



Carlton Plain Stage 1 – Irrigated Agriculture

COMPLIANCE ASSESSMENT REPORT

1 January 2020 – 31 December 2020

Statement 1081

May 2021

Prepared for and on behalf of

Kimberley Agricultural Investment Pty Ltd

CAN 154 270 194

794 Weaber Plain Road, Kununurra WA 6743

by

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Document Control

Date	Version	Reviewed / endorsed by
28 May 2021	Rev A	For client review and submission

Acronyms and abbreviations in use in document

AER	Annual Environment Report
AHA	Aboriginal Heritage Act 1972
ANZECC	Australian and New Zealand Environment and Conservation Council
BAM Act	Biosecurity and Agriculture Management Act 2007
CAP	Compliance Assessment Plan
CAR	Compliance Assessment Report
DAFWA	(Former) Department of Agriculture and Food Western Australia
DBCA	Department of Biodiversity, Conservation and Attractions
DER	Department of Environmental Regulation
DoW	(Former) Department of Water
DPIRD	Department of Primary Industries and Regional Development
DWER	Department of Water and Environmental Regulation
ECD	Ecological Character Description
ECe	Electrical conductivity (of saturated soil extract)
EMP	Environmental Management Program/Plan
EPA	Environmental Protection Authority
EP Act	Environmental Protection Act (1986)
EPBC Act	Environment Protection and Biodiversity Conservation Act (1999) (Cwth)
ESP	Exchangeable Sodium Percentage
GL	Gigalitre(s)
ha	Hectare(s)
ILUA	Indigenous Land Use Agreement
KAI	Kimberley Agricultural Investment Pty Ltd
KBC	Kimberley Boab Consulting
km	Kilometre(s)
m ³ /sec	cubic metres per second (also known as cumec)
mbgl	metres below ground level
MNES	Matter(s) of National Environmental Significance
MG	Miriuwung and Gajerrong (peoples)
MG Corporation	Yawoorroong Miriuwung Gajerrong Yirrgeb Noong Dawang Aboriginal Corporation
N	Nitrogen
NR	Nature Reserve
OFA	Ord Final Agreement
OHS	Occupational Health and Safety
ORFRS	Ord River Floodplain Ramsar Site
P	Phosphorus
PEC	Priority Ecological Community
PER	Public Environmental Review
R&D	Research and development
RiWI Act	Rights in Water and Irrigation Act 1914
SoC	Statement of Compliance
TSS	Total Suspended Sediment
WA	Western Australia
WARMS	Western Australian Rangelands Monitoring System

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1.0 Overview

This document reports on the compliance of Kimberley Agricultural Investment Pty Ltd (KAI) in the delivery of the requirements of Ministerial Statement 1081 relating to the development of Carlton Plain Stage 1 for irrigated agriculture. The reporting period is 1 January 2020 to 31 December 2020.

A short report for the period 11 September 2019 to 31 December 2019 was prepared in 2020, in line with the Statement 1081 Compliance Assessment Plan (CAP) approved by the Department of Water and Environmental Regulation (DWER) on 21 February 2019. The CAP proposed that subsequent Compliance Assessment Reports (CARs) would align to calendar years, with this document being the first CAR for a full calendar year (2020).

1.1 Project background

KAI received approval to clear and develop 3,055ha on a property known as ‘Carlton Plain’, northwest of Kununurra in the Shire of Wyndham East Kimberley (see Figure 1) in September 2018, following a Public Environmental Review (PER) process undertaken in 2017. Environmental Protection Authority (EPA) Assessment 2126 was completed, and Report 1614 prepared by the EPA Services branch of the Department of Water and Environmental Regulation (DWER) in 2018. Statement 1081 allows for the clearing and development of 3,055ha between House Roof Hill and the Ord River, for the purpose of surface and pressurised irrigated agricultural cropping, which may include grains, cotton, perennial horticulture, and other crops.

The *Environmental Management Plan* (EMP) for Carlton Plain Stage 1 (Kimberley Boab Consulting, 2018) was approved for implementation under Statement 1081. This Compliance Assessment Report (CAR) covers both the Statement and the approved EMP.

A section 45C application to vary Ministerial Statement 1081 was submitted to DWER on 3 October 2019. The s45C request remains under consideration by DWER. Table 1 summarises the approved operational extent under Statement 1081. Tables 3 outlines the changes under consideration. A revised EMP was submitted to DWER with the s45C request. The amendment application was still under review by DWER at the time of preparation of this report.

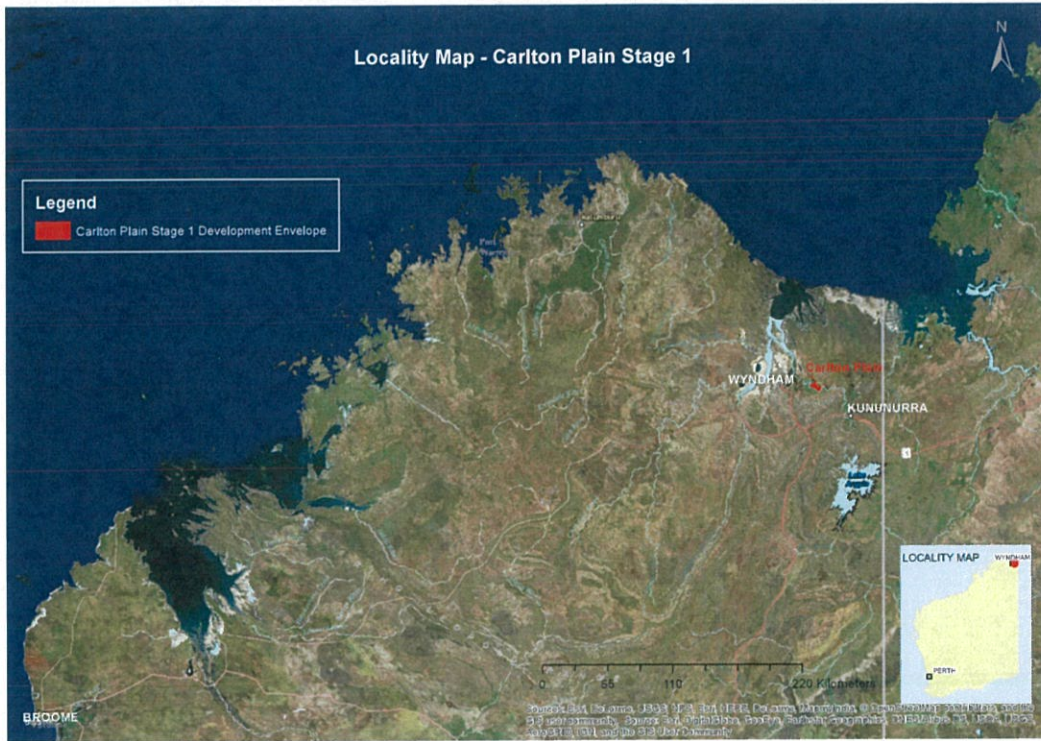
Figures 1 and 2 illustrate the location and the approved and (proposed) varied development area. The net impact of the proposed variation is a reduction in the area of clearing by 110ha, to 2,945ha.

Table 1 - Approved and proposed varied development extent

Element	Approved extent	Proposed extent
Surface and pressurized irrigation of annual and perennial crops, including infrastructure areas access, farm outbuildings, drainage and irrigation requirements.	Clearing of up to 3,055ha (refer to Table 3 for breakdown).	Clearing, development and agricultural activity on up to 2,945ha within the development envelope. Pressurised irrigation infrastructure to be constructed where soils do not allow for surface (flood) irrigation.
Annual irrigation water abstraction	27.6 gigalitres (GL) from the Ord River System.	27.6 gigalitres (GL) from the Ord River System.

(Source: Carlton Plain s45C application)

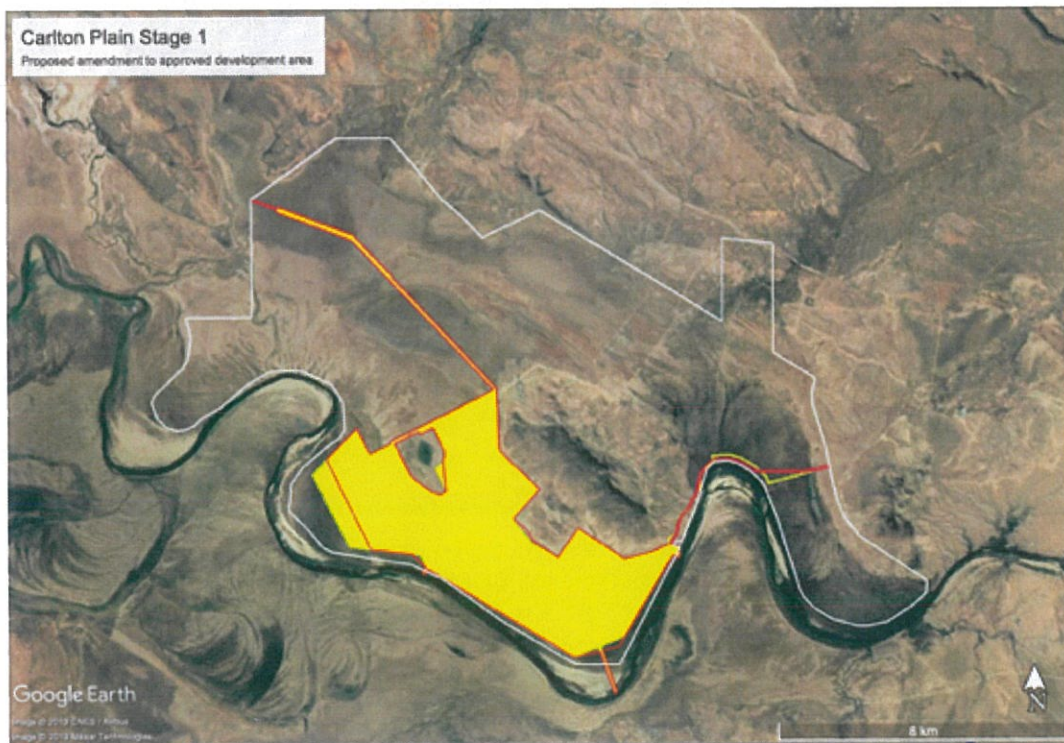
Figure 1 - Carlton Plain Stage 1 Location



area (in yellow) and the proposed new development envelope.

Figure 2 indicates the approved development area (in yellow) and the proposed new development envelope.

Figure 2 - Carlton Plain Stage 1 Approved development envelope and proposed amendment



2.0 Project approvals

Ministerial Statement 1081 permits the following activity:

Table 2 - Summary of the Proposal

Proposal Title	Carlton Plain Stage 1 – Irrigated Agriculture
Short Description	Clearing and development of 3,055ha between House Roof Hill and the Ord River, for the purpose of surface and pressurized irrigated agricultural cropping which may include grains, cotton, perennial horticulture and other crops.

(Source: Table 1 of MS1081 Schedule 1)

Table 3 - Extent of physical and operational elements

Element	Operational extent
Surface irrigation of annual crops	Clearing of up to 1,735ha.
Pressurised irrigation of perennial crops	Clearing of up to 510ha. Pressurised irrigation infrastructure to be constructed where soils do not allow for surface (flood) irrigation.
Infrastructure	Clearing of up to 810ha within the Stage 1 Development Envelope.
Annual irrigation water abstraction	27.6 gigalitres (GL) from the Ord River System.

(Source: Table 2 of MS1081 Schedule 1)

Applications for easements for pumpsites 1 and 2 have been submitted to the Department of Planning, Lands and Heritage (DPLH). The Department of Water and Environmental Regulation has received initial documentation for the water licence application for Carlton Plain, and has requested Bed and Banks Permits for the pumpsites and hillside drainage lines intersected by the Carlton Plain access track. Permit processes continue.

3.0 Proponent details

Registered Business Name: Kimberley Agricultural Investment Pty Ltd

ACN: 154 270 194 **ABN:** 60 154 270 194

Address: 794 Weaber Plain Road (PO Box 2531) Kununurra, WA, 6743

Telephone No: (08) 9169 3113

Email Address: jengelke@kai-australia.com.au

Email Address for notices: Copy to guhai@zhongfu-group.com

Website: www.kai-australia.com.au

Proponent representatives:

Mr Gu Hai
CHIEF EXECUTIVE OFFICER
Phone No: (08) 9169 3113
E-mail address: guhai@zhongfu-group.com

Mr Jim Engelke
GENERAL MANAGER
Phone No: (08) 9169 3113
Mobile Telephone: 0407 991 734
E-mail address: jengelke@kai-australia.com.au

4.0 Implementation status

Clearing for the development of Carlton Plain commenced in April 2019 following the renovation of the eastern entry track in November 2018. At 10 September 2019, 1,102ha of the western portion of the Carlton Stage 1 area had been cleared, per the CAR submitted to DWER in December 2019. By December 2019, 2,005.7ha had been cleared in total. The 2020 dry season saw the raking of areas cleared in the previous year and further clearing of the main farm area.

Construction of the wetland recharge system commenced in 2019, with drainage completed on the western side of Carlton wetland in late 2020.

Total area cleared to 31 December 2020, including the area reported in the previous CARs, has been estimated through cross-referencing satellite imagery with on-farm records and site inspection track logs. Very limited clearing occurred in 2020, with the focus on farm preparation and development following clearing in the previous season.

Table 4 - Summary of clearing to 31 December 2019

Sub-area	Total area cleared (ha) to December 2019	Total area cleared (ha) to December 2020*
Carlton Stage 1 main area	1984.4	2348
Entrance track	21.3	21.3
TOTAL AREA CLEARED	2,005.7	2369.3

*Auditor estimate calculated from perimeter tracklogs ±2%

For comparison purposes, satellite images from the end of the construction season (~end October) 2019 and 2020 are provided in Figures 3 and 4.

To illustrate vegetation coverage change and confirm clearing area analysis, the ‘Satamap Vegetation Index’ (SVI) has been utilised (www.satamap.com.au/features). Similar to the Normalised Difference Vegetation Index (NDVI), SVI exposes variability in vegetation by exploiting the difference in reflectance in the red and near infrared bands. SVI Low gives bias to low biomass crops or pastures, as are present in rangeland areas, and is therefore useful in pastoral situations to illustrate differences in vegetation coverage.

Time series images in Figures 5 to 8 indicate the SVI Low indexing for the Carlton Plain area for the period 2017 (pre-clearing) until late 2020. The images are from a similar date in the calendar year. Because each of the images in Figures 5 to 8 adopts the same colour range as others in the series, seasonal differences can be clearly seen. The 2017 wet season was substantial (approximately 1,700mm rainfall across the district), the 2018, 2019 and 2020 seasons were average or below average (<800mm each). The relative biomass contained in the Carlton wetland, protected from clearing and development through the site recharge planning, is evident across all images. Also evident is the congruency of Carlton Plain biomass coverage with the surrounding pastoral landscape.

Plates 1-6 provide sample ground-level development photographs, taken during the site inspection conducted by the auditor on 26 August 2020.



Satellite images: End of dry season 2019 to end of dry season 2020

(Images source: www.satamap.com.au)



Figure 3 – Satellite imagery - extent of clearing at end October 2019: original (approved) clearing envelope marked



Figure 4 - Satellite imagery – visible extent of clearing at end October 2020: original (approved) clearing envelope marked

Low biomass vegetation index comparison: end of dry seasons 2017 to 2020

(Images source: www.satamap.com.au)

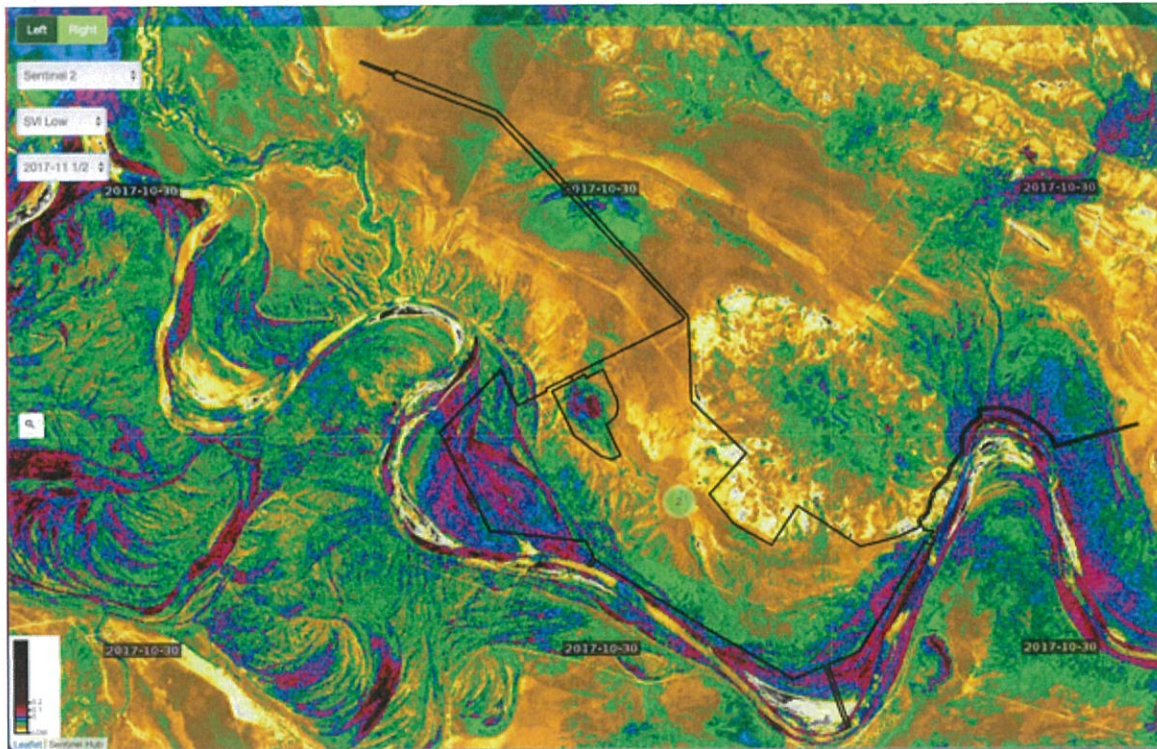


Figure 5 - Normalised vegetation index (low biomass): Carlton Plain November 2017. [Pre-clearing]

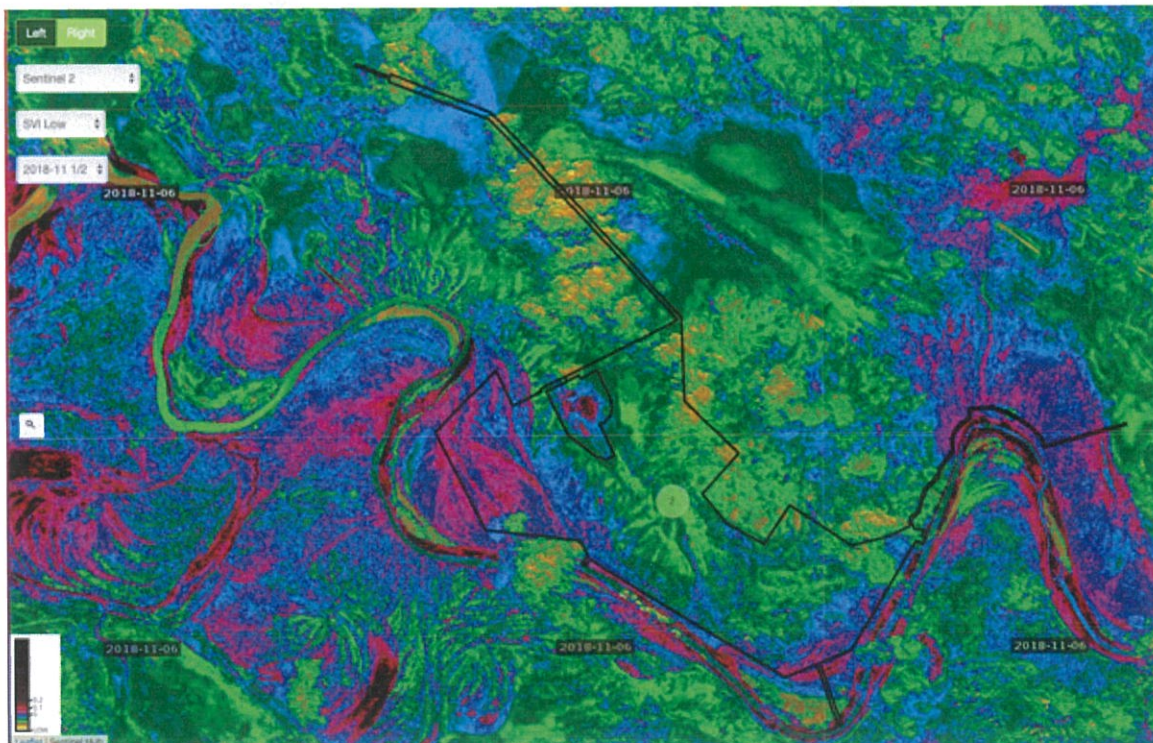


Figure 6 – Normalised vegetation index (low biomass): Carlton Plain November 2018. [Pre-clearing]

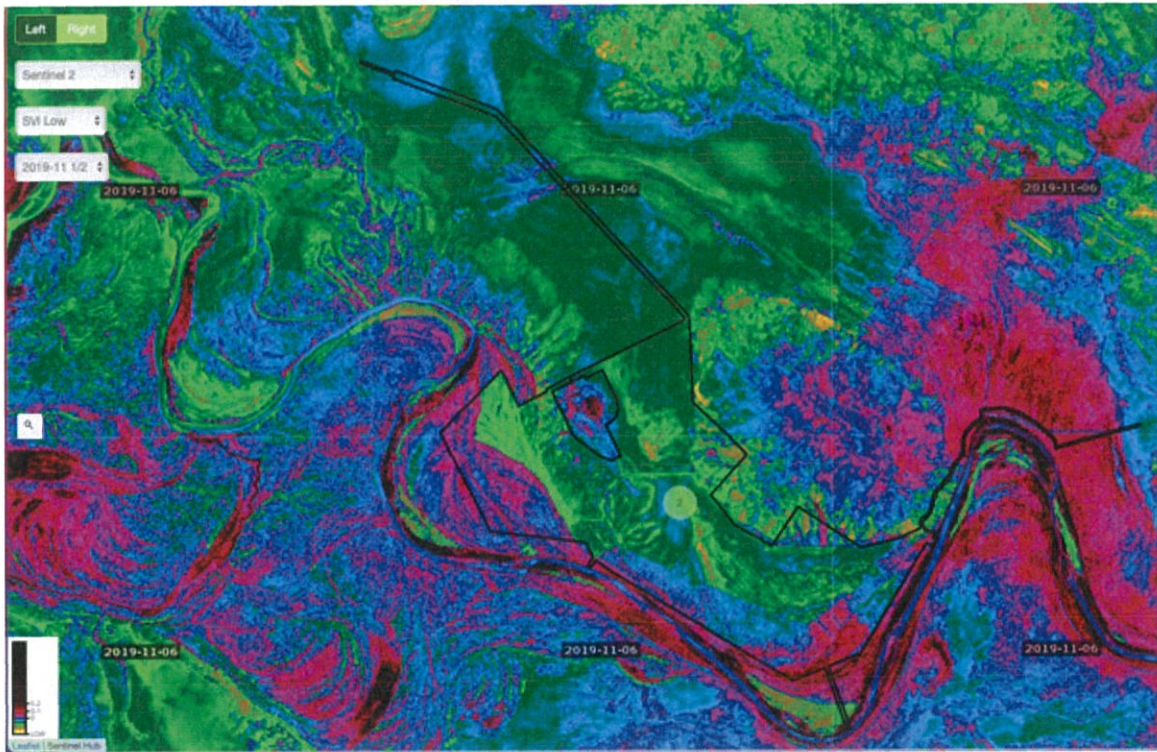


Figure 7 - Normalised vegetation index (low biomass): Carlton Plain November 2019. [After majority of clearing].

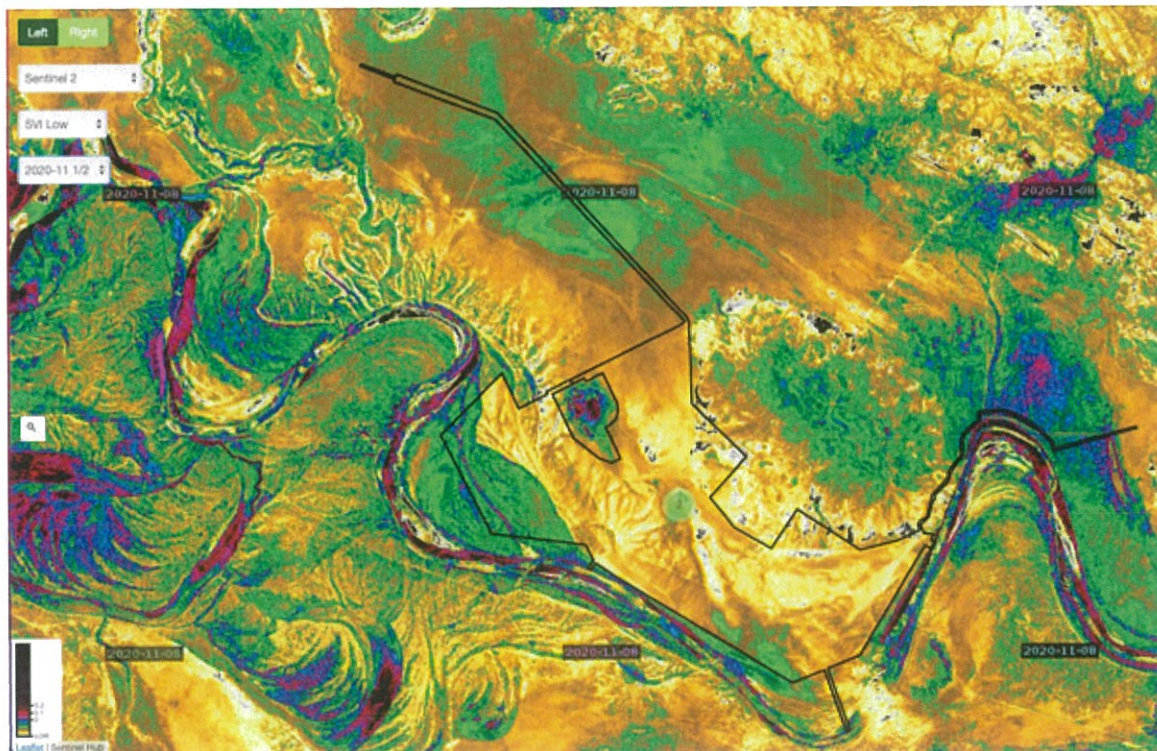


Figure 8 - Normalised vegetation index (low biomass): Carlton Plain November 2020. [After further land development].

Indicative site inspection photographs: August 2026



Plate 1: Central clearing area (looking west from southern clearing boundary).



Plate 2: Central clearing area (looking north-west from southern boundary)



Plate 3: Central clearing area (looking east from southern boundary). False Houserroof Hill in background.



Plate 4: Central clearing area (looking north-east from southern boundary). Houserroof Hill to left of image.



Plate 5: Carlton wetland – central area looking east from west side near Vegetation Condition Site 9.



Plate 6: Carlton wetland – central area looking south-west from west side near Vegetation Condition Site 9.

All photos taken 26 August 2020.

5.0 Statement of Compliance

POST ASSESSMENT FORM 2

Statement of Compliance

1. Proposal and Proponent Details

Proposal Title	Carlton Plain Stage 1 – Irrigated Agriculture
Statement Number	1081
Proponent Name	Kimberley Agricultural Investment Pty Ltd
Proponent's Australian Company Number (where relevant)	154 270 194

2. Statement of Compliance Details

Reporting Period	1/1/2020 to 31/12/20
------------------	----------------------

Implementation phase(s) during reporting period (please tick ✓ relevant phase(s))							
Pre-construction		Construction	X	Operation		Decommissioning	

Audit Table for Statement addressed in this Statement of Compliance is provided at Attachment:	2
<p>An audit table for the Statement addressed in this Statement of Compliance must be provided as Attachment 2 to this Statement of Compliance. The audit table must be prepared and maintained in accordance with the Department of Water and Environmental Regulation (DWER) <i>Post Assessment Guideline for Preparing an Audit Table</i>, as amended from time to time. The 'Status Column' of the audit table must accurately describe the compliance status of each implementation condition and/or procedure for the reporting period of this Statement of Compliance. The terms that may be used by the proponent in the 'Status Column' of the audit table are limited to the Compliance Status Terms listed and defined in Table 1 of Attachment 1.</p>	

Were all implementation conditions and/or procedures of the Statement complied with within the reporting period? (please tick ✓ the appropriate box)		
No (please proceed to Section 3)	X	Yes (please proceed to Section 4)

POST ASSESSMENT FORM 2

3. Details of Non-compliance(s) and/or Potential Non-compliance(s)

The information required Section 3 must be provided for each non-compliance or potential non-compliance identified during the reporting period covered by this Statement of Compliance.

Non-compliance/potential non-compliance 3-1

Which implementation condition or procedure was non-compliant or potentially non-compliant? Condition M4.3 and M4.6
Was the implementation condition or procedure non-compliant or potentially non-compliant? Potential non-compliance due to delayed submission of the CAR for the period September 11 2019 to December 31 2019.
On what date(s) did the non-compliance or potential non-compliance occur (if applicable)? April 1, 2019.

Was this non-compliance or potential non-compliance reported to the Chief Executive Officer, DWER?	
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> Reported to DWER verbally Date _____ <input type="checkbox"/> Reported to DWER in writing Date _____	X No

+

What are the details of the non-compliance or potential non-compliance and where relevant, the extent of and impacts associated with the non-compliance or potential non-compliance? Administrative non-compliance. DWER staff were aware that the report had not been submitted.
What is the precise location where the non-compliance or potential non-compliance occurred (if applicable)? (please provide this information as a map or GIS co-ordinates) N/A
What was the cause(s) of the non-compliance or potential non-compliance? Administrative error.
What remedial and/or corrective action(s), if any, were taken or are proposed to be taken in response to the non-compliance or potential non-compliance? September 2019-December 2019 CAR submitted with this 2020 CAR. Both reports have been uploaded to KAI's website.
What measures, if any, were in place to prevent the non-compliance or potential non-compliance before it occurred? What, if any, amendments have been made to those measures to prevent re-occurrence? Administrative reminders implemented to ensure timely submission of future reports.
Please provide information/documentation collected and recorded in relation to this implementation condition or procedure: <ul style="list-style-type: none"> in the reporting period addressed in this Statement of Compliance; and as outlined in the approved Compliance Assessment Plan for the Statement addressed in this Statement of Compliance. (the above information may be provided as an attachment to this Statement of Compliance)

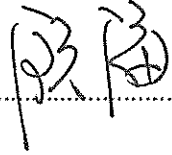


4. Proponent Declaration

I, Ga Hai (full name and position title)

declare that I am authorised on behalf of Kimberley Agricultural Investment
(being the person responsible for the proposal) to submit this form and that the information

contained in this form is true and not misleading.

Signature: 

Date: 01/6/2021

Please note that:

- it is an offence under section 112 of the *Environmental Protection Act 1986* for a person to give or cause to be given information that to his knowledge is false or misleading in a material particular; and
- the Chief Executive Officer of the DWER has powers under section 47(2) of the *Environmental Protection Act 1986* to require reports and information about implementation of the proposal to which the statement relates and compliance with the implementation conditions.



6.0 Compliance assessment methodology

6.1 Purpose and scope of Compliance Assessment Report

This CAR has been prepared under the requirements of Condition 4-6 of Statement 1081, which states:

6.1.1 Condition 4-6 – Statement 1081

The proponent shall submit to the CEO the first Compliance Assessment Report fifteen (15) months from the date of issue of this Statement addressing the twelve (12) month period from the date of issue of this Statement and then annually from the date of submission of the first Compliance Assessment Report, or as otherwise agreed in writing by the CEO.

The Compliance Assessment Report shall:

- (1) be endorsed by the proponent's Chief Executive Officer or a person delegated to sign on the Chief Executive Officer's behalf;*
- (2) include a statement as to whether the proponent has complied with the conditions;*
- (3) identify all potential non-compliances and describe corrective and preventative actions taken;*
- (4) be made publicly available in accordance with the approved Compliance Assessment Plan; and indicate any proposed changes to the Compliance Assessment Plan required by condition 4-1.*

6.1.2 Approved Compliance Assessment Plan

The Compliance Assessment Plan (CAP) required under Condition 4 of Statement 1081 was prepared under the requirements of condition 4-1 of Statement 1081, in accordance with the following EPA/DWER documents:

- PAG2 - Post Assessment Guideline for preparing a Compliance Assessment Plan (OEPA 2012a)
- PAG1 - Post Assessment Guideline for preparing an audit table (OEPA 2012b)
- PAG4 - Post Assessment Guideline for making information publicly available (OEPA 2012c).
- PAG3 – Post Assessment Guideline for preparing a Compliance Assessment Report (OEPA 2012d).
- Post Assessment Form 2 – Statement of Compliance.

The CAP was approved by DWER on 21 February 2019. This report is submitted in accordance with the approved CAP.

6.1.3 Scope

The scope of this Compliance Assessment Report is the suite of conditions contained in MS1081, and in the associated Environmental Management Plan (EMP) for Carlton Plain Stage 1, dated August 2018 (Kimberley Boab Consulting, 2018). The requirements of MS1081 and the EMP are tabled in Attachment 2.

6.1.4 Audit period

The audit period for this CAR is 1 January 2020 to 31 December 2020.



6.1.5 Audit criteria

Audit criteria are specified for each requirement from Ministerial Statement 1081 and the Carlton Plain EMP, in Attachment 2, Tables 1 and 2 respectively.

6.1.6 Methodology

As required under the CAP, KAI engaged Kimberley Boab Consulting Pty Ltd as a suitably qualified auditor to undertake an annual compliance assessment involving:

- Site inspection undertaken on 26 August 2020.
- Utilisation of satellite imagery (www.satamap.com.au)
- Consultation with the proponent’s representative, employees, sub-contractors or other related persons to inform the audit process; and
- Compilation, review and assessment of documentary and photographic evidence sourced by the auditor or provided by the proponent. Documentary evidence may include monitoring results and/or analysis reports.

Records to verify the timing and extent of implementation were collected and collated, and will be and retained to prove compliance with the approval. These records include:

- monitoring data and analyses;
- copies of publications relevant to the project;
- records of contractor contracts;
- photographs
- relevant consultant or engineering reports;
- copies of written advice from agencies or stakeholders indicating or confirming that they have been consulted with and are satisfied with the action that has been or will be undertaken; and/or
- invoices from contractors for completion of the requirement.

Validation of the evidence was undertaken through cross-referencing with available data from other sources, including online remote sensing/satellite data. Photographic and/or video records made during compliance inspections are used to validate evidence supplied by the Proponent. Through the submission of this report, the Proponent warrants the accuracy of the evidence.

6.1.7 Terminology

Terminology used in the compliance assessment has been adopted in line with EPA definitions (modified from OEPA 2012b):

Table 5 - Project phases

Phase	Description (modified to apply to farm development and operations)
Pre-construction	No ground disturbance has commenced.
Construction	Ground disturbance has commenced. Proposal has substantially commenced. Clearing and farm/infrastructure development are under way.
Operation	Cropping has commenced, which may include the irrigation of crops.
Decommissioning	Project decommissioning; returning of farmland and infrastructure to previous pastoral use.
Overall	Phase used where an audit element applies across multiple phases.



This differentiation allows for the compliance assessor to recommend (to the CEO of the EPA) that requirements be finalised due to the cessation of the phase of activity.

Table 6 - Compliance assessment terminology

Status	Acronym	Description / definition
Compliant	C	Implementation of the proposal has been carried out in accordance with the requirements of the audit element.
Completed	CLD	A requirement with a finite period of application has been satisfactorily completed.
Not required at this stage	NR	The requirements of the audit element were not triggered during the reporting period.
Potentially non-compliant	PNC	Possible or likely failure to meet the requirements of the audit element.
Non-compliant	NC	Implementation of the proposal has not been carried out in accordance with the requirement of the audit element.
In process	IP	Where an audit element requires a management or monitoring plan to be submitted to the OEPA or another government agency for approval, that submission has been made and no further information or changes have been requested, and approval by that agency is still pending.

6.2 Retention of Compliance Assessment Report and evidence

KAI will retain this CAR for the life of the proposal and for a minimum 7 years following the end of life of the proposal (post-decommissioning). This includes the retention of –

- (a) Information/documentation/data to support and/or verify the compliance status of the implementation conditions and/or procedures of the Statement as determined during the compliance assessments; and
- (b) Records of any analysis undertaken to determine the compliance status of the implementation conditions and/or procedures as reported in the relevant CAR or Statement of Compliance.

These documents are listed in Attachment 3.

6.3 Reporting non-compliances and corrective measures

In relation to potential non-compliances of incidents, the Compliance Assessment Plan requires that the proponent addresses the following in each CAR or incident/compliance report to the CEO of the EPA:

- The date(s) and details (including precise location) of any non-compliance or potential non-compliance.
- When and how any non-compliance or PNC has been reported to the CEO
- Assessment and recording of the extent of and impacts associated with any non-compliance or PNC, where applicable.
- Determination and recording of the cause(s) of any non-compliance or PNC.
- Remedial and/or corrective action(s), if any, taken or proposed to be taken in response to the non-compliance or PNC; and
- What measures, if any, were in place to prevent the non-compliance or PNC before it occurred and what, if any, amendments have been made to those measures to prevent re-occurrence.



6.4 Public availability of Compliance Assessment Reports

Monitoring data, evidence, this CAP, annual CARs and Statements of Compliance relating to Carlton Plain Stage 1 will be made publicly available in accordance with the *Post Assessment Guideline for Making Information Publicly Available* (OEPA 2012c), and in accordance with amendments to this guidance as may occur from time to time.

6.5 Next Compliance Assessment Report

The next CAR for Carlton Plain Stage 1, for the period 1 January 2021 to 31 December 2021 is required to be submitted to DWER by 31 March 2022.



7.0 KAI response to previous CAR findings

7.1 Review of previous audit findings

The previous assessment of KAI's compliance with the requirements of Statement 1081 for the period 11 September 2018 to 10 September 2019 indicated potential non-compliances per Table 8.

Correspondence between DWER and KAI regarding the PNCs (per evidence items 2020.1081.M1.1a and 2020.1081.M1.1b) included advice from DWER stating *“the department has revised the information provided and consider the actions to be appropriate and the non-compliances to be resolved”* (DWER, 25 March 2020).

The CAR for the period 11 September 2019 to 31 December 2019, which was prepared per the CAP proposal to align the reporting period with calendar years (and therefore land development and production seasons) was prepared in March 2020. Due to an administrative error, the CAR for the three-month period was not submitted to DWER. However, evidence supporting the September-December CAR was uploaded to KAI's website in April 2020, and the relevant compliance report is also available on that website.

The September-December 2019 CAR is submitted with the 2020 CAR (this document). There were no additional PNCs identified in the September-December 2019 CAR which were not already identified in the 2018-2019 report.



Table 7 – Progress in relation to potential non-compliances reported in previous CARs

Audit code	Subject	Requirement	Previous Audit finding	Audit commentary (see Attachment 1, Table 1)	Recommended mitigation	Status (at 16 March 2020)	Update (at 31 December 2020)
1081:M1.1	Proposal Implementation	When implementing the proposal, the proponent shall not exceed the authorised extent of the proposal as defined in Table 2 of Schedule 1, unless amendments to the proposal and the authorised extent of the proposal have been approved under the EP Act.	PNC	A Section 45c application to vary MS1081 has been submitted to DWER. This application requests minor boundary amendments and an overall decrease in the area to be cleared by 110ha. This variation application was submitted retrospectively in some locations (eg near pumbsite 2 and the eastern entrance track). See evidence item 2019.1081.M1.1a	Advice be obtained from the EPA in relation to the s45C application and response implemented accordingly.	KAI provided a written response to DWER queries on 10 March 2020. Allowing for mapping error calculations, there is approximately 12.64ha cleared outside of the approved alignment.	The Section 45c application remained under consideration by DWER at the end of the reporting period. At the time of preparation of this 2020 CAR, it is understood that DWER is finalising its recommendations to the EPA regarding the Section 45c request. Evidence item 2020.1081.M1.1a provides KAI's response to DWER queries about previous PNCs. 2020.1081.M1.1b is a letter from DWER indicating resolution of the PNCs from the September 2018-September 2019 CAR.
1081:M4.5	Compliance Reporting	The proponent shall advise the CEO of any potential non-compliance within seven (7) days of that non-compliance being known.	PNC	The Section 45C variation application was submitted retrospectively, with boundary adjustments (particularly in relation to the entrance track) already initiated. See evidence item 2019.1081.M1.1a	As above.	<i>This is a report timing matter which KAI has noted.</i>	It is understood that this timing PNC is resolved. Evidence item 2020.1081.M1.1b provides a letter from DWER indicating resolution of the PNCs from the September 2018-September 2019 CAR, but does not mention this item.
1081:M5.1	Public Availability of Data	Subject to condition 5-2, within a reasonable time period approved	PNC	At the time of compliance assessment, KAI's website was undergoing	Documents to be made publicly available when	KAI will make available on its website its environmental monitoring data relating to Carlton Plain by 30 April 2020, in	KAI uploaded to its website compliance evidence and reports for the period September 2018 to September 2019, and for the period



Audit code	Subject	Requirement	Previous Audit finding	Audit commentary (see Attachment 1, Table 1)	Recommended mitigation	Status (at 16 March 2020)	Update (at 31 December 2020)
		<p>by the CEO of the issue of this Statement and for the remainder of the life of the proposal the proponent shall make publicly available, in a manner approved by the CEO, all validated environmental data (including sampling design, sampling methodologies, empirical data and derived information products (e.g. maps)) relevant to the assessment of this proposal and implementation of this Statement.</p>		<p>reconstruction, and monitoring data was not publicly available.</p>	<p>website is re-established.</p>	<p>order to rectify this non-compliance.</p>	<p>September 2019 to December 2019, in April 2020. DWER was advised of this upload by email on 30 April 2020.</p> <p>See 2020.1081.M5.1a, 2020.1081.M5.1b, and 2020.1081.M1.1b</p>

8.0 Findings

8.1 Audit results

This Compliance Assessment Report did not identify additional non-compliances, potential non-compliances or negative environmental outcomes on Carlton Plain and surrounding areas, during the 2020 calendar year. Potential Non-Compliances (PNCs) have been applied to Statement 1081 conditions M4.3 and M4.6 due to the September-December 2019 CAR not being submitted by 31 March 2020 per the approved CAP. Both PNCs are considered administrative and consequently mitigated with the submission of the September-December 2019 CAR with the 2020 CAR.

8.2 Recommended changes to the Compliance Assessment Plan

Following the submission and acceptance of the September to December 2019 CAR, the compliance reporting period for Carlton Plain Stage 1 was proposed to revert to calendar years (1 January to 31 December), with annual compliance reports due by 31 March in the following year. It is noted that the September to December 2019 CAR was inadvertently not submitted to DWER when completed in March 2020. Nevertheless, the change to a calendar year compliance period has commenced with this 2020 report, per the CAR.

8.3 Recommendations for improved environmental management

This report makes the following suggestions to improve the implementation of Statement 1081 and the associated Carlton Plain EMP:

CP1.FV.3.6 Weed management

It is recommended that control options be considered to remove impenetrable weed infestations in those parts of the vegetation retention areas which remain in poor condition due to weed presence.

CP1.TE.5.1 Soil salinity / CP1.TE.6.1 Soil sodicity

It is recommended that further analysis of soil sampling records is undertaken in conjunction with groundwater data analysis per CP1.HP.10.1.

CP1.HP.10.1 Groundwater monitoring

Further analysis of data from their-situ loggers, in conjunction with laboratory results and field records, is recommended.

8.4 Recommended changes to the Environmental Management Plan

Previous recommended changes to the Carlton Plain EMP, as follows, remain unchanged, and await DWER's decision on the Section 45c amendment request:

1. Replacement of the word 'transect' with 'quadrat' in CP1.FV.2.1, CP1.FV.2.2, CP1.FV.2.3 and CP1.FV.3.1.
2. Clarification that the 3mgbl trigger and 2mgbl threshold groundwater levels indicated in CP1.HP.10.1 *are applicable to measurements taken from bores located on or immediately adjacent (within 100m) of irrigated areas on Carlton Plain, and not to bores located outside of the irrigated fields within the development area.* This clarification accounts for bores located in or near areas



of existing groundwater expression/discharge to the west of House Roof Hill, where groundwater levels are naturally at, near or above ground surface.

3. Updating of bore locations in relevant plans and references contained in the EMP.
4. In relation to Carlton wetland water quality (CP1.IW.13.2), the triggers for total N, total P, EC, pH and TSS be reviewed after three years of testing, following review of pre-irrigation and post-development actual water quality data. Testing in 2019 indicated natural levels higher than the triggers noted in the EMP, which were adopted from the triggers used for Ord Stage 1 in free-flowing freshwater. Carlton wetland is not free flowing, so locally specific triggers should be determined after three years of baseline data collation.
5. The 2019 comparison indicated that in the pre-development, dry season state, following two successive lower-than-average rainfall seasons, that Carlton wetland exceeded initial triggers for Total N, Total P and TSS. There is insufficient data to draw baseline conclusions, however ongoing monitoring will inform the understanding of the natural wetland water quality. It is also noted that the triggers contained in EMP Table E.1 are adopted from Ord Stage 1 flowing water triggers (as opposed to stagnant water per the wetland state). It is expected that a review of the triggers will be required once sufficient baseline data is obtained.



9.0 References

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Kimberley Boab Consulting, 2018, Carlton Plain Stage 1 Environmental Management Plan August 2018. Prepared for Kimberley Agricultural Investment Pty Ltd, Kununurra. Available from www.kai-australia.com.au

Kimberley Boab Consulting, 2019, Carlton Plain Stage 1 – Irrigated Agriculture Compliance Assessment Report 2018-2019. Prepared for Kimberley Agricultural Investment Pty Ltd, Kununurra.

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Office of Environmental Protection Authority (OEPA) 2012a, *Post Assessment Guideline for Preparing a Compliance Assessment Plan*, OEPA, Perth. [PAG 2]. Available at: <http://epa.wa.gov.au/compliance-assessment-plan>

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Office of Environmental Protection Authority (OEPA) 2012c, *Post Assessment Guideline for Making Information Publicly Available*, OEPA, Perth. [PAG 4]. Available at: <http://epa.wa.gov.au/making-information-publicly-available>

Office of Environmental Protection Authority (OEPA) 2012d, *Post Assessment Guideline for Preparing a Compliance Assessment Report*, OEPA, Perth. [PAG 3]. Available at: <http://epa.wa.gov.au/preparing-compliance-assessment-report>



ATTACHMENT 1 – Compliance status terms

Compliance Status Terms	Abbrev	Definition	Notes
Compliant	C	Implementation of the proposal has been carried out in accordance with the requirements of the audit element.	This term applies to audit elements with: <ul style="list-style-type: none"> ongoing requirements that have been met during the reporting period; and requirements with a finite period of application that have been met during the reporting period, but whose status has not yet been classified as 'completed'.
Completed	CLD	A requirement with a finite period of application has been satisfactorily completed.	This term may only be used where: <ul style="list-style-type: none"> audit elements have a finite period of application (e.g. construction activities, development of a document); the action has been satisfactorily completed; and the DWER has provided written acceptance of 'completed' status for the audit element.
Not required at this stage	NR	The requirements of the audit element were not triggered during the reporting period.	This should be consistent with the 'Phase' column of the audit table.
Potentially Non-compliant	PNC	Possible or likely failure to meet the requirements of the audit element.	This term may apply where during the reporting period the proponent has identified a potential non-compliance and has not yet finalized its investigations to determine whether non-compliance has occurred.
Non-compliant	NC	Implementation of the proposal has not been carried out in accordance with the requirements of the audit element.	This term applies where the requirements of the audit element are not "complete" have not been met during the reporting period.
In Process	IP	Where an audit element requires a management or monitoring plan be submitted to the DWER or another government agency for approval, that submission has been made and no further information or changes have been requested by the DWER or the other government agency and assessment by the DWER or other government agency for approval is still pending.	<p>The term 'In Process' may not be used for any purpose other than that stated in the Definition Column.</p> <p>The term 'In Process' may not be used to describe the compliance status of an implementation condition and/or procedure that requires implementation throughout the life of the project (e.g. implementation of a management plan).</p>



Attachment 2 – Statement 1081 and Carlton Plain Stage 1 EMP Audit Tables

Audit tables for Statement 1081 and *Carlton Plain Stage 1 EMP* are presented in Attachment 2 Tables 1 and 2 respectively.

In the event of uncertainty or for clarification, refer to the Statement or EMP.



Attachment 2: Carillon Plain Stage 1 Statement 1081 and EMP Audit Tables

Attachment 2 Table 1 - Statement 1081 Audit Table: January 1 2020 to December 31 2020

Notes:

- Phases that apply in this table = Pre-Construction, Construction, Operation, Decommissioning, Overall (several phases).
- This audit table is a summary and timetable of conditions and commitments applying to this project. Refer to the Minister's Statement for full detail/precise wording of individual elements.
- Code prefixes: M = Minister's condition, P = Proponent's commitment.
- Acronyms list: CEO = Chief Executive Officer of OEPA; DEC = Department of Parks and Wildlife; DIA = Department of Indigenous Affairs; DMP = Department of Mining and Petroleum; DWER = Department of Water and Environmental Regulation; EPA = Environmental Protection Authority; DoH = Department of Health; DoW = Department of Water, Minister for Env = Minister for the Environment; OEPA = Office of the Environmental Protection Authority.
- Compliance Status: C = Compliant, CLD = Completed, NA = Not Audited, NC = Non-compliant, NR = Not Required at this stage. Please note the terms VR = Verification Required and IP = In Process are only for OEPA use.

Audit Code	Subject	Requirement	How	Evidence	Phase	Timeframe	Status	Further Information
1081:M1.1	Proposal Implementation	When implementing the proposal, the proponent shall not exceed the authorised extent of the proposal as defined in Table 2 of Schedule 1, unless amendments to the proposal and the authorised extent of the proposal have been approved under the EP Act.	Survey and mark clearing boundaries.	Boundary GPS track logs or survey data. Aerial imagery. Water licence annual reports. Metering data.	Overall	When implementing the proposal.	C	Subject to DWER's decision on the Section 45c application to vary MS1081, evidence item 2020.1081.M1.1b indicates the previous (2019) boundary non-compliance has been resolved.
1081:M2.1	Contact Details	The proponent shall notify the CEO of any change of its name, physical address or postal address for the serving of notices or other correspondence within twenty-eight (28) days of such change. Where the proponent is a corporation or an association of persons, whether incorporated or not, the postal address is that of the principal place of business or of the principal office in the State	Written correspondence.	Correspondence to EPA.	Overall	Within twenty-eight (28) days of any change of proponent name, physical address or postal address.	C	Mr Gu Hai has been appointed CEO of KAL. All other contact details remain the same.
1081:M3.1	Time Limit for Proposal Implementation	The proponent shall not commence implementation of the proposal after five (5) years from the date of this Statement, and any commencement, prior to this date, must be substantial.	Commence prior to 11 September 2023.	Evidence of development commencement date.	Overall	By 11 September 2023.	CLD	Completed in previous reporting period. No change to this status.
1081:M3.2	Time Limit for Proposal Implementation	Any commencement of implementation of the proposal, on or before five (5) years from the date of this Statement, must be demonstrated as	Written correspondence.	Correspondence to EPA.	Overall	By 11 September 2023.	CLD	Completed in previous reporting period.

Attachment 2: Carleton Plain Stage 1 Statement 1081 and EMP Audit Tables

Audit Code	Subject	Requirement	How	Evidence	Phase	Timeframe	Status	Further Information
1081:M4.1	Compliance Reporting	substantial by providing the CEO with written evidence, on or before the expiration of five (5) years from the date of this Statement. The proponent shall prepare and maintain a Compliance Assessment Plan which is submitted to the CEO at least six (6) months prior to the first Compliance Assessment Report required by condition 4-5, or prior to implementation of the proposal, whichever is sooner.	Prepare and submit CAP to the CEO of the EPA.	Compliance Assessment Plan. Correspondence to EPA.	Overall	CAP submitted by 11 June 2019 or prior to implementation of the proposal, whichever is sooner and maintained thereafter.	CLD	Completed in previous reporting period. No change to this status.
1081:M4.2	Compliance Reporting	The Compliance Assessment Plan shall indicate: (1) the frequency of compliance reporting; (2) the approach and timing of compliance assessments; (3) the retention of compliance potential non-compliances and corrective actions taken; (5) the table of contents of Compliance Assessment Reports; and (6) public availability of Compliance Assessment Reports.	CAP content inclusions.	Compliance Assessment Plan.	Overall	CAP submitted by 11 June 2019 or prior to implementation of the proposal, whichever is sooner and maintained thereafter.	CLD	Completed in previous reporting period. No change to this status.
1081:M4.3	Compliance Reporting	After receiving notice in writing from the CEO that the Compliance Assessment Plan satisfies the requirements of condition 4-2 the proponent shall assess compliance with conditions in accordance with the Compliance Assessment Plan required by condition 4-1.	Undertake and submit annual Compliance Assessment and report to the CEO in line with CAP requirements.	Notification (from CEO) of approval of Compliance Assessment Plan. Annual CARs. Confirmation of dates of submission of annual CARs.	Overall	After receiving notice in writing from the CEO that the CAP satisfies the requirements of condition 4-2.	PNC	The September to December 2019 CAR was not submitted to DWER in the timeframe stipulated in the CAR. Evidence item 2020.1081.M4.3a September-December 2019 CAR will be submitted to DWER with this 2020 CAR. There were no PNCs in the September-December 2019 CAR which were not already identified in the previous CAR. This PNC is

Attachment 2: Carlton Plain Stage 1 Statement 1081 and EMP Audit Tables

Audit Code	Subject	Requirement	How	Evidence	Phase	Timeframe	Status	Further Information
1081:M4.4	Compliance Reporting	The proponent shall retain reports of all compliance assessments described in the Compliance Assessment Plan required by condition 4-1 and shall make those reports available when requested by the CEO.	Retain all CARs. Retain supporting documentation. Comply with CEO requests.	Compliance Assessment Reports. Supporting evidence. Requests from CEO. Confirmation of compliance with CAR requests from CEO of EPA.	Overall	Make reports available when requested by the CEO.	C	therefore considered an administrative one. This document forms the third Statement 1081 Compliance Assessment Report, and the first aligned to a full calendar year, as proposed in the CAP. Information requested by DWER in response to the 2018-2019 CAR has been provided accordingly per 2020.1081.MI.1a and 2020.1081.MI.1b.
1081:M4.5	Compliance Reporting	The proponent shall advise the CEO of any potential non-compliance within seven (7) days of that non-compliance being known.	Written advice to CEO of EPA Services.	Written notification to CEO.	Overall	Advise the CEO of a potential non-compliance within seven (7) days of that non-compliance being known.	C	This 2020 CAR is submitted with the September-December 2019 CAR. The September-December 2019 CAR was not submitted due to an administrative error, however no new PNCs were identified in that report or the 2020 report.
1081:M4.6	Compliance Reporting	The proponent shall submit to the CEO the first Compliance Assessment Report fifteen (15) months from the date of issue of this Statement addressing the twelve (12) month period from the date of issue of this Statement and then annually from the date of submission of the first Compliance Assessment Report, or as otherwise agreed in writing by the CEO. The Compliance Assessment Report shall: (1) be endorsed by the proponent's Chief Executive Officer or a person delegated to sign on the Chief Executive Officer's behalf; (2) include a statement as to whether the proponent has complied with the conditions; (3) identify all potential non-compliances and	Written advice to CEO of EPA Services. Proponent-endorsed compliance statement included in CAR. PNCs and corrective and preventative actions recorded.	Compliance Assessment Report. Evidence of submission date.	Overall	First CAR due 11 December 2019 and then annually thereafter or as otherwise agreed in writing by the CEO.	PNC	The September to December 2019 CAR was completed but not submitted to DWER in the required timeframe. The document has been uploaded to the KAI website, along with evidence items supporting the assessment. Evidence item 2020.1081.M4.3a September-December 2019 CAR will be submitted to DWER with this 2020 CAR. There were no PNCs in the September-December

Attachment 2: Carlton Plain Stage 1 Statement 1081 and EMP Audit Tables

Audit Code	Subject	Requirement	How	Evidence	Phase	Timeframe	Status	Further Information
1081:M5.1	Public Availability of Data	describe corrective and preventative actions taken; (4) be made publicly available in accordance with the approved Compliance Assessment Plan; and (5) indicate any proposed changes to the Compliance Assessment Plan required by condition 4-1.	Evidence of public availability included. Proposed changes to CAP included.	Proponent website includes required data.	Overall	Within a reasonable time period approved by the CEO.	C	2019 CAR which were not already identified in the previous CAR. This PNC is therefore considered an administrative one. KAI continued to liaise with DWER staff regarding reporting and the Section 45c application during the 2020 year. Advice was provided to DWER on 30 April 2020 indicating the uploading of 2019 evidence data. Refer to 2020.1081.M5.1a 2020.1081.M5.1b 2020.1081.M1.1b
1081:M5.2	Public Availability of Data	Subject to condition 5-2, within a reasonable time period approved by the CEO of the issue of this Statement and for the remainder of the life of the proposal the proponent shall make publicly available, in a manner approved by the CEO, all validated environmental data (including sampling design, sampling methodologies, empirical data and derived information products (e.g. maps)) relevant to the assessment of this proposal and implementation of this Statement. If any data referred to in condition 5-1 contains particulars of: (1) a secret formula or process; or (2) confidential commercially sensitive information; the proponent may submit a request for approval from the CEO to not make these data publicly available. In making such a request the proponent shall provide the CEO with an explanation and reasons why the data should not be made publicly available.	Upload data to website or other public access option. Written request to CEO of EPA is to not be made publicly available.	Written advice to and from CEO of EPA.	Overall	For the life of the proposal.	NR	Not required at this stage.
1081:M6.1	Operational Environmental Management Plan Implementation	The Proponent shall ensure implementation of the proposal achieves the following environmental outcomes: (1) no irreversible loss of, or serious damage to the riparian vegetation zone outside of the development envelope; (2) no long-term impacts on the environmental values of the Ord River, including: (a) vegetation	Implement Carlton Plain Stage 1 EMP.	Compliance assessment of EMP implementation.	Overall	For the life of the proposal.	C	Site inspection and monitoring reports indicate there is no evidence to suggest - (1) irreversible loss of, or serious damage to the riparian vegetation zone outside of the development envelope; (2)

Attachment 2: Carlton Plain Stage 1 Statement 1081 and EMP Audit Tables

Audit Code	Subject	Requirement	How	Evidence	Phase	Timeframe	Status	Further Information
		community structure and composition; (b) water quality; (c) ecosystem processes; and (3) no long-term impacts to the Aboriginal heritage values linked to the physical and/or biological surroundings of the Ord River.						long-term impacts on the environmental values of the Ord River, including: (a) vegetation community structure and composition; (b) water quality; (c) ecosystem processes; and (3) long-term impacts to the Aboriginal heritage values linked to the physical and/or biological surroundings of the Ord River. A revised EMP was submitted to DWER with the request for s45C variation in October 2019. Recommendations from the 2018-2019 CAR will be incorporated when approved by DWER. EMP compliance evidence items are summarised in Attachment 3 (Evidence Registry).
1081:M6.2	Operational Environmental Management Plan Implementation	The proponent shall implement the <i>Carlton Plain Stage 1 Environmental Management Plan</i> (Rev 0.1, August 2018) (the Plan), until the CEO has confirmed by notice in writing that the Plan meets the environmental outcomes required by condition 6-1.	Implement Carlton Plain Stage 1 EMP.	Compliance assessment of EMP implementation.	Overall	Until the CEO has confirmed by notice in writing that the Plan meets the environmental outcomes required by condition 6-1.	C	Table 2 reports on compliance with individual EMP requirements.
1081:M6.3	Operational Environmental Management	The proponent shall implement the most recent version of the Plan which the CEO has confirmed by notice in writing, addresses the requirements of condition 6-1.	Implement Carlton Plain Stage 1 EMP.	Compliance assessment of EMP implementation.	Overall	Until the CEO has confirmed by notice in writing that the	C	The Proponent has implemented EMP dated August 2018 per Table 2, during the reporting period.

Attachment 2: Carlton Plain Stage 1 Statement 1081 and EMP Audit Tables

Audit Code	Subject	Requirement	How	Evidence	Phase	Timeframe	Status	Further Information
1081.M6.4	Operational Environmental Management Plan Implementation	In the event that monitoring carried out under the Plan, determines that any of the environmental outcomes set in condition 6-1 are not being achieved by implementing the proposal, the Proponent shall: (1) immediately implement the contingency management actions specified in the Plan, and continue implementation of those actions until the CEO has determined that the environmental outcomes set in condition 6-1 are being achieved and will continue to be achieved; (2) investigate to determine the likely cause of the environmental outcomes set in condition 6-1 not being achieved; (3) within seven (7) days of determining that any of the environmental outcomes set in condition 6-1 are not being achieved, report the non-achievement to the CEO; (4) within twenty-one (21) days of determining that any of the environmental outcomes set in condition 6-1 are not being achieved submit to the CEO a report detailing the following: (a) the results of the monitoring that led to the determination that any of the environmental outcomes set in condition 6-1 are not being achieved; (b) the investigation being undertaken as required by condition 6-4(2) into the cause of the environmental outcomes set in condition 6-1 not being achieved; and (c) any contingency management actions implemented by the proponent following determination that any of the environmental outcomes set in	Investigate reason(s) for outcomes not being met. Review monitoring data and procedures. Review level of compliance with procedures. Implement contingencies (where required). Report within required timeframes.	Reviewed data, timestamped where possible. Evidence of contingency responses implemented. Written notices and report(s) to CEO of EPA.	Overall	Plan meets the environmental outcomes required by condition 6-1. Report the non-achievement of the environmental outcomes set in condition 6-1 within seven (7) days. Submit to the CEO a report within twenty-one (21) days. Provide an investigation report CEO within sixty (60) days.	C	Monitoring data does not indicate that the environmental outcomes set in Condition 6-1 are not being achieved.

Attachment 2: Carlton Plain Stage 1 Statement 1081 and EMP Audit Tables

Audit Code	Subject	Requirement	How	Evidence	Phase	Timeframe	Status	Further Information
1081:M6.5	Operational Environmental Management Plan Implementation	<p>condition 6-1 are not being achieved, (5) provide a report detailing the findings of the investigation required by condition 6-4(2) to the CEO within sixty (60) days of first determining that any of the environmental outcomes set in condition 6-1 are not being achieved.</p> <p>The proponent shall submit to the CEO annual compliance assessment reports in accordance with condition 4-6 which includes: (1) all monitoring data and reportable incidents required by conditions 6-3 and 6-4; (2) an analysis and interpretation of monitoring data to demonstrate compliance with the requirements of condition 6-1; and (3) an assessment of the effectiveness of monitoring, management and contingency measures implemented to ensure compliance with the requirements of conditions 6-1.</p>	<p>Submit annual Compliance Assessment Report and monitoring data.</p> <p>Interpret and submit monitoring data.</p> <p>Assess effectiveness of management, monitoring and contingency measures.</p>	<p>Reports and correspondence submitted to EPA by 31 March of the year following the reporting period.</p>	Overall	For the life of the proposal.	C	Attachment 2 Table 2 addresses compliance in implementing the Carlton Plain EMP. Commentary in Table 2, supported by site inspection documentation and photographic evidence, supports the conclusion that the monitoring and management had been effective to date during this initial construction period.
1081:M6.6	Operational Environmental Management Plan Implementation	<p>Any changes to trigger criteria, threshold criteria, monitoring, trigger level actions, threshold contingency actions or reporting and/or any changes to management targets, management actions, monitoring and reporting in the Plan must be approved by the CEO in writing.</p>	<p>Submit recommended EMP changes to the CEO of the EPA.</p>	<p>Recommended changes and correspondence to EPA.</p> <p>Correspondence from EPA approving changes prior to any changes being adopted / implemented.</p>	Overall	For the life of the proposal.	C	Recommended changes to the EMP have been provided to DWER with the 2019 Section 45c application. KAI is awaiting approval on these changes.

Attachment 2 Table 2 - Carlton Plain Stage 1 EMP Audit Table

EMP AUDIT CODE	SUBJECT / KEY PROVISION	REQUIREMENT	HOW	EVIDENCE	PHASE	TIMEFRAME	STATUS	FURTHER INFORMATION
CP1.FV.1.1	Establish a minimum 100m setback between the Ord River and the boundary of irrigated fields, for the purpose of maintaining riparian function and a biodiversity corridor.	Minimum riparian setback 100m.	Develop layout planning includes minimum 100m setback.	Project plans.	Pre-construction	2018	CLD	100m minimum setback from the Ord River was included in all project plans submitted for the original Statement 1081 approval, per the EMP. <i>No change to this status.</i>
CP1.FV.1.2	100m minimum riparian setback.	Clearing boundaries marked and adhered to.	Inspect initial clearing to ensure boundary lines along the Ord River meet requirements.	Site inspection. Aerial imagery.	Construction	2019	CLD	Site inspections and satellite imagery previously confirmed the retention of 100m minimum setbacks. <i>No change to this status.</i>
CP1.FV.1.3	100m minimum riparian setback.	Monitor riparian setbacks in vegetation retention areas. Report substantial changes to river trajectory to DWER (Kununurra) within 60 days of wet season rains or flood events or when access becomes available.	Annual inspections post-wet season to ensure no significant riverine scours or riverine trajectory changes affect irrigated fields on narrow (~100m) boundaries or restrict biodiversity corridors. Measurements to be undertaken using annual GPS field survey at narrowest points.	Site inspections. Aerial imagery. GPS track logs. Photographic records of scours. Correspondence to DWER (Kununurra) within 60 days of identification of significant river path change.	Overall.	Ongoing from commencement.	C	Site inspections and satellite imagery confirm the retention of 100m minimum setbacks. <i>No change to this status.</i>
CP1.FV.2.1	No decline in the long term vegetation condition rating in	Establish vegetation condition transects in vegetation retention area.	Establish a minimum of five (5) 10m x 10m monitoring sites per EMP Appendix B specifications.	Photographic records. GPS coordinates.	Pre-construction	Initial EMP date (2018) unable to be met due to	CLD	Per the September 2018-September 2019 CAR, the term 'transect' has been interpreted to mean 'quadrat' based on the description of 10m x 10m monitoring sites. Ten vegetation monitoring sites

Attachment 2: Carlton Plain Stage 1 Statement 1081 and EMP Audit Tables

EMP AUDIT CODE	SUBJECT / KEY PROVISION	REQUIREMENT	HOW	EVIDENCE	PHASE	TIMEFRAME	STATUS	FURTHER INFORMATION
	vegetation retention areas, compared to initial 2016 dry season baseline surveys and subsequent transect establishment surveys.		Select sites based on representative soil and vegetation types, practical accessibility, proximity to Ord River, wetland area and House Roof hill.	Site establishment notes. Aerial imagery.		late dry season approval of EMP. To be undertaken dry season 2019.		were established in vegetation retention areas 2019. This item was completed in a previous reporting period. Monitoring sites remain in place and are simultaneously used for soil condition/erosion monitoring in the vegetation retention areas, and weed inspections per CPI.FV.3.1.
CPI.FV.2.2	Vegetation condition transect monitoring.	Annual dry season inspection of monitoring sites.	Inspect for vegetation type, condition, weed presence and erosion. Auditor note: <i>The term 'transect' has been interpreted to mean 'quadrat' based on the description of 10m x 10m monitoring sites, per CPI.FV.2.1.</i>	Photographic records. Aerial imagery. Field notes.	Overall	By August 31 of each year.	C	Vegetation condition monitoring was completed in April and May 2020, per evidence item 2020.CP1.FV2.2a (field records) 2020.CP1.FV2.2b-j (sample site photographs) Site photography records to have been retained and catalogued by KAI to visually document changes. Examples are included in the evidence compilation for this report. Additional photographs are available on request (due to quantity and file size). Vegetation monitoring sites are indicated in Attachment 3b (appended to this document).
CPI.FV.2.3	Management response if vegetation condition monitoring indicates decline.	Where vegetation condition rating declines in 60% of vegetation retention zone monitoring sites, as assessed during annual dry season inspections. Seasonal conditions including rainfall and fire will be taken into account in condition assessments.	In the event that condition declines in the vegetation retention areas in relation to the 2016 and subsequent transect establishment surveys, the proponent will: 1. Remove cattle if overgrazing is considered a factor if condition has declined. Occasional use of cattle are considered essential as	Photographic records. Aerial imagery. Monitoring records. Correspondence of vegetation condition decline forwarded to EPA services within 30 days	Overall	As required if monitoring indicates 60% of sites in decline.	NR	Not required. Sixty per cent of sites are not in decline. Inspection records indicate some improvement across most sites, likely due to the removal of the majority of cattle. Sites 5, 6 and 10 remain in poor condition (per the original 2016 vegetation condition assessment) largely due to pre-existing riparian weed infestations and other pre-development disturbances. Erosion was not reported as being present.

Attachment 2: Carlton Plain Stage 1 Statement 1081 and EMP Audit Tables

EMP AUDIT CODE	SUBJECT / KEY PROVISION	REQUIREMENT	HOW	EVIDENCE	PHASE	TIMEFRAME	STATUS	FURTHER INFORMATION
		<p>The WARMs condition assessment rating method will be adopted.</p> <p>Vegetation condition in any given season can be directly affected by one-off incidents such as wildfire and/or poor (or extremely erosive) wet seasons.</p>	<p>a mechanical weed management tool in lieu of chemical weed control, particularly in the vicinity of the Ord River and the Carlton Plain wetland area.</p> <p>2. Amend the fire regime if fire is considered a factor in vegetation condition decline.</p> <p>3. Address weed management, per CP1.FV.3.</p> <p>4. Establish [annual] targets for vegetation condition improvement based on the extent of variation from vegetation condition goal and current climatic seasonal conditions.</p>	<p>of vegetation condition surveys being undertaken.</p>				
CP1.FV.2.4	Vegetation condition threshold indicator observed.	Where decline in vegetation condition ratings is registered across all monitoring sites in a given year.	As assessed using WARMs program described in EMP Appendix B Table B1.3.	<p>Photographic records.</p> <p>Aerial imagery.</p> <p>Field notes.</p> <p>Monitoring records.</p> <p>Correspondence of vegetation condition decline forwarded to EPA services</p>	Overall	If monitoring indicates all sites in vegetation decline.	NR	Not required. Monitoring has not indicated that all sites are in decline. Refer to CP1.FV.2.2 and CP1.FV.2.3.

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EMP AUDIT CODE	SUBJECT / KEY PROVISION	REQUIREMENT	HOW	EVIDENCE	PHASE	TIMEFRAME	STATUS	FURTHER INFORMATION
CPI.FV.3.1	No new Weeds of National Significance, Declared Pest weed species or introduced crop species in vegetation retention areas compared to 2016 dry season baseline surveys and transect establishment surveys.	Establish transects (per CPI.FV.2.1).	Establish a minimum of five (5) 10m x 10m monitoring sites per EMP Appendix B specifications. Select sites based on representative soil and vegetation types, practical accessibility, proximity to Ord River, wetland area and House Roof hill.	within 30 days of vegetation condition surveys being undertaken. Photographic records. GPS coordinates. Field notes. Aerial imagery.	Pre-construction	Completed dry season 2019.	CLD	The term 'transect' has been interpreted to mean 'quadrat' based on the description of 10m x 10m monitoring sites, per CPI.FV.2.1.
CPI.FV.3.2	Annual weed inspections.	Annual dry season inspection of monitoring sites.	Inspect for weed presence.	Photographic records. Aerial imagery. Field notes.	Overall	By August 31 of each year.	C	Weed presence is recorded in field records and vegetation condition site photographs per CPI.FV.2.1.
CPI.FV.3.3	Triennial weed mapping.	Triennial weed assessments in vegetation retention areas.	Weed inspections across vegetation retention areas.	Photographic records. GPS coordinates. Field notes. Aerial imagery. Triennial weed survey report.	Overall	Commencing 3 years after construction begins.	NR	Not yet required.
CPI.FV.3.4	No new Weeds of National Significance or Declared Pest weed species	Utilise monitoring data to ensure compliance with Threshold Indicator.	Weed inspections and analysis of monitoring data.	Photographic records. Site inspection field notes.	Overall	Ongoing.	C	No new Weeds of National Significance or Declared Pest and Weed species were observed during the compliance period.

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EMP AUDIT CODE	SUBJECT / KEY PROVISION	REQUIREMENT	HOW	EVIDENCE	PHASE	TIMEFRAME	STATUS	FURTHER INFORMATION
	established in vegetation retention areas.	Threshold exceedance occurs if new Weeds of National Significance or Declared Pest plant species establish or 100% of monitoring sites show increased weed coverage.		Correspondence to DWER within 30 days of surveys.				
CP1.FV.3.5	Introduced crop species identified.	Where introduced crop species are identified in the Carlton wetland vegetation retention areas adjacent to the Carlton Stage 1 area, notification to the Department of Biodiversity, Conservation and Attractions will occur within 30 days of identification.	Monitor vegetation areas for crop weed species.	Written evidence of advice to DBCA.	Overall	Report to Department of Biodiversity, Conservation and Attractions within 30 days of identification.	NR	Not yet required.
CP1.FV.3.6	Weed management response.	Weed control to be undertaken as required under statutory obligations through the Biosecurity and Agriculture Management (BAM) Act 1987, and/or through the mechanisms listed under 'How'.	<ol style="list-style-type: none"> Physical (including grazing if deemed appropriate) or chemical treatment of declared weeds or Weeds of National Significance if found in Carlton Plain Stage 1 area during annual CP1.FV.2 condition monitoring. Weed control/removal and/or rehabilitation 	<p>Site inspection records. Field notes. Photographic evidence. Spray records. Triennial weed survey reports. Written evidence of advice to DBCA. Evidence of liaison with</p>	Overall	From commencement	C	<p>Previous finding is retained: Rubber bush (<i>Calotroxis procerca</i>), a Declared Weed in Western Australia, was widely present on Carlton Plain and across the East Kimberley prior to the commencement of development.</p> <p>Clearing has removed large quantities of <i>Calotroxis procerca</i>, restricting the available local seed source which could further infest vegetation retention areas.</p>

Attachment 2: Carlton Plain Stage 1 Statement 1081 and EMP Audit Tables

EMP AUDIT CODE	SUBJECT / KEY PROVISION	REQUIREMENT	HOW	EVIDENCE	PHASE	TIMEFRAME	STATUS	FURTHER INFORMATION
		Where investigations show that the spread of introduced crop species into adjacent or nearby environmentally sensitive areas is attributable to this proposal, the proponent shall liaise with landholders to remove introduced crop species plants.	<p>of weed infested areas if weed coverage in vegetation retention areas is shown to increase.</p> <p>3. Specific weed control mechanism to be determined on case by case situation, dependent upon location of weed, type of weed, and other environmental risks caused by removal of weed (e.g. exacerbated erosion).</p> <p>4. In the case where introduced crop species are detected in the vegetation retention area:</p> <p>a) Remove the introduced crop species from the vegetation retention area;</p> <p>b) Investigate whether the species have spread to adjacent environmentally sensitive areas outside of the proponent's freehold area, or the Carlton wetland;</p> <p>c) If the proponent's investigations identify</p>	neighbouring properties to remove weeds attributable to Carlton Plain Stage 1.				<p>Weed infestations have continued in vegetation condition sites 5 and 10 (both near to the Ord River).</p> <p><i>It is recommended that control options be considered to remove impenetrable weed infestations in those parts of the vegetation retention areas which remain in poor condition due to weed presence.</i></p>

Attachment 2: Carlton Plain Stage 1 Statement 1081 and EMP Audit Tables

EMP AUDIT CODE	SUBJECT / KEY PROVISION	REQUIREMENT	HOW	EVIDENCE	PHASE	TIMEFRAME	STATUS	FURTHER INFORMATION
CP1.FV.4.1	In the event that decommissioning is to occur, rehabilitate cleared land to a fair-to-good rangeland condition rating within five years of cessation of irrigation.	Prepare and implement decommissioning plan.	the spread of crop species to adjacent environmentally sensitive areas or the Carlton wetland, notify the Department of Biodiversity, Conservation and Attractions so that it can be determined whether further investigations are warranted for nearby environmentally sensitive areas, including the Parry Nature Reserve. Detailed decommissioning plan to include rehabilitation management and weed control.					
CP1.FV.4.2	Decommissioning and rehabilitation management.	Decommissioning and rehabilitation plan implemented.	1. Remove and appropriately recycle or dispose of all infrastructure include pipes, culverts and other farm equipment. 2. If not required for non-irrigation use of farmland, return land	Decommissioning plan. Rehabilitation work records. Photographs and aerial imagery. Field / site inspection and monitoring reports.	Decommissioning	Within 5 years of cessation of irrigation.	NR	Not yet required.
				Decommissioning plan. Rehabilitation work records. Photographs and aerial imagery. Field / site inspection and monitoring reports.	Decommissioning	Within 5 years of cessation of irrigation.	NR	Not yet required.



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EMP AUDIT CODE	SUBJECT / KEY PROVISION	REQUIREMENT	HOW	EVIDENCE	PHASE	TIMEFRAME	STATUS	FURTHER INFORMATION
CP1.FV.4.3	Post-rehabilitation monitoring.	Monitor six-monthly monitoring of rehabilitation. <u>Trigger indicator:</u> Five years post-rehabilitation WARMs combined vegetation condition and soil erosion targets across 60% of all monitoring sites to have a minimum fair-to-good rating (based on Table B1.4 of EMP Appendix B) [or equivalent Keightery scale 'good to	<p>formation to original topography, per natural contours noted in EMP Appendix B, including the in-fill of drains and channels and removal of hillside and other levee banks.</p> <p>3. Post-irrigation land use to be congruent with surrounding land use.</p> <p>4. Monitor for natural revegetation / re-growth and erosion, per methodology contained in EMP Appendix B.</p> <p>1. Six-monthly rehabilitation inspections for species type, density, weed coverage, post-decommissioning.</p> <p>2. Inspections to occur each dry season for five years following decommissioning, reducing to biennially (unless threshold indicator management responses are required), such that ten years' post-decommissioning rehabilitation assessment can occur.</p>	Field / site inspection and monitoring reports. Photographs and aerial imagery.	Decommissioning	Inspect six-monthly for five years after rehabilitation. Every two years after the first five years, up to 10 years monitoring in total.	NR	Not yet required.

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EMP AUDIT CODE	SUBJECT / KEY PROVISION	REQUIREMENT	HOW	EVIDENCE	PHASE	TIMEFRAME	STATUS	FURTHER INFORMATION
		<p>excellent' vegetation condition rating]. <u>Threshold indicator:</u> Minimum rating of 'fair' under WARMS method [or equivalent Keighery method] is achieved in only 40% (or less) of all rehabilitation monitoring sites five years after decommissioning.</p>	<p>3. Monitoring to include comparison with adjacent landscape through use of WARMS data from nearby sites.</p>					
CPL.FV.4.4	Five-year post-rehabilitation management contingency.	<p>In the event that the trigger indicator (60%) of sites do not meet the target condition rating after 5 years, or the threshold (minimum) indicator of only 40% of sites meets the required 'fair to good' rangelands combined erosion/vegetation condition status after five years, implement responses listed under 'How'.</p>	<ol style="list-style-type: none"> 1. Undertake weed management to mitigate rehabilitation and revegetation efforts. 2. Reform land through mechanical means to reduce erosion/scouring if present. 3. Reduce or prevent grazing pressures through feral or domestic animals (cattle). 4. Amend fire regimes to reduce impact on natural regeneration. 5. Consider revegetation, topsoil re-spread (if available) or seeding if considered practicable. 	<p>Field / site inspection and monitoring reports. Photographs and aerial imagery. Monitoring reports.</p> <p>Correspondence to DWER within 30 days of surveys indicating inability to achieve a fair rating in 40% of sites post-rehabilitation.</p>	Decommissioning	From Year 5 after decommissioning and continuing until performance indicators have been met, or Year 10, whichever is later.	NR	Not yet required.

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EMP AUDIT CODE	SUBJECT / KEY PROVISION	REQUIREMENT	HOW	EVIDENCE	PHASE	TIMEFRAME	STATUS	FURTHER INFORMATION
			6. Monitor effectiveness of mitigation efforts at beginning and end of each dry season until all monitoring sites meet target 'good' condition status under WARMS condition monitoring guide.					
CPI.TE.5.1	Soil salinity levels do not exceed 400mS/m ECe in surface or 600mS/m ECe in subsurface soils (threshold indicators). Trigger indicators: 300mS/m ECe in topsoils or 500mS/m ECe in subsoils.	Monitor soil condition for evidence of soil salinity. <i>Crop yield decline may be utilised as indicator. Soil testing to be undertaken in the event of crop yield decline.</i>	Initial baseline samples, followed by annual soil testing at the end of each dry season following the commencement of irrigation, on a representative sampling regime to be established across soil types, and field locations and gradients. <i>EMP Appendix C contains initial risk and procedural information, to be refined following baseline soil testing and establishment of soil test locations on farm and in vegetation zones in the 2019 dry season.</i>	Soil sample analysis report. Map of monitoring locations. In the event that trigger levels are observed, the Commissioner for Soil and Land Conservation will be informed within 60 days.	Pre-construction and Operation	Annually at end of each dry season.	C	Soil samples were taken at 10cm and 60cm depths in April 2020, and analysed by CSBP. 2020.CPI.TE.5.1a – soil sampling site locations. 2020.CPI.TE.5.1b provides the 2020 Carlton Plain soil analysis report. This will inform baseline decision making and management decisions. The report indicates shallow (10cm) and deep (60cm) samples at 6 points across Carlton Plain. Shallow samples exhibited Ece ranging from 0.13dS/m (13mS/m) to 0.28dS/m (28mS/m). Deeper samples ranged from 0.07dS/m (7mS/m) to 2.16dS/m (21.6mS/m). <i>It is recommended that further analysis of soil sampling records is undertaken in conjunction with groundwater data analysis per CPI.HP.10.1.</i>
CPI.TE.5.2	Soil salinity mitigation.	Where an exceedance of a trigger value is identified for salinity for surface and sub soil, the corrective actions outlined	1. Identify the distribution of soil with salinity exceeding trigger levels and increase the sampling density	Soil sample analysis reports. Revised soil mapping indicating distribution of salinity.	Operation	As required.	NR	Not yet required.

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EMP AUDIT CODE	SUBJECT / KEY PROVISION	REQUIREMENT	HOW	EVIDENCE	PHASE	TIMEFRAME	STATUS	FURTHER INFORMATION
CP1.TE.6.1	Soil sodicity levels five years after commencement	under 'How' will be implemented.	<p>to define the areas above the trigger.</p> <p>2. Investigate the cause (which could include determining if salinity is due to a rise in the groundwater of whether the soil chemical status is deteriorating as a result of insufficient irrigation).</p> <p>3. Verify the adequacy of the estimated leaching rate (approximately 100 mm/a) in controlling salinity.</p> <p>4. Identify whether remedial action is required, such as installation of drainage or pumping systems or higher water use agriculture.</p> <p>5. Implement remedial actions on a trial basis in areas identified from distribution mapping.</p>	Reports or other data confirming remedial activities.	Pre-construct	Baseline samples 2019.	C	The 2020 soils report (2020.CP1.TE.5.1b) indicates exchangeable sodium (Na) ranging from 0.1 meq/L to 1.39meq/L in 0-10cm soil samples across 6

Attachment 2: Carlton Plain Stage 1 Statement 1081 and EMP Audit Tables

EMP AUDIT CODE	SUBJECT / KEY PROVISION	REQUIREMENT	HOW	EVIDENCE	PHASE	TIMEFRAE	STATUS	FURTHER INFORMATION
	of irrigation do not exceed an Exchangeable Sodium Percentage (ESP) of 10 in surface soils or 15 in subsurface soils (threshold indicators). Trigger indicators ESP 6 in surface/top soils (<100mm) and ESP 10 in subsoils (<600mm).	evidence of soil sodicity. <i>Crop yield decline may be utilised as indicator. Soil testing to be undertaken in the event of crop yield decline.</i>	soil) and 600mm (subsurface soil). <i>Per EMP Provision CP1.TE.6, revision of thresholds may occur following review of baseline data.</i>	In the event that trigger levels are observed, the Commissioner for Soil and Land Conservation will be informed within 60 days.	on and Operation	Annual sampling on each farm lot following commencement of irrigation.		locations. Subsurface soils exchangeable sodium ranged from 0.07meq/L to 14.5meq/L. Conversion to ESP and review of the baseline soil sodicity in relation to triggers and thresholds will be required. <i>It is recommended that further analysis of soil sampling records is undertaken in conjunction with groundwater data analysis per CP1.HP.10.1.</i>
CP1.TE.6.2	Soil sodicity mitigation.	Where an exceedance of a trigger value is identified for sodicity for surface and sub soil, the corrective actions outlined under 'How' will be implemented.	1. Visually identify and/or map the distribution of soil with sodicity exceeding trigger levels. This may include initial identification through crop productivity decline. 2. Investigate cause(s) (which may include determining if changes are consistent with anticipated initial response to land use change, or whether	Soil sample analysis reports. Revised soil mapping indicating distribution of sodicity. Reports or other data confirming remedial activities.	Operation	As required.	NR	Not yet required. To be considered upon review of baseline soils data and thresholds per CP1.TE.6.1.

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EMP AUDIT CODE	SUBJECT / KEY PROVISION	REQUIREMENT	HOW	EVIDENCE	PHASE	TIMEFRAME	STATUS	FURTHER INFORMATION
CPL.TE.7.1	Soil erosion (scour) is minimised where possible on fields, flood protection levees, drainage and other significant infrastructure affecting project	Scour risk occurs following significant erosion (rainfall) events. The objective is to minimise any exacerbation of this risk due to the development of farms and the construction of	<p>soil chemical status is deteriorating as a result of insufficient irrigation).</p> <p>3. Verify the adequacy of the estimated leaching rate (approximately 100 mm/a) in controlling sodicity.</p> <p>4. Identify whether remedial action is required, such as application of recommended soil ameliorants.</p> <p>5. Implement remedial action (such as the application of lime or gypsum) on a trial basis in areas identified by distribution mapping.</p> <p>1. Assess erosion damage at end of each wet season.</p> <p>2. Repair any damage to infrastructure and fields.</p> <p>3. Review and if necessary modify design implications to ensure future wet seasons do not result</p>	<p>Inspection reports. Photographic evidence of damage and repairs.</p>	Overall	At beginning of each dry season.	C	KAI reported no significant scours following 2020 wet season. Inspections undertaken April 2020 per vegetation and soils site assessment records. No evidence of significant scours during August 2020 site inspection by auditor.



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EMP AUDIT CODE	SUBJECT / KEY PROVISION	REQUIREMENT	HOW	EVIDENCE	PHASE	TIMEFRAME	STATUS	FURTHER INFORMATION
	environmental outcomes.	irrigation infrastructure.	in same environmental or infrastructure outcomes. 4. Record actions undertaken to repair erosion and prevent future damage.					
CP1.TE.7.2	Soil erosion target: No scours or severe erosion caused by design of irrigation infrastructure.	All wet season erosion is repaired prior to commencement of irrigation season in the local area in the dry season immediately following.	Repair scours (e.g. on drains) to functional condition.	Inspection reports. Photographic evidence of damage and repairs.	Overall	Nominal target completion dates May/June each year, subject to seasonal conditions.	NR	Irrigation infrastructure was not established during the reporting period. Recharge and drainage infrastructure has been constructed to maintain the ecological function of Carlton wetland. Wetland drainage inlet infrastructure is visible in evidence items 2020.CP1.TE.7.2a 2020.CP1.TE.7.2b 2020.CP1.TE.7.2c
CP1.TE.8.1	Collect baseline soil samples across representative soil types in irrigation and non-development areas, prior to commencement of irrigation.	Collect baseline soil samples prior to commencing irrigation. Sampling to include EC, pH, ESP, nutrients, across irrigation and vegetation zones.	Soils sampling procedure is contained within EMP Appendix C (Section C.3). Sites and sampling regime recorded for future reference.	Soil sample analysis report. Map of monitoring locations.	Pre-construction Construction	Prior to commencement of irrigation.	C	Refer to 2020.CP1.TE.5.1a -- soil sampling site locations. 2020.CP1.TE.5.1b -- CSBP soil analysis report. Nutrient analysis should be included in future soil reports.
CP1.TF.9.1	Control pest or plague fauna as required to minimise negative environmental impacts.	Control pest or plague fauna to locally acceptable levels.	Regular visual monitoring as part of ongoing farm management. Vegetation monitoring (per EMP Appendix B) to indicate extent and impacts of pest fauna.	Monitoring / inspection and mitigation (outcome) reports. Photographic evidence. Licences if	Overall.	As required.	C	Vegetation condition monitoring (per evidence provided under 2020.CP1.FV.2.2) includes review of fauna damage, including cattle. Comparison to previous site records indicates significantly reduced cattle numbers, particularly in the Carlton wetland area. Pest fauna was not evident during the site inspection (August 2020) or reported by KAI.



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EMP AUDIT CODE	SUBJECT / KEY PROVISION	REQUIREMENT	HOW	EVIDENCE	PHASE	TIMEFRAME	STATUS	FURTHER INFORMATION
CPI.HP.10.1	Undertake a groundwater monitoring program to observe changes in depth, and to better understand the water balance and connection between Carlton Plain Stage 1 groundwater and the Ord River.	Establish a groundwater monitoring program.	Restrict access (where possible) including mustering or culling if necessary (with appropriate licences if required). Groundwater monitoring for depth and water quality, utilising the regime recommended by Lillicrap et al, 2015 for the nearby Goomig farmlands (refer to EMP Appendix D). Install bores (with data loggers) on Carlton Plain. Locations: Initially as per EMP Figure 9 with modifications considered as farms are constructed. Management action review: Triennially.	<p>culling has occurred. Correspondence to DBCA reporting fauna pest management activities.</p> <p>Bore monitoring data. Bore locations plan. Site inspections. Drilling contractor receipts / proof of bores (re-) drilled. Triennial groundwater monitoring review.</p>	Overall.	<p>Initial EMP date of 2018 unable to be met due to late season receipt of Statement 1081.</p> <p>Bore drilling and initial sampling undertaken in 2019.</p>	C	<p>Additional bores were established in December 2019, per the evidence items listed below. The installation of bores has been amended to accommodate farm design. Refer to evidence item 2020.CPI.HP.10.1a and 2020.CPI.HP.10.1b for new Carlton bore locations and bore characteristics.</p> <p>2020.CPI.HP.10.1c and CPI.HP.10.1d provide the analysis data from Carlton Plain bore monitoring undertaken in April 2020. This is integrated into the Carlton Plain bore monitoring database in 2020.CPI.HP.10.1e.</p> <p>2020.CPI.HP.10.1f contains field monitoring records from April 2020.</p> <p>KAI advised that dataloggers have been installed on Carlton Plain bores. Further analysis of data from the loggers, in conjunction with laboratory results and field records, is recommended.</p>
CPI.HP.10.2	Trigger indicator: Groundwater depth 3 metres below ground level (mbgl). Threshold indicator: Groundwater depth 2mbgl.	Threshold reporting will occur should groundwater depth rise to 2mbgl. DWER will be advised should groundwater levels near trigger or thresholds.	Undertake depth monitoring per CPI.HP.10.1.	<p>Data logs. Monitoring records. Correspondence to DWER.</p>	Overall	Review with each monitoring round.	C	<p>It was previously reported that Initial bore monitoring records indicated depth to groundwater is less than 2mbgl in some existing bore locations (that is, prior to clearing/development), particularly on the low-lying western area outside of the Carlton Plain Stage 1 approved development area. This action is interpreted as referring to the groundwater level directly below the irrigation area that forms Carlton Plain Stage 1.</p>

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CP1.HP.10.3	Groundwater risk mitigation.	Initiate management responses to mitigate groundwater accretion risk.	<p>Manage water levels to remain below the root zone of crops – through irrigation techniques, use of trees in the farming system, pumping (ie, dewatering) or deep drainage.</p> <p>In the event that saline water accretion occurs and discharge is required, disposal downstream below the tidal zone, subject to water quality assessment and approval by DWER, would be considered.</p>	Data logs. Monitoring records. Correspondence to DWER. DWER approval of groundwater discharge (if required).	Operation	As required.	NR	<p>2020.CP1.HP.10.1e field records indicate groundwater levels were generally recorded in April 2020 as being >3mbgl, with the exception of bore Y3 at 2.9m below TOC. This is consistent with previous monitoring indicating bore Y3 depth at ~3mbgl. KAI is continuing bore monitoring to show pre-irrigation trends.</p> <p>Not yet required.</p>
CP.HP.10.4	Groundwater management review.	Triennial review of groundwater monitoring and management regime.	<p>Review data. Review monitoring regime. Initiate management and mitigation responses per CP1.HP.10.3 if required.</p>	Data logs. Monitoring records. Correspondence to DWER.	Operation	Triennial	NR	Not yet required. This action commences with Operations.
CP1.HP.11.1	Protection of Carlton wetland from farm tailwater or (average wet	Hillside drainage and internal stormwater drainage network maintained such that there is no tailwater	Install and maintain farm drainage around Carlton wetland.	Inspection reports. Photographic evidence of	Construction Operation	As required at the beginning of each dry season.	C	The Carlton wetland recharge earthworks were completed in 2020. Season 2019 saw the construction of hillside drainage from Houseroof Hill to the wetland area, to ensure adequate inflow and no mixing of farm drainage with

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	season) stormwater flow.	flow through Carlton wetland in any dry season or stormwater flow through the wetland in an average rainfall wet season.	Visual monitoring and repairs (if required) after each wet season, per CP1.TE.7.1 and CP1.TE.7.2.	damage and repairs.				stormwater inflow to the wetland. Drainage infrastructure from the wetland area to the west, towards Collins Creek, was completed in November 2020, as indicated in aerial imagery provided in 2020.CP1.TE.7.2b and 2020.CP1.TE.7.2c. The effectiveness of this recharge system is evident in 2020.CP1.HP.11.1a.
CP1.HP.11.2	Mitigate drainage risk to Carlton wetland.	Repair hillside drain or internal drainage network in the event of above average rainfall or intense storm event causing farm tailwater or stormwater flow through Carlton wetland.	Physical repairs to drains to prevent farm water flow into wetland.	Inspection and maintenance records. Photographic evidence of damage and repairs.	Operation	As required at the beginning of each dry season.	NR	Not required during the January-December 2020 reporting period.
CP1.HP.11.3	Monitoring of Carlton wetland water quality following a dry season flow risk event.	In the event of dry season flow to Carlton wetland, water quality samples to be taken.	Water quality testing for farm chemicals (nominally Atrazine), total N and total P, EC and pH. Samples to be compared to routine testing taken under CP1.IW.14.	Monitoring records. Correspondence to DWER (if dry season risk flow event occurs).	Operation	As required.	NR	Not yet required. This action commences with Operations.
CP1.IW.12.1	No tailwater discharge to Reedy Creek or Ord River during the dry season.	Prevent flow of farm tailwater to Reedy Creek or the Ord River during the dry season. Trigger indicator: Dry season flow of tailwater west of the point located at approximately 15.470324S 128.406378E	Maintain drainage network to ensure no dry season tailwater is able to flow to Ord River.	Visual and system records to show no tailwater flows to Reedy (Collins) Creek system.	Operation	Ongoing observation of functionality, and maintenance.	NR	Not yet required. This action commences with Operations.

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EMP AUDIT CODE	SUBJECT / KEY PROVISION	REQUIREMENT	HOW	EVIDENCE	PHASE	TIMEFRAME	STATUS	FURTHER INFORMATION
		(western end of Carlton Stage 1 drain). Threshold indicator: Dry season flow of tailwater downstream of the point located at approximately 15.4747235 128.407478 (500m downstream of the trigger indicator point).						
CP1.IW.12.2	Ord River dry season tailwater risk event monitoring.	In the event of tailwater losses, take lower Ord River samples (below Reedy Creek confluence). Apply Ord Stage 1 water licence trigger levels and pollution reporting levels to incident reporting (Appendix E of EMIP). Report incident to DWER within 30 days.	Daily samples for 7 days, then weekly for 4 weeks, testing for N, P, TSS and Atrazine (as an indicator farm chemical).	Monitoring records. Evidence of correspondence to DWER (within 30 days of risk event).	Operation	If required	NR	Not yet required. This action commences with Operations.
CP1.IW.12.3	Ord River dry season tailwater risk event mitigation.	Threshold contingency action: In the event of an accidental flow of tailwater, release fresh water through to Reedy Creek to enable flushing to the Ord River.	Flush fresh water (non-tailwater) from irrigation channels/pipes through drainage network.	Monitoring records. Correspondence to DWER if flow to Ord River occurs in dry season.	Operation	If required.	NR	Not yet required. This action commences with Operations.

Attachment 2: Carlton Plain Stage 1 Statement 1081 and EMP Audit Tables






















EMP AUDIT CODE	SUBJECT / KEY PROVISION	REQUIREMENT	HOW	EVIDENCE	PHASE	TIMEFRAME	STATUS	FURTHER INFORMATION
CPI.IW.13.1	Water quality monitoring to confirm that no farm chemicals are entering Carlton wetland.	Establish a farm chemicals water quality testing program on the Carlton Stage 1 wetland to assure no farm water is entering the wetland.	Baseline water sampling of total N, total P, EC, pH and TSS prior to irrigation commencing. Testing per EMP Table E.1, Appendix E. Bi-monthly monitoring in dry season once irrigation commences, and in the season prior to irrigation. Inclusion of indicator farm chemical (atrazine – if used) once farming commences. If atrazine is not in use, alternative herbicide or pesticides to be analysed in samples and reported accordingly.	Monitoring Farm chemical application records.	Overall	Bi-monthly in dry season.	NR	Farm chemicals are not yet in use on Carlton Plain. Bi-monthly monitoring of Carlton Wetland water quality has not yet been initiated. The 2020 dry season followed three average-below average rainfall seasons, resulting in reduced in-flow to Carlton Wetland. <i>It is recommended that the frequency of Carlton wetland water quality monitoring increases prior to the commencement of irrigation, to illustrate natural variability and pre-irrigation conditions.</i>
CPI.IW.13.2	Carlton wetland water quality monitoring indicators and threshold contingency actions	Trigger indicators: Per EMP Table E.1, Appendix E. Threshold indicators: Per EMP Table E.1, Appendix E.	Compare water sample analysis to trigger levels. In the event of a pesticide or herbicide being detected in Carlton wetland, follow-up monitoring to occur, with design repairs and/or consideration of freshwater inflow to dilute remaining chemical residue.	Monitoring records. Evidence to show mitigating actions – e.g. freshwater inflow.	Operation	if required.	NR	Not yet required. This action commences with Operations.
CPI.IW.14.1	Avoid substantial cattle damage to native vegetation while reducing weed infestations in the Carlton Stage 1 wetland by allowing limited, restricted cattle access for	Adopt an adaptive, integrated weed management approach using mechanical and/or chemical means.	Weed control by cattle, with: <ul style="list-style-type: none"> reduced stock numbers (compared to historical grazing); and period of access limited in order to avoid excessive habitat damage. 	Annual wetland condition photographs. Pre- and post-cattle access weed and native vegetation wetland	Operation	As required.	C	This action is not required until Operations commence, however it is noted that cattle numbers have been visibly reduced on parts of Carlton Plain, including within the wetland area. Evidence items 2020.CP1.IW.14.1a to 2020.CP1.IW.14.1h provide photographs of the condition of the wetland in the vicinity of vegetation condition site 9, across the 2020 season. There is limited evidence of cattle intrusion into the wetland.

Attachment 2: Carlton Plain Stage 1 Statement 1081 and EMP Audit Tables

EMP AUDIT CODE	SUBJECT / KEY PROVISION	REQUIREMENT	HOW	EVIDENCE	PHASE	TIMEFRAME	STATUS	FURTHER INFORMATION
CP1.IW.15.1	mechanical weed control. Implement a groundwater monitoring program to observe changes in water quality on Carlton Plain.	Monitor bores constructed per EMP Figure 9 and provision CP1.HP.10.	Cattle to not be present in the wetland on a full time grazing basis. Monitor vegetation condition during cattle presence to minimise physical damage. Determine indicators following baseline sampling. EC, pH to be tested in situ at beginning and end of each dry season. Farm chemical testing regime to be determined upon commencement of irrigation. Bore monitoring regime to be reviewed triennially.	condition inspection reports. Bore monitoring data. Triennial groundwater quality and bore monitoring regime review.	Overall	Twice-yearly bore monitoring.	C	Additional bores were established in December 2019. Dataloggers have been installed. The installation of bores has been amended to accommodate farm design. Refer to 2020.CP1.HP.10.1a and 2020.CP1.HP.10.1b for new Carlton bore locations and bore characteristics. 2020.CP1.HP.10.1c provides the analysis data from Carlton Plain bore monitoring undertaken in April 2020. This is integrated into the Carlton Plain bore monitoring database in 2020.CP1.HP.10.1d. 2020.CP1.HP.10.1e contains field monitoring records from April 2020.

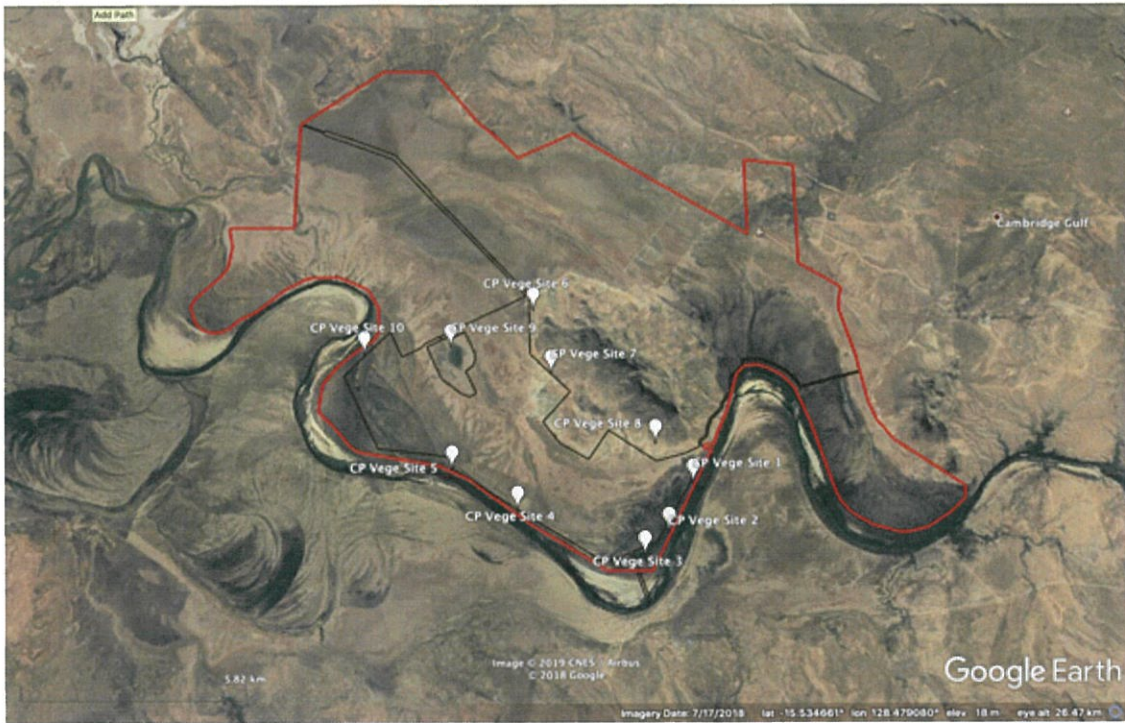
Attachment 3

Attachment 3a - Evidence registry

	2020.1081.M1.1a Carlton Plain compliance response - KAI.pdf
	2020.1081.M1.1b Statement 1081 Letter to KAI R~f Non-compliance 25 March 2020.pdf
	2020.1081.M4.3a Statement 1081 Carlton Plain Stage 1 Compliance Assessment Report Sept 2019-Dec 2019
	2020.1081.M5.1a Email confirmation upload Carlton documents to website
	2020.1081.M5.1b KAI Website - Carlton Plain audit reports and compliance evidence uploaded
	2020.CP1.FV.2.2a Carlton Plain Vegetation Site Monitoring Records 2020.pdf
	2020.CP1.FV.2.2b CP Vege Site 5a 2020-04-02.jpg
	2020.CP1.FV.2.2c CP Vege Site 5b 2020-04-02.jpg
	2020.CP1.FV.2.2d CP Vege Site 6a 2020-04-16.jpg
	2020.CP1.FV.2.2e CP Vege Site 7a 2020-04-16.jpg
	2020.CP1.FV.2.2f CP Vege Site 7b 2020-04-16.jpg
	2020.CP1.FV.2.2g CP Vege Site 8a 2020-04-02.jpg
	2020.CP1.FV.2.2h CP Vege Site 8b 2020-04-02.jpg
	2020.CP1.FV.2.2i CP Vege Site 10a 2020-04-16.jpg
	2020.CP1.FV.2.2j CP Vege Site 10b 2020-04-16.jpg
	2020.CP1.HP.10.1a New Carlton Bore Locations
	2020.CP1.HP.10.1b Carlton Plain New Bore Piezometer Depths.pdf
	2020.CP1.HP.10.1c Carlton Bores Water Quality Analysis 19S4367 April 2020.xlsx
	2020.CP1.HP.10.1d Carlton bore water quality analysis October 2020.pdf
	2020.CP1.HP.10.1e Carlton Plain Bores Chem Centre Analysis Database 2020.xlsx
	2020.CP1.HP.10.1f Carlton Bore field data April 2020.xlsx
	2020.CP1.HP.11.1a Carlton Wetland wet season satellite image Dec 2020
	2020.CP1.IW.14.1a Carlton Wetland 2020-04-16.jpg
	2020.CP1.IW.14.1b Carlton Wetland 2020-04-16.jpg
	2020.CP1.IW.14.1c Carlton Wetland 2020-04-16.jpg
	2020.CP1.IW.14.1d CP Vege Site 9 2020-05-27.jpg
	2020.CP1.IW.14.1e CP Vege Site 9 2020-05-27.jpg
	2020.CP1.IW.14.1f CP Vege Site 9 2020-05-27.jpg
	2020.CP1.IW.14.1g Carlton Vege Site 2020-08-26.jpg
	2020.CP1.IW.14.1h Carlton Vege Site 9 2020-08-26.jpg
	2020.CP1.TE.5.1a Carlton Soils Sampling Sites.jpg
	2020.CP1.TE.5.1b Carlton Soils Analysis Report 2020-05-06.pdf
	2020.CP1.TE.7.2a Carlton Wetland 2020-08-23 Aerial image.jpg
	2020.CP1.TE.7.2b Carlton Wetland 2020-08-22 Satellite image.jpg
	2020.CP1.TE.7.2c Carlton Wetland 2020-11-20 Satellite inc drainage outlet.jpg



Attachment 3b - Locations of vegetation monitoring sites



Site Name	Northing	Easting	Date pegged	Vegetation type	Woodman 2016 condition assessment
CP Vege Site 1	15.56458S	128.51099E	14/3/19	VT19 Savannah woodlands	Degraded
CP Vege Site 2	15.57622S	128.50462E	14/3/19	VT19 Savannah woodlands	Degraded
CP Vege Site 3	15.58179S	128.49854E	14/3/19	VT19 Savannah woodlands	Degraded
CP Vege Site 4	15.57103S	128.46666E	14/3/19	VT19 Savannah woodlands	Degraded
CP Vege Site 5	15.56118S	128.44997E	21/3/19	VT17 Floodplains	Poor
CP Vege Site 6	15.52090S	128.47026E	21/3/19	VT14 Creeklines	Degraded
CP Vege Site 7	15.53729S	128.47504E	21/3/19	VT23 Stony Plains	Very Good
CP Vege Site 8	15.55486S	128.50166E	21/3/19	VT28 Sandstone Hills	Very Good - Excellent
CP Vege Site 9	15.53051S	128.44887E	6/6/19	VT21 Seasonal wetlands	Very Poor
CP Vege Site 10	15.53235S	128.42643E	6/6/19	VT17 Floodplains	Poor