# WANDOBAH RESERVE MANAGEMENT PLAN

LOT 4 IN DP1222187 & LOT 1 IN DP1245280 3-37 OXLEY HIGHWAY, GUNNEDAH



WANDOBAH RESERVE MANAGEMENT PLAN, ISSUE 2, REVISION A

DATE: 20 July 2023

**PREPARED FOR:** Gunnedah Shire Council

PREPARED BY:

Stewart Surveys Pty Ltd 107-109 Conadilly Street, PO Box 592 GUNNEDAH NSW 2380 office@stewartsurveys.com

Stewart Surveys Reference: 5926

#### **REPORT PREPARATION**

Name:	Kathryn Stewart	
Qualifications:	Bachelor of Landscape Architecture (UNSW) Masters of Environmental Management (UNSW) Registered Landscape Architect (#001493)	
Name:	Felicity Stevens	
Qualifications:	Bachelor of Sustainability (UNE)	
Company:	Stewart Surveys Pty Ltd ABN: 65 002 886 508 PO Box 592, Gunnedah NSW 2380 (02) 6742 2966 office@stewartsurveys.com	

#### SITE PARTICULARS

Lot Particulars:	Lot 4 in DP1222187
	Lot 1 in DP1245280
Address:	Wandobah Reserve
	3-37 Oxley Highway
	Gunnedah NSW 2380
Local Government Area:	Gunnedah Shire Council
Land Manager:	Gunnedah Shire Council
Land Owner:	The State of NSW & Gunnedah Shire NSW
Revision Date:	20 July 2023
	20 July 2023
Document Version:	Issue 2, Revision A

#### DOCUMENT HISTORY AND STATUS

Issue	Rev	Issued to	Qty	Date	Reviewed	Approved
1	А	Internal	1	10/12/14	10/12/14	10/12/14
1	В	GSC	1	11/12/14	12/12/14	12/12/14
1	1	DoE	1	15/12/14		
2	А	GSC	1	20/07/23	19/07/23	20/07/23
2						

## CONTENTS

1.	INTRODUCTION	3
2.	MANAGEMENT ACTIONS	4
2.1 SIT	'E INDUCTION	4
2.2 PR	E-CLEARING INSPECTION	4
2.3 VE	HICLE MANAGEMENT	4
2.4	WASTE MANAGEMENT	6
2.5 OF	FSET PLANTINGS	6
2.6 M	ONITORING AND MAINTENANCE	7
2.7 CO	MMUNITY INFORMATION/EDUCATION	7
3.	PERFORMANCE EVALUATION	9
3.1 TA	RGETS AND PERFORMANCE INDICATORS	9
3.2 AD	APTIVE MANAGEMENT	

10

## ACRONYMS

GSC	Gunnedah Shire Council
Reconstruction	Blackjack Creek Riparian Corridor/Channel Reconstruction
REF	Review of Environmental Factors
VMP	Vegetation Management Plan
VRZ	Vegetated Riparian Zone

## 1. INTRODUCTION

This management plan is a revision of the original Blackjack Creek Riparian Corridor/Channel Reconstruction Wandobah Reserve Management Plan, prepared by Constructive Solutions, dated December 2014.

The report adopts the format and content of the original report but has been reviewed and updated to reflect the current management practices for the Blackjack Creek Riparian Corridor through the Council managed, Crown Land Reserve.

Gunnedah Shire Council (GSC) reconstructed the Blackjack Creek riparian corridor/channel in order to provide for flood mitigation in 2014. At the time GSC completed extensive investigations to date, culminating in the preparation of the Blackjack Creek Riparian Corridor/Channel Reconstruction Concept Design and Feasibility Study (Constructive Solutions 2012).

The Blackjack Creek reconstruction was subject to approval under sections 130(1) and 133 of the *Environment Protection and Biodiversity Conservation Act 1999* for impact to the Koala. Approval 2013/6732 was granted on 22 November 2013.

Preparation of a Wandobah Reserve Management Plan for the Blackjack Creek reconstruction is required as Condition 3 of Approval 2013/6732.

The requirements of Condition 3 of Approval 2013/6732 have been addressed throughout this Wandobah Reserve Management Plan as detailed in Table 1.

Condition	Requirements	Relevant Section
2013/6732 – Condition 3a(i)	Management actions designed to improve the value of the reserve for koala habitat, including management of unauthorised access to and use of the reserve.	2
2013/6732 – Condition 3a(ii)	Management actions designed to improve the value of the reserve for koala habitat, including management of koala predators that may access the reserve.	2.4
2013/6732 – Condition 3b	2013/6732 – An ongoing ecological monitoring program to monitor the success of the management actions in the Wandobah Reserve	

#### Table 1 - Conditions addressed in this VMP

## 2. MANAGEMENT ACTIONS

At the time this management plan was originally written the following management actions were implemented to improve the value of Wandobah Reserve for koala habitat:

- Site induction;
- Pre-clearing inspection;
- Vehicle management;
- Waste management;
- Offset plantings;
- Monitoring and maintenance; and
- Community information/education.

### **2.1 SITE INDUCTION**

Prior to commencement of the Blackjack Creek reconstruction, all construction personnel will be inducted to the site. This induction will include detailed information regarding the impact of the Blackjack Creek reconstruction to koalas and the need to adhere to the relevant management plans and design constraints. Workers and contractors not included at the preconstruction site induction will need to be inducted onto the site prior to commencing any works associated with the Blackjack Creek reconstruction.

This condition was met during the construction phase of the project. Subsequent works by contractors have required as part of the engagement all personnel to be inducted by Gunnedah Shire for general contractor works. Where works could affect the offset habitat, Contractors were further briefed on the constraints of the site to protect this offset vegetation.

#### **2.2 PRE-CLEARING INSPECTION**

All trees are to be searched prior to clearing for koalas. No trees are to be cleared without the completion of this search, or with any fauna (particularly koala) present. Where fauna is found in a tree that is to be cleared, it must be allowed to move from the tree of its own volition. It is anticipated that the movement of fauna will generally occur overnight.

No further tree clearing has occurred since the reconstruction works.

### 2.3 VEHICLE MANAGEMENT

In order to reduce the risk of vehicular strikes with any koalas as a result of the increased traffic movements and heavy machinery associated with the Blackjack Creek reconstruction, all vehicles will be required to adhere to a maximum speed limit of 20km/hr within the Wandobah Reserve during construction. The speed limit will be communicated via the site induction and sign posts at site entries.

All vehicles and construction equipment will be parked inside a secure site compound overnight. All vehicles are to be inspected prior to start-up on-site to ensure that no fauna is on, or in the vicinity of the vehicle.

Following Construction, to further restrict vehicle access a rural style fence has been installed in 2020 along Alford Road and the Oxley Highway the style of this fence is shown in **Figure 1**. In 2022 a post and rail fence with gate access and pedestrian slip access points was installed along the Wandobah Road boundary for the full extent of the reserve from the Oxley Highway to the Cemetery. **Figure 2** shows the fence style and gate access.



Figure 1: Rural Style Fencing





Figure 2: Post and Rail Fencing

### 2.4 WASTE MANAGEMENT

During construction, all food scraps and rubbish are to be appropriately disposed of in sealed receptacles (e.g., GSC issue wheeled rubbish bins located at the site compound) with the contents of the sealed receptacles disposed of according to their waste classification (e.g., general putrescible and recycling) at the Gunnedah Waste Management Facility.

On the completion of construction, permanent receptacles shall be installed at numerous locations within the reserve (e.g., adjacent to the skate park). The use of such receptacles will remove potential forage habitat for predators such as foxes.

There are six (6) rubbish bin receptacles installed around the Wandobah Reserve. Three (3) along the shared pathway, which was constructed in December 2018, two (2) at the toilet block on the Oxley Highway and one (1) near a picnic table in the road reserve near the Brickworks. These bins are regularly emptied by Council staff.

### **2.5 OFFSET PLANTINGS**

Planting of koala habitat trees throughout the Vegetated Riparian Zone (VRZ) and other portions of Wandobah Reserve will occur in accordance with the Review of Environmental Factors, Vegetation Management Plan (VMP) and Approval 2013/6732. This will result in a total offset of 15.138ha.

In addition, the provision of a VRZ for the entire length of Blackjack Creek within Wandobah Reserve and adjacent private property will result in an improvement in the function of Wandobah Reserve and a wildlife corridor for koalas moving north towards the Namoi River from the densely vegetated Blackjack Mountain.

Offset Planting was undertaken in circa 2015.

This vegetation was impacted by extended periods of drought in 2018-2019.

Additional Plantings were undertaken in 2019-2020. These plantings were watered regularly on an as needed basis, until established.

Further replacement plantings were undertaken in 2023 and grounds staff are regularly watering these trees until they are established.

The corridor was also subject to flooding in 2020-2021, during this time the water did not break the banks of the reconstructed channel and there were no tree losses.

Any future tree plantings are to be undertaken within the offset area identified in the vegetation management plan. Tree Guards are to be installed to protect young trees from predators. New plantings are to be watered on an as required basis until established.

### 2.6 MONITORING AND MAINTENANCE

Specific monitoring and maintenance measures to ensure the success of the revegetation component of the Blackjack Creek reconstruction are provided in the VMP. In order to verify the success of the Blackjack Creek reconstruction with regards to koala habitat utilisation, ecological monitoring is also proposed.

This will occur as an annual on-site assessment by GSC or their contractor of koala utilisation of Wandobah Reserve, with sightings, claw marks and scats all considered to be acceptable indicators of koala usage. Community reports of koala sightings may also act as an indicator.

This information may be supplemented by any additional studies into koala habitat distribution and usage within the Gunnedah Local Government Area.

Gunnedah Shire Council Staff have monitored and maintained the reserve to protect Koala habitat. A Koala Survey by Kathryn Stewart (B. Landscape Architecture & M. Environmental Management (UNSW) was undertaken in June 2023 and the results were only historical evidence of Koala activity in the corridor. It is concluded that that lack of recent koala activity in the reserve is likely due to local population decline as vegetation appeared suitable as Koala habitat.

As part of the continued monitoring of the site for Koala Habitat, maintenance staff will take note and record any Koala sightings in the reserve.

### 2.7 COMMUNITY INFORMATION/EDUCATION

Access to Wandobah Reserve cannot be restricted as it is a public reserve. Instead GSC will educate the community about the value of Wandobah Reserve as koala habitat and the need to ensure that predators and vehicles are kept out of the Reserve.

This information will be disseminated to the community via the local newspaper, GSC's newsletter, and the GSC website. The use of volunteers during the revegetation component of the Blackjack Creek reconstruction is anticipated to increase the sense of community ownership of Wandobah Reserve, which will in turn decrease instances of waste dumping and recreational vehicular access.

New Koala awareness signage has been installed in the reserve to raise awareness to the local community about the site being important Koala habitat.

The Koala signage at the southern end of the reserve is located at E235730, N6567664 and near the crossing at Longmuir Park and the Skate Park at E236656, N6569348 as shown in Figure 3. There was also regulatory signage as shown in Figure 4 which identifies the hazards of the reserve and outlines that rubbish dumping and both vehicle and motorbike access to the reserve is prohibited.

The new fence has restricted vehicle movements and decreased rubbish dumping within the reserve.



Figure 3: Community Information Signage Installed



Figure 4: Regulatory Signage Installed

## 3. PERFORMANCE EVALUATION

## **3.1 TARGETS AND PERFORMANCE INDICATORS**

The targets and performance indicators for the management actions of this Wandobah Reserve Management Plan are detailed in Table 2. These targets and performance indicators will be incorporated into the Construction Environmental Management Plan (CEMP) for the Blackjack Creek reconstruction, with non-conformances as part of the being a useful performance indicator.

#### Table 2 – Targets and performance indicators for management measures

Management Measure	Target	Performance Indicator	Responsibility	Frequency		
During construction						
Site induction	100% conformance to flora & fauna management measures provided in the REF & construction contract.	Records of site induction & weekly inspections as part of Construction Environmental Management Plan. No non-conformances for personnel induction.	Construction contractor.	Weekly for the duration of construction.		
Pre-clearing inspection	100% of trees to be cleared are to be checked for absence of fauna prior to clearing.	Pre-clearing inspection records for all clearing. No non-conformances for pre- clearing inspections.	Construction contractor.	Immediately prior to all clearing during construction.		
Vehicle management	100% conformance with 20km/h speed limit within Wandobah Reserve during construction.	Records of no observances of speed exceedance by site supervisor as part of weekly inspections.	Construction contractor.	Daily for the duration of construction.		
Waste management	100% of rubbish disposed of appropriately, with sealed receptacles for food scraps to prevent predator foraging.	Records of no observances of uncontained waste materials on site as part of weekly inspections. No non-conformances for waste disposal.	Construction contractor.	Weekly for the duration of construction.		
Post-Construction						
Offset Planting	100% provision of 15.138ha koala habitat offset via revegetation. 100% maintenance of offset area, as per VMP.	No dead/dying plantings identified during inspections.	Revegetation contractor/GSC Parks & Gardens Division.	Daily during revegetation, monthly following completion of revegetation contract.		

Monitoring & Maintenance	Ongoing use of Wandobah Reserve by koalas.	Annual confirmation of koala presence in Wandobah Reserve via sightings, scats, claw marks, or community reports.	GSC or nominated ecological contractor.	Annually.
Community information/ education	No rubbish dumping or recreational vehicle use in Wandobah Reserve.	Reports of no observances of recreational vehicle use. No findings of dumped rubbish by GSC Parks & Gardens staff during maintenance activities.	GSC Parks & Gardens Division.	Monthly or as per GSC Parks & Gardens maintenance program.

The targets and performance measures noted during the construct phase were carried out.

The post construction targets and performance measures have been assessed as part of the landscape inspection report. These performance indicators and targets remain current for the project.

### **3.2 ADAPTIVE MANAGEMENT**

The ongoing management of the Blackjack Creek reconstruction will generally be the responsibility of GSC Parks and Gardens Division once construction is complete. As such, the Blackjack Creek reconstruction will be integrated into the ongoing management of Wandobah Reserve as a whole, under GSC's Parks and Gardens maintenance program. This integration will provide the necessary flexibility for adaptive management following emergency situations (e.g., following a flood event or during a drought).

The overall operational structure of GSC will also facilitate the adaptive management of Wandobah Reserve as inputs/recommendations/observations from the various GSC departments and the community can be collated, investigated and, if found to be appropriate, implemented into the ongoing management of Wandobah Reserve The ongoing management of Wandobah Reserve in accordance with this management plan will occur well beyond the anticipated 20 years impact to koala habitat.

Regular maintenance of Wandobah Reserve is being undertaken by Gunnedah Shire Council. This maintenance includes slashing, vegetation monitoring and watering as required, rubbish removal, replacement of failed vegetation, maintenance of fencing, spraying of weeds and other general measures to keep the public recreation space in good order.

Overall, we believe the maintenance measures being undertaken are successful in achieving the goals of this report and suitably managing and improving Koala Habitat within the reserve.

This report should be reviewed and updated on an annual basis as required by the Conditions of approval 2013/6732.

#### COPYRIGHT ©

This report and the plans enclosed are the copyright of Stewart Surveys Pty Ltd. and is protected under the Copyright Act 1968. It may not be altered, reproduced or transmitted in any form, or by any means without the express permission of Stewart Surveys Pty Ltd.

## Stewart Surveys, Pty Ltd

107-109 Conadilly Street, PO Box 592 GUNNEDAH NSW 2380

Ph. (02) 6742 2966

office@stewartsurveys.com

http://www.stewartsurveys.com