



Carlton Plain Stage 1 – Irrigated Agriculture

COMPLIANCE ASSESSMENT REPORT

1 January 2021 – 31 December 2021

Statement 1081

May 2022
REV O

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
10 May 2022	Rev A	For client review
16 May 2022	Rev B	For client review
17 May 2022	Rev O	For 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
N	Nitrogen
NR	Nature Reserve
OFA	Ord Final Agreement
OHS	Occupational Health and Safety
ORFRS	Ord River Floodplain Ramsar Site
P	Phosphorus
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 2021 to 31 December 2021.

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 originally allowed 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.

A section 45C application to vary Ministerial Statement 1081 was submitted to DWER on 3 October 2019. The s45C request was approved by DWER on 1st September 2021. Table 1 summarises the approved operational extent under Statement 1081. Tables 3 outlines the changes that were approved.

The *Environmental Management Plan* (EMP) for Carlton Plain Stage 1 (Kimberley Boab Consulting, 2018) was approved for implementation under Statement 1081. A revised EMP was submitted to DWER with the s45C request. This Compliance Assessment Report (CAR) covers both the Statement and the EMP.

Figures 1 and 2 illustrate the location and the approved *varied* development area. The variation reduced the permitted area of clearing by 110ha, to 2,945ha.

Table 1 – Original and approved varied development extent

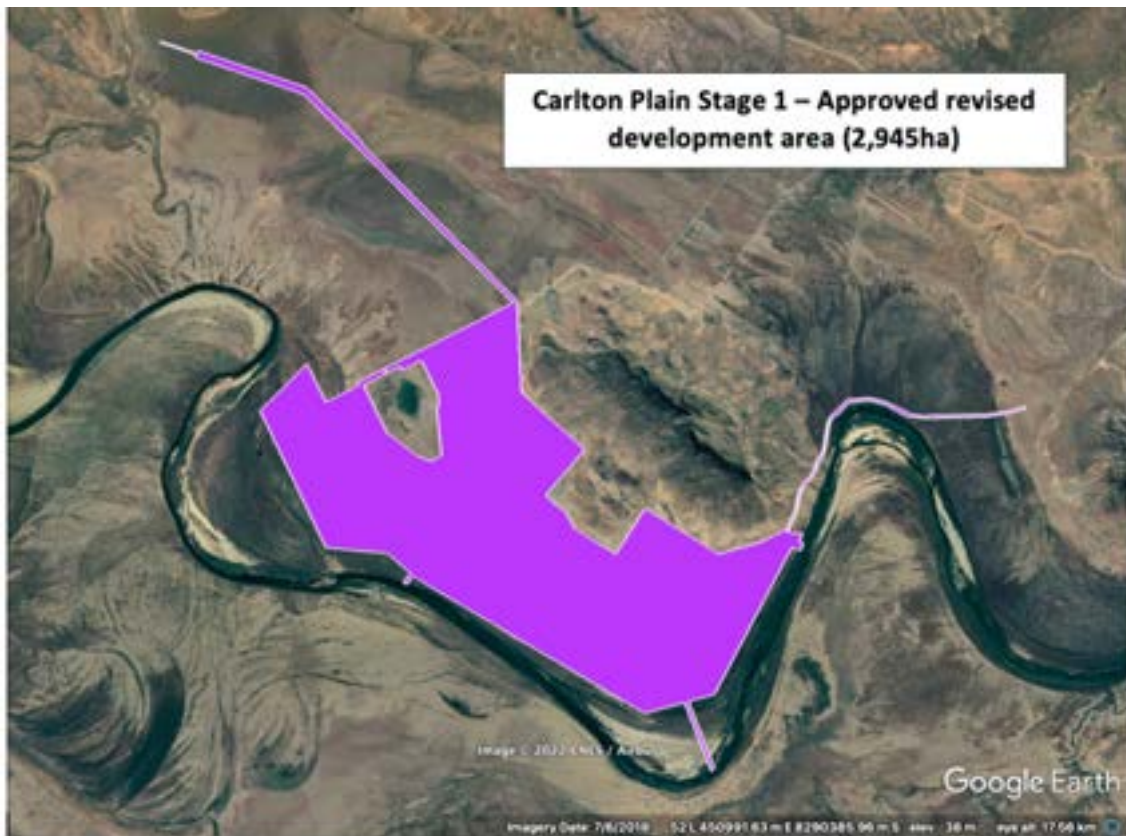
Element	Originally approved extent	Revised extent approved 1/9/21
Surface and pressurized irrigation of annual and perennial crops, including infrastructure areas access, farm outbuildings, drainage and irrigation requirements.	Clearing of up to 3,055ha (refer to Table 3 for breakdown).	Clearing, development 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 Development Area Location



Figure 2 - Carlton Plain Stage 1 Approved (revised) development envelope



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 2,945ha 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 1,749ha.
Pressurised irrigation of perennial crops	Clearing of up to 368ha. Pressurised irrigation infrastructure to be constructed where soils do not allow for surface (flood) irrigation.
Infrastructure	Clearing of up to 828ha 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 pumphsites 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 pumphsites and hillside drainage lines intersected by the Carlton Plain access track. Permit processes continue.

In addition, a draft Operating Strategy has been supplied to DWER for consideration. Discussions continue.

On 1 April 2021, KAI received from the Commonwealth Department of Agriculture, Water and the Environment (DAWE) a request for further information regarding the development of Carlton Plain and the potential for impacting upon the nearby Ramsar wetland. Written advice was provided to DAWE in response. No further action has been taken by DAWE.

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 guh@kai-australia.com.au

Website: www.kai-australia.com.au

Proponent representatives:

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

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

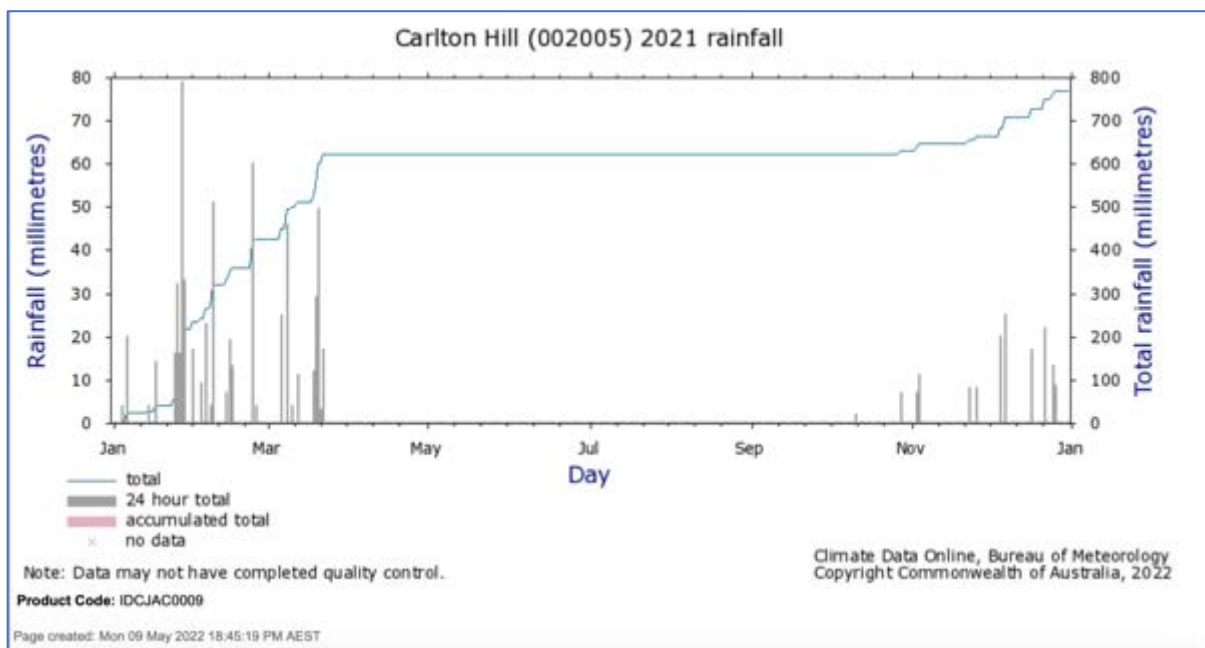
4.0 Implementation status

Clearing for the development of Carlton Plain commenced in April 2019 following the renovation of the eastern entry track in November 2018. A total of 2,369.3ha has been cleared, as reported in the 2020 CAR. The 2020 dry season involved the raking of areas cleared in the previous year and further clearing of the main farm area.

Works undertaken in 2021 were very limited and confined to some maintenance and drainage infrastructure being completed. This totalled approximately two weeks of work.

The reporting year (2021) saw a total of 770.8mm of rainfall fall at the Carlton Hill Station weather monitoring station, below the median site rainfall of 808.1mm and mean of 830.7mm (BoM data, accessed 9/5/2022).

Figure 3 - Carlton Hill Station Rainfall 2021



Source: www.bom.gov.au accessed 9/5/2022

The Carlton wetland ‘plumbing’ continues to operate effectively and recharges the wetland with hillside drainage from House roof Hill, per the project design. Plate 1 depicts the wetland on 19 May 2021. Images provided as Plates 2 and 3 illustrate the dry status of the wetland area in October 2021, prior to the onset of the 2021-2022 rainfall season.



Plate 1 - Carlton Wetland - 19 May 2021



Plate 2 - Seasonally dry Carlton Wetland - 21 October 2021



Plate 3 - Central Carlton Wetland 21 October 2021

Additional site photos are provided in Plates 4-7.

Indicative site inspection photographs: October 2021



Plate 4: Central clearing area (looking north from southern clearing boundary).



Plate 5: Central clearing area (looking north-east from southern boundary)



Plate 6: Central clearing area adjacent to proposed pump site.



Plate 7: Vegetation (predominantly pre-existing weeds including *Calatropis*) adjacent to proposed pump site.

Photos 4-7 taken 21 October 2021.

5.0 Statement of Compliance

POST ASSESSMENT FORM 2

Statement of Compliance

1. Proposal and Proponent Details

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

2. Statement of Compliance Details

Reporting Period	1/01/21 to 31/12/21
------------------	---------------------

Implementation phase(s) during reporting period (please tick ✓ relevant phase(s))			
Pre-construction	<input checked="" type="checkbox"/>	Construction	<input checked="" type="checkbox"/>
Operation	<input type="checkbox"/>	Decommissioning	<input type="checkbox"/>

Audit Table for Statement addressed in this Statement of Compliance is provided at Attachment:	2
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.	

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)	<input checked="" type="checkbox"/> Yes (please proceed to Section 4)

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? 1081:M4.3 and 1081:M4.6. Timing of submission of the 2020 Carlton Plain CAR. CP1.TE.8.1. Soils monitoring.
Was the implementation condition or procedure non-compliant or potentially non-compliant? Potentially non-compliant.
On what date(s) did the non-compliance or potential non-compliance occur (if applicable)? The PNCs noted above relate to missed monitoring requirements and delayed CAR submission.

Was this non-compliance or potential non-compliance reported to the Chief Executive Officer, DWER?	
<input type="checkbox"/> Yes <input type="checkbox"/> Reported to DWER verbally Date _____ <input type="checkbox"/> Reported to DWER in writing Date _____	<input checked="" type="checkbox"/> 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? Potential Non-Compliances were noted for 1081:M4.3 and 1081:M4.6, in relation to the late submission of the 2020 Carlton Plain CAR. Potential Non-Compliance is noted for CP1.TE.8.1. Baseline sampling data does not indicate pH or nutrients, as is required under the EMP.
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 and management scheduling.
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? Complete triennial monitoring reviews in 2022 and recommend changes (if necessary) to monitoring regimes and technical requirements.

POST ASSESSMENT FORM 2

<p>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?</p>
<p>Improved management oversight.</p>
<p>Please provide information/documentation collected and recorded in relation to this implementation condition or procedure:</p> <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. <p>(the above information may be provided as an attachment to this Statement of Compliance)</p>

Refer to audit evidence items as listed in Attachment 3.

POST ASSESSMENT FORM 2

4. Proponent Declaration

I,, (*full name and position title*)

declare that I am authorised on behalf of

(*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:.....

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.

5. Submission of Statement of Compliance

One hard copy and one electronic copy (preferably PDF on CD or thumb drive) of the Statement of Compliance are required to be submitted to the Chief Executive Officer, DWER, marked to the attention of Manager, Compliance (Ministerial Statements).

Please note, the DWER has adopted a procedure of providing written acknowledgment of receipt of all Statements of Compliance submitted by the proponent, however, the DWER does not approve Statements of Compliance.

6. Contact Information

Queries regarding Statements of Compliance, or other issues of compliance relevant to a Statement may be directed to Compliance (Ministerial Statements), DWER:

Manager, Compliance (Ministerial Statements)

Department of Water and Environmental Regulation

Postal Address: Locked Bag 10
Joondalup DC
WA 6919

Phone: (08) 6364 7000

Email: compliance@dwer.wa.gov.au

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 2021 to 31 December 2021.

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 21 October 2021.
- 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 4 - 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 5 - 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 2022 to 31 December 2022 is required to be submitted to DWER by 31 March 2023.

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 1 January 2020 to 31 December 2020, submitted to DWER on 1 June 2021, indicated potential non-compliances which have been incorporated into Table 6 (see over page).

Table 6 – Progress in relation to potential non-compliances reported in previous CARs

Audit code	Subject	Requirement	Previous Audit finding	Previous audit commentary	Recommended mitigation	Status at 31 December 2021
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 (2019)	The Section 45c application to vary MS1081 was approved by DWER under Ministerial Delegation on 1/9/21.	N/A	This PNC was resolved with the issue of the Section 45c approval by the EPA Chairman on 1/9/21.
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 (2019)	The Section 45C variation application was submitted retrospectively, with boundary adjustments (particularly in relation to the entrance track) already initiated.	As above.	This PNC from 2019 has now been resolved. DWER issued a letter to KAI on 25 March 2020 regarding the resolution of the 2019 PNCs.
1081:M5.1	Public Availability of Data	Subject to condition 5-2, within a reasonable time period approved by the CEO of the issue of this	PNC (2019)	At the time of compliance assessment, KAI's website was undergoing reconstruction, and	Documents to be made publicly available when website is re-established.	Carlton Plain 2019 and 2020 monitoring data is available on KAI's website. 2021 monitoring data (evidence relating to this report) was uploaded to the website concurrent with CAR submission.

Audit code	Subject	Requirement	Previous Audit finding	Previous audit commentary	Recommended mitigation	Status at 31 December 2021
		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.		monitoring data was not publicly available.		
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	PNC (2020)	The September to December 2019 CAR was not submitted to DWER in the timeframe stipulated in the CAR. There were no PNCs in the September-December 2019 CAR which were not already identified in the previous CAR. This PNC	Submit outstanding compliance report.	The September to December 2019 CAR and the January to December 2020 CAR were submitted to DWER on 1 June 2021.

Audit code	Subject	Requirement	Previous Audit finding	Previous audit commentary	Recommended mitigation	Status at 31 December 2021
		accordance with the Compliance Assessment Plan required by condition 4-1.		is therefore considered an administrative one.		
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. <i>(Additional condition text excluded for brevity).</i>	PNC (2020)	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. There were no PNCs in the September-December 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.	Submit outstanding compliance report.	The September to December 2019 CAR and the January to December 2020 CAR were submitted to DWER on 1 June 2021.

8.0 Findings

8.1 Audit results

This Compliance Assessment Report identifies potential non-compliances in relation to report submission timelines and monitoring. Negative environmental outcomes on Carlton Plain and surrounding areas, during the 2021 calendar year, were not observed. No development activity occurred during the compliance year.

A Potential Non-Compliance is noted for CP1.TE.8.1. Baseline soil sampling data does not indicate pH or nutrients, as is required under the EMP. It is recommended that a soils data is reviewed and assessed, to inform management practices.

Administrative Potential Non-Compliances were noted for 1081:M4.3 and 1081:M4.6, in relation to the late submission of the 2020 Carlton Plain CAR.

8.2 Recommended changes to the Compliance Assessment Plan

No changes to the CAP are recommended.

8.3 Recommendations for improved environmental management

CP1.FV.3.3 Weed mapping

The 2020 CAR recommended improved weed management in vegetation management areas in relation to CP1.FV.3.2. This recommendation is retained in relation to the 2021 report.

KAI advised that the only logical method to employ for weed control in vegetation management areas adjacent to a riparian zone is grazing. Grazing has continued to be employed as a control measure for the various weeds growing in the region. Of most concern for the broader region external to and upstream of Carlton Plain) is the explosion of Neem tree along the riparian areas. KAI further advised that cattle grazing has some impact but is not as effective on Neem as it is for *Parkinsonia* and *Calytropis*.

Triennial weed surveys are required in 2022 under CP1.FV.3.3.

CP1.IW.15.1 Soils monitoring

As noted under Section 8.1, is recommended that a soils data is reviewed and assessed, to inform management practices.

CP1.IW.15.1 Groundwater monitoring

The triennial groundwater monitoring review is due to be undertaken in 2022.

8.4 Recommended changes to the Environmental Management Plan

Following the Section 45C approval, no further changes have been recommended to the 2019 revision of the EMP.

Written confirmation of the acceptance of the EMP revised in 2019 to accommodate the s45C changes is required. As the 2019 revision was submitted with the s45C approval, the EMP amendments have been assumed to have been accepted by the EPA.

9.0 References

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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 Table 1 - Statement 1081 Audit Table: January 1 2021 to December 31 2021

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 Environment Regulation; DPAW = 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	There was no further clearing conducted in 2021. Evidence item 2021.1081.M1.1a provides the DWER approval of the Section 45c application to amend the development envelope. Evidence item 2021.1081.M1.1b provides the revised Schedule 1 of Statement 1081, accommodating the s45C changes.
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	Written correspondence.	Correspondence to EPA.	Overall	Within twenty-eight (28) days of any change of proponent name, physical	C	There were no changes to KAI's contact details in 2021.

Audit Code	Subject	Requirement	How	Evidence	Phase	Timeframe	Status	Further Information
		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				address or postal address.		
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. <i>No change to this status.</i>
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 substantial by providing the CEO with written evidence, on or before the expiration of five (5) years from the date of this Statement.	Written correspondence.	Correspondence to EPA.	Overall	By 11 September 2023.	CLD	Completed in previous reporting period. <i>No change to this status.</i>
1081:M4.1	Compliance Reporting	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 4-6, 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. <i>No change to this status.</i>
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 assessments; (4) the method of reporting of 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. <i>No change to this status.</i>
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	Undertake and submit annual Compliance	Notification (from CEO) of approval	Overall	After receiving notice in writing from the CEO	PNC	The 2020 CAR was not submitted to DWER in the timeframe stipulated in the CAR.

Audit Code	Subject	Requirement	How	Evidence	Phase	Timeframe	Status	Further Information
		shall assess compliance with conditions in accordance with the Compliance Assessment Plan required by condition 4-1.	Assessment and report to the CEO in line with CAP requirements.	of Compliance Assessment Plan. Annual CARs. Confirmation of dates of submission of annual CARs.		that the CAP satisfies the requirements of condition 4-2.		Evidence item 2021.1081.M4.3a 2020 Compliance Assessment Report was submitted to DWER on 1 June 2021. This PNC is therefore considered an administrative one.
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	This document forms the fourth Statement 1081 Compliance Assessment Report. Requests from DWER regarding the Carlton Plain Stage 1 development were responded to at various times during the reporting year.
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	PNCs identified in this report are administrative, with the exception of CP1.IW.15.1, which relates to monitoring. Given that operations (irrigation) have not yet commenced, the non-reporting of this monitoring shortfall within 7 days may not be considered a material issue.
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	Written advice to CEO of EPA Services. Proponent-endorsed compliance statement included in CAR.	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 2020 CAR was submitted (late) on 1 June 2021. This PNC is therefore considered an administrative one. KAI continued to liaise with DWER staff regarding reporting and the Section 45c application and progress with the Carlton

Audit Code	Subject	Requirement	How	Evidence	Phase	Timeframe	Status	Further Information
		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 (5) indicate any proposed changes to the Compliance Assessment Plan required by condition 4-1.	PNCs and corrective and preventative actions recorded. Evidence of public availability included. Proposed changes to CAP included.					development during the 2021 year.
1081:M5.1	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.	Upload data to website or other public access option.	Proponent website includes required data.	Overall	Within a reasonable time period approved by the CEO.	C	2020 monitoring reports were uploaded to the KAI website on 27 May 2021. Evidence supporting this 2021 CAR has been uploaded to KAI’s website.
1081:M5.2	Public Availability of Data	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.	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	Implement Carlton Plain Stage 1 EMP.	Compliance assessment of EMP implementation.	Overall	For the life of the proposal.	C	Site inspection conducted 21 October 2021 and monitoring reports indicate there is no evidence to suggest - (1) irreversible loss of, or serious damage to the riparian

Audit Code	Subject	Requirement	How	Evidence	Phase	Timeframe	Status	Further Information
		values of the Ord River, including: (a) vegetation 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.		2021.1081.M6.1a 2019 (Revised) EMP				vegetation zone outside of the development envelope; (2) 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 and is assumed to have been supported with the s45C approval received in September 2021. 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	Item 2021.1081.M6.2a provides the 2019 EMP revision supplied to DWER with the Section 45C variation request. Table 2 reports on compliance with individual EMP requirements.
1081:M6.3	Operational Environmental Management Plan Implementation	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 Plan meets the environmental	C	The Proponent has implemented the Revised EMP dated 2019 per Table 2, during the reporting period.

Audit Code	Subject	Requirement	How	Evidence	Phase	Timeframe	Status	Further Information
			2021.1081.M6.1a 2019 (Revised) EMP			outcomes required by condition 6-1.		
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 condition 6-1 are not being achieved, (5) provide	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	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.

Audit Code	Subject	Requirement	How	Evidence	Phase	Timeframe	Status	Further Information
		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.						
1081:M6.5	Operational Environmental Management Plan Implementation	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.	Submit annual Compliance Assessment Report and monitoring data. Interpret and submit monitoring data. Assess effectiveness of management, monitoring and contingency measures.	Reports and correspondence submitted to EPA by 31 March of the year following the reporting period.	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	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.	Submit recommended EMP changes to the CEO of the EPA.	Recommended changes and correspondence to EPA. Correspondence from EPA approving changes prior to any changes being adopted / implemented.	Overall	For the life of the proposal.	C	The Revised EMP dated 2019 is assumed to have been approved by DWER with the associated s45C variation on 1 September 2021.

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. There has been no further clearing on Carlton Plain in 2021. Riparian setbacks remain in situ. There is no change to this status.
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	<i>Initial EMP date (2018) unable to be met due to</i>	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

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.		<i>late dry season approval of EMP.</i> 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 CP1.FV.3.1.
CP1.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 CP1.FV.2.1.</i>	Photographic records. Aerial imagery. Field notes.	Overall	By August 31 of each year.	C	Vegetation condition monitoring was completed in June 2021, per evidence items 2021.CP1.FV2.2a – vegetation field records; and 2021.CP1.FV2.2b-j - sample site photographs. Site photography records have been retained and catalogued by KAI to visually document changes. Examples are included in the evidence compilation for this report.
CP1.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. The WARMS condition assessment	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 a mechanical weed	Photographic records. Aerial imagery. Field notes. Monitoring records. Correspondence of vegetation condition decline forwarded to EPA services within 30 days of vegetation	Overall	As required if monitoring indicates 60% of sites in decline.	NR	Not required. Based on photographic records and site inspections, sixty per cent of monitoring sites do not show vegetation decline. Inspection records indicate some vegetation coverage improvement across most sites, likely due to the removal of the majority of cattle. Weed control may be needed, with weed coverage increasing (possibly due to cattle removal). Erosion was not reported as being present.

EMP AUDIT CODE	SUBJECT / KEY PROVISION	REQUIREMENT	HOW	EVIDENCE	PHASE	TIMEFRAME	STATUS	FURTHER INFORMATION
		rating method will be adopted. 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.	management tool in lieu of chemical weed control, particularly in the vicinity of the Ord River and the Carlton Plain wetland area. 2. Amend the fire regime if fire is considered a factor in vegetation condition decline. 3. Address weed management, per CP1.FV.3. 4. Establish [annual] targets for vegetation condition improvement based on the extent of variation from vegetation condition goal and current climatic seasonal conditions.	condition surveys being undertaken.				
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.	Photographic records. Aerial imagery. Field notes. Monitoring records. Correspondence of vegetation condition decline forwarded to EPA services within 30 days	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.

EMP AUDIT CODE	SUBJECT / KEY PROVISION	REQUIREMENT	HOW	EVIDENCE	PHASE	TIMEFRAME	STATUS	FURTHER INFORMATION
				of vegetation condition surveys being undertaken.				
CP1.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 CP1.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.	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 CP1.FV.2.1.
CP1.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 CP1.FV.2.1. Weed management may need to be considered in vegetation retention areas. Mechanical control options or controlled (mosaic) burns may assist in control of hiptis (wild mint).
CP1.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	The first triennial weed inspection is due in 2022 (three years from clearing and destocking in 2019).
CP1.FV.3.4	No new Weeds of National	Utilise monitoring data to ensure	Weed inspections and analysis of monitoring data.	Photographic records.	Overall	Ongoing.	C	No new Weeds of National Significance or Declared Pest and Weed species were observed

EMP AUDIT CODE	SUBJECT / KEY PROVISION	REQUIREMENT	HOW	EVIDENCE	PHASE	TIMEFRAME	STATUS	FURTHER INFORMATION
	Significance or Declared Pest weed species established in vegetation retention areas.	compliance with Threshold Indicator. Threshold exceedance occurs if new Weeds of National Significance or Declared Pest plant species establish or 100% of monitoring sites show increased weed coverage.		Site inspection field notes. Correspondence to DWER within 30 days of surveys.				during the compliance inspection in October 2021 or in vegetation monitoring photographs from June 2021.
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	1. 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.	Site inspection records. Field notes. Photographic evidence. Spray records. Triennial weed survey reports. Written evidence of advice to DBCA.	Overall	From commencement	C	Previous finding is retained: Rubber bush (<i>Calotropis procera</i>), a Declared Weed in Western Australia, was widely present on Carlton Plain and across the East Kimberley prior to the commencement of development. Clearing has removed large quantities of <i>Calotropis procera</i> , restricting the available local seed source which could further infest vegetation retention areas.

EMP AUDIT CODE	SUBJECT / KEY PROVISION	REQUIREMENT	HOW	EVIDENCE	PHASE	TIMEFRAME	STATUS	FURTHER INFORMATION
		mechanisms listed under 'How'. 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.	<ol style="list-style-type: none"> 2. Weed control/removal and/or rehabilitation of weed infested areas if weed coverage in vegetation retention areas is shown to increase. 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). 4. In the case where introduced crop species are detected in the vegetation retention area: <ol style="list-style-type: none"> a) Remove the introduced crop species from the vegetation retention area; b) Investigate whether the species have spread to adjacent environmentally sensitive areas outside of the proponent's freehold area, or the Carlton wetland; 	Evidence of liaison with neighbouring properties to remove weeds attributable to Carlton Plain Stage 1.				<i>The previous (2020 and 2021 CAR) finding is retained: 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>

EMP AUDIT CODE	SUBJECT / KEY PROVISION	REQUIREMENT	HOW	EVIDENCE	PHASE	TIMEFRAME	STATUS	FURTHER INFORMATION
			c) If the proponent's investigations identify 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.					
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.	Detailed decommissioning plan to include rehabilitation management and weed control.	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.
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.	Decommissioning plan. Rehabilitation work records. Photographs and aerial imagery.	Decommissioning	Within 5 years of cessation of irrigation.	NR	Not yet required.

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			2. If not required for non-irrigation use of farmland, return land 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. 3. Post-irrigation land use to be congruent with surrounding land use. 4. Monitor for natural revegetation / re-growth and erosion, per methodology contained in EMP Appendix B.	Field / site inspection and monitoring reports.				
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	1. Six-monthly rehabilitation inspections for species type, density, weed coverage, post-decommissioning. 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-	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.

EMP AUDIT CODE	SUBJECT / KEY PROVISION	REQUIREMENT	HOW	EVIDENCE	PHASE	TIMEFRAME	STATUS	FURTHER INFORMATION
		equivalent Keighery scale 'good to 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.	decommissioning rehabilitation assessment can occur. 3. Monitoring to include comparison with adjacent landscape through use of WARMS data from nearby sites.					
CP1.FV.4.4	Five-year post-rehabilitation management contingency.	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'.	<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 	<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.

EMP AUDIT CODE	SUBJECT / KEY PROVISION	REQUIREMENT	HOW	EVIDENCE	PHASE	TIMEFRAME	STATUS	FURTHER INFORMATION
			considered practicable. 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.					
CP1.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-constructi on and Operation	Annually at end of each dry season.	C	Soil samples were taken at 10cm and 60cm depths in July 2021, and analysed by CSBP, per evidence item 2021.CP1.TE.5.1a . The report indicates shallow (10cm) and deep (60cm) samples at 6 points across Carlton Plain. Shallow samples exhibited ECe ranging from 8mS/m to 42mS/m at 10cm depth, and 6mS/m to 286mS/m at 60cm. These samples are within acceptable ranges and do not meet trigger or threshold indicators.
CP1.TE.5.2	Soil salinity mitigation.	Where an exceedance of a trigger value is identified for salinity for surface and sub soil, the corrective	1. Identify the distribution of soil with salinity exceeding trigger levels and increase the sampling density	Soil sample analysis reports. Revised soil mapping indicating	Operation	As required.	NR	Not yet required.

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		actions outlined under 'How' will be implemented.	to define the areas above the trigger. 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). 3. Verify the adequacy of the estimated leaching rate (approximately 100 mm/a) in controlling salinity. 4. Identify whether remedial action is required, such as installation of drainage or pumping systems or higher water use agriculture. 5. Implement remedial actions on a trial basis in areas identified from distribution mapping.	distribution of salinity. Reports or other data confirming remedial activities.				
CP1.TE.6.1	Soil sodicity levels five years after commencement	Monitor soil condition for	Soil samples to be taken at 100mm (topsoil / surface	Soil sample analysis reports.	Pre-constructi	Baseline samples 2019.	C	The 2021 soils report (2020.CP1.TE.5.1a) includes exchangeable cations (Ca, K, Mg, Na). Conversion to ESP and review and analysis of the baseline soil

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	<p>of irrigation do not exceed an Exchangeable Sodium Percentage (ESP) of 10 in surface soils or 15 in subsurface soils (threshold indicators).</p> <p>Trigger indicators ESP 6 in surface/top soils (<100mm) and ESP 10 in subsoils (<600mm).</p>	<p>evidence of soil sodicity.</p> <p><i>Crop yield decline may be utilised as indicator. Soil testing to be undertaken in the event of crop yield decline.</i></p>	<p>soil) and 600mm (subsurface soil).</p> <p><i>Per EMP Provision CP1.TE.6, revision of thresholds may occur following review of baseline data.</i></p>	<p>In the event that trigger levels are observed, the Commissioner for Soil and Land Conservation will be informed within 60 days.</p>	on and Operation	Annual sampling on each farm lot following commencement of irrigation.		sodicity in relation to triggers and thresholds should be undertaken prior to the commencement of irrigation.
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.	<ol style="list-style-type: none"> 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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			soil chemical status is deteriorating as a result of insufficient irrigation). 3. Verify the adequacy of the estimated leaching rate (approximately 100 mm/a) in controlling sodicity. 4. Identify whether remedial action is required, such as application of recommended soil ameliorants. 5. Implement remedial action (such as the application of lime or gypsum) on a trial basis in areas identified by distribution mapping.					
CP1.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	1. Assess erosion damage at end of each wet season. 2. Repair any damage to infrastructure and fields. 3. Review and if necessary modify design implications to ensure future wet seasons do not result	Inspection reports. Photographic evidence of damage and repairs.	Overall	At beginning of each dry season.	C	KAI reported no significant scours following 2020-21 wet season. Inspections were undertaken in June 2021. There was no evidence of significant scours during the October 2021 site inspection by the auditor.

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	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, as reported in the 2020 CAR.
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.	PNC	Soil sampling data is provided in 2020.CP1.TE.5.1a . Nutrient and pH analysis was not included in the report. The 2020 CAR noted that nutrient analysis should be included in future soil reports. This 2021 CAR retains that recommendation.
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 as 2021.CP1.FV.2.2a and 2.2b) 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 (October 2021) or reported by KAI.

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			Restrict access (where possible) including mustering or culling if necessary (with appropriate licences if required).	culling has occurred. Correspondence to DBCA reporting fauna pest management activities.				
CP1.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.	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.	Bore monitoring data. Bore locations plan. Site inspections. Drilling contractor receipts / proof of bores (re-) drilled. Triennial groundwater monitoring review.	Overall.	<i>Initial EMP date of 2018 unable to be met due to late season receipt of Statement 1081.</i> Bore drilling and initial sampling undertaken in 2019.	C	<p>2021.CP1.HP.10.1a provides laboratory analysis of groundwater samples from May 2021.</p> <p>2021.CP1.HP.10.1b provides data from loggers installed on bores Y1, Y3, Y10, Y11, Y12, Y13, Y14 and Y15. The graphs indicate data gaps between late October 2020 and June 2021. KAI has advised that this data is available and will be provided to DPIRD for incorporation into the data plots provided in item HP.10.1b.</p> <p>All logged bores indicated that groundwater did not rise above -2mbgl in the CP1 development area. Field measurements confirm this (see 2021.CP1.HP.10.1c and 2021.CP1.HP.10.1d).</p> <p>Independent hydrological analysis of data from the loggers, in conjunction with laboratory results and historical field records, is recommended to inform ongoing management and future development. This should occur in conjunction with the triennial review which is required for this action.</p>
CP1.HP.10.2	Trigger indicator: Groundwater depth 3 metres below ground level (mbgl). Threshold indicator:	Threshold reporting will occur should groundwater depth rise to 2mbgl. DWER will be advised should groundwater	Undertake depth monitoring per CP1.HP.10.1.	Data logs. Monitoring records. Correspondence to DWER.	Overall	Review with each monitoring round.	C	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 (eg Bore 6).

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	Groundwater depth 2mbgl.	levels near trigger or thresholds.						<p>This action is interpreted as referring to the groundwater level directly below the irrigation area that forms Carlton Plain Stage 1.</p> <p>Field monitoring data from June 2021 indicates Bore 6 (see 2021.CP1.HP10.1c) had depth to groundwater of 370mm. This bore is not located in the development area, and is an historic 25mm piezometer located in a low lying area to the west of the Carlton Plain development.</p>
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	Not yet required.
CP.HP.10.4	Groundwater management review.	Triennial review of groundwater monitoring and management regime.	Review data. Review monitoring regime. Initiate management and mitigation responses per CP1.HP.10.3 if required.	Data logs. Monitoring records. Correspondence to DWER.	Operation	Triennial	NR	The first triennial groundwater monitoring review is due in 2022. This action commences with Operations, however a review of monitoring regimes and findings to date is recommended.

EMP AUDIT CODE	SUBJECT / KEY PROVISION	REQUIREMENT	HOW	EVIDENCE	PHASE	TIMEFRAME	STATUS	FURTHER INFORMATION
CP1.HP.11.1	Protection of Carlton wetland from farm tailwater or (average wet season) stormwater flow.	Hillside drainage and internal stormwater drainage network maintained such that there is no tailwater flow through Carlton wetland in any dry season or stormwater flow through the wetland in an average rainfall wet season.	Install and maintain farm drainage around Carlton wetland. Visual monitoring and repairs (if required) after each wet season, per CP1.TE.7.1 and CP1.TE.7.2.	Inspection reports. Photographic evidence of damage and repairs.	Construction Operation	As required at the beginning of each dry season.	C	Hillside drainage has been constructed to protect Carlton wetland from farm runoff water, as previously reported (2019 and 2020 CARs). Carlton Plain is not yet being farmed for crops, therefore the remainder of this action is not yet required.
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 2021 CAR 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	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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		tailwater west of the point located at approximately 15.470324S 128.406378E (western end of Carlton Stage 1 drain). Threshold indicator: Dry season flow of tailwater downstream of the point located at approximately 15.474723S 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 EMP). 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	Flush fresh water (non-tailwater) from irrigation channels/pipes through drainage network.	Monitoring records. Correspondence to DWER if	Operation	If required.	NR	Not yet required. This action commences with Operations.

EMP AUDIT CODE	SUBJECT / KEY PROVISION	REQUIREMENT	HOW	EVIDENCE	PHASE	TIMEFRAME	STATUS	FURTHER INFORMATION
		tailwater, release fresh water through to Reedy Creek to enable flushing to the Ord River.		flow to Ord River occurs in dry season.				
CP1.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 records. 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. <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>
CP1.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.
CP1.IW.14.1	Avoid substantial cattle damage to native vegetation while reducing weed infestations	Adopt an adaptive, integrated weed management approach using	Weed control by cattle, with: <ul style="list-style-type: none"> reduced stock numbers (compared to 	Annual wetland condition photographs.	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.

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	in the Carlton Stage 1 wetland by allowing limited, restricted cattle access for mechanical weed control.	mechanical and/or chemical means.	<ul style="list-style-type: none"> historical grazing); and period of access limited in order to avoid excessive habitat damage. Cattle to not be present in the wetland on a full time grazing basis. Monitor vegetation condition during cattle presence to minimise physical damage.	Pre- and post-cattle access weed and native vegetation wetland condition inspection reports.				
CP1.IW.15.1	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.	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.	Bore monitoring data. Triennial groundwater quality and bore monitoring regime review.	Overall	Twice-yearly bore monitoring.	C	Evidence items 2021.CP1.HP10.1a to 2021.CP1.HP10.1d provide field, laboratory and groundwater logger results for 2021. It is recommended that a full review of groundwater data to date be completed in 2022 as part of the required triennial groundwater quality and bore monitoring regime review.

Attachment 3

Attachment 3 - Evidence registry

	2021.1081.M1.1a Approval of s45C application 2021-09-01.pdf
	2021.1081.M1.1b Revised Schedule 1 of MS1018.pdf
	2021.1081.M4.3a Statement 1081 Carlton Plain Stage 1 Compliance Assessment Report 2020 SIGNED.pdf
	2021.1081.M6.1a Carlton Plain Stage 1 Revised EMP September 2019
	2021.1081.M6.2a Carlton Plain Stage 1 EMP Revised September 2019.pdf
	2021.CP1.FV2.2a Vegetation Survey Field Reports June 2021.pdf
	2021.CP1.FV2.2b Photographic Records Vegetation Monitoring Sites 2021-06-28.xlsx
	2021.CP1.HP.10.1c Carlton Bore data for May 2021.xlsx
	2021.CP1.HP10.1a Groundwater Monitoring Laboratory Report May 2021.pdf
	2021.CP1.HP10.1b Carlton Plain Bore Logger Graphs 2019-2021.pdf
	2021.CP1.HP10.1d Carlton Bore data for December 2021.xlsx
	2021.CP1.TE.5.1a CSBP_210712 Carlton Plain Soils Report.pdf