC, TMR may enter into an agreement with either or both DES and GCCC to maintain the property particularly given its proximity to the Pimpama River Conservation Area. Decisions on the maintenance of the approval.
f. Include a table of commitments to achieve the ecological benefits for relevant protected matters, and a reference to where the commitments are detailed in the Offset Area Management Plan	See Table 3	
g. Include timebound management actions that will be implemented to achieve the measurable ecological benefits for relevant protected matters	See Section 5	Management actions, triggers and corrective actions are detailed in <i>Table 12</i> through <i>Table 15</i> .
h. Include an assessment of risks to achieving the ecological benefit(s) and what risk management strategies will be applied to address these	See Section 4	Each risk identified in the respective conservation advice, listing advice and recovery plans has been assessed and is detailed in <i>Table 10</i> and <i>Table 11</i> .
i. Include reporting and review mechanisms, and documentation standards to inform others annually regarding compliance with management and	See Section 8	Annual reporting is detailed in <i>Table 189</i> .

Со	dition	OAMP section or comment	Brief information about how the condition is addressed
	environmental commitments, and attainment and maintenance of ecological benefits, as specified in the Offset Area Management Plan.		The methodology for reporting compliance and attainment of ecological benefits is detailed in <i>Table 19</i> .
j.	Propose corrective actions to ensure ecological benefits for the protected matters are attained or maintained, if trigger values are reached or performance indicators not attained	See Section 5	Corrective actions and the triggers for these corrective actions are detailed in <i>Table 12</i> through <i>Table 15</i> .
k.	Include a monitoring program for the full duration of the proposed offset management period, which must include: i. measurable performance indicators to monitor progress towards attainment of the ecological benefits for the protected matters ii. a randomisation of monitoring within the offset area to ensure ecological benefits reflect the whole offset site(s) iii. trigger values and timing of corrective actions iv. the timing and frequency of monitoring to detect trigger values and changes in the performance indicators.	See Section 8	The methodology for reporting compliance and attainment of ecological benefits is detailed in <i>Table 19</i> . While undertaking monitoring activities, the responsible person will move between the permanent survey points in a random manner noting any substantial variation in the condition of the offset area between the permanent monitoring points. Any substantial variation is to be noted in the subsequent report. Corrective actions and the triggers for these corrective actions are detailed in <i>Table 12</i> through <i>Table 15</i>

1.3 Commitments made in the OAMP

This section summarises the commitments made throughout this OAMP to achieve ecological benefit(s) for the relevant MNES. These ecological benefits will be achieved through the integrated implementation of many elements of this OAMP. Additional commitments are also made in alignment with the general conditions of the approval. *Table 3* below lists each of these commitments and provides references to the sections in this OAMP where these commitments are detailed.

Table 3: Commitments made in this OAMP

Commitment	OAMP section or comment
The approval holder commits to the implementation of this OAMP.	See Executive summary and Section 11
The approval holder commits to achieve the ecological benefits for each protected matter.	See Section 3.3.4, Section 3.4.4 and Section 3.5.4
The approval holder commits to undertaking the management actions as described in <i>Table 12 and Table 13</i> .	See Section 5.1
The approval holder will engage suitably qualified persons to undertake the BioCondition assessments, ecological studies and surveys, prepare reports and undertake inspections, as required.	See Section 5 and Section 8
The approval holder will notify the Department (within the timeframe stipulated by the approval conditions) of any incident, non-compliance with conditions, or non-compliance with any of the commitments made in this OAMP	See Section 5.2 and Section 10
The approval holder will provide an annual compliance report to the Department describing the progress of the offset area over the relevant 12-month period.	See Section 8
The approval holder commits to registering a legally binding conservation mechanism to provide long-term protection to the offset area within 12 months of the date of the approval conditions (i.e 17 March 2024).	See Section 9 and Section 11
The approval holder will provide written evidence to the Department within 20 business days of the mechanisms to legally secure the offsets having been registered.	Section 9
The approval holder will notify the Department of any incident or potential or actual non-compliance with the conditions or commitments made in this OAMP as soon as practical and no later than 2 business days after becoming aware of the incident or non-compliance.	Section 10
The approval holder will provide to the Department in writing, within 12 business days of becoming aware of any incident and/or potential non-compliance and/or actual non-compliance, the details of that incident and/or potential non-compliance and/or actual non-compliance with the conditions or commitments made in this OAMP. The notification will specify any corrective action or investigation which the approval holder has already taken; the potential impacts of the incident and/or non-compliance and/or non-compliance; and the method and timing of any corrective action that will be undertaken by the approval holder.	Section 10
If the approval holder wishes to carry out any activity otherwise than in accordance with this OAMP, the approval holder will submit to the Department for the Minister's written approval a revised version of the OAMP. The varied activity will not commence until the Minister has approved the varied OAMP in writing. If the	Section 10

Commitment	OAMP section or comment
Minister approves the revised OAMP, that OAMP will be implemented in place of the OAMP originally approved.	
This OAMP will be published on TMR's website within 15 business days of the OAMP being approved by the Minister. The OAMP will remain on the website and accessible to the public for the duration of the EPBC Act approval.	Section 11

1.4 OAMP structure

The OAMP is divided into 7 sections that provide the following:

- Offset property and offset area descriptions
- Risk analysis
- Offset management measures
- Completion criteria and performance targets
- Monitoring and reporting
- Legally binding mechanism
- Adaptive management and plan review.