

Ord River Irrigation Area Stage 2 M2 Supply Channel

Compliance Assessment Report 2017

Prepared for

Department of Primary Industries and Regional Development

For submission to the Office of the Environmental Protection Authority, Western Australia, in compliance with the requirements of Ministerial Statement 938 issued under the Environmental Protection Act 1986.

June 2018

Prepared for the Department of Primary Industries and Regional Development by –



KIMBERLEY BOAB CONSULTING

PO Box 149
KUNUNURRA WA 6743
kimberleyboab@gmail.com

RABQSA-EM Auditing Environmental Management Systems
RABQSA-AU Management Systems Auditing
RABQSA-TL Leading Management Systems Audit Teams

Disclaimer and Limitation

This report has been prepared for the Department of Primary Industries and Regional Development (DPIRD) in accordance with the agreement between DPIRD and Kimberley Boab Consulting Pty Ltd. The content of this report is limited by the parameters provided by DPIRD including scope and timeframes. Kimberley Boab Consulting Pty Ltd accepts no liability or responsibility whatsoever in respect of any use of or reliance upon this report by any person who is not a party to the agreement.

This report is limited by the timing of auditor engagement very late in 2017. Consequently, the auditor has had to draw on information and records obtained during operational season site visits (~May 2017) and available evidence, as well as a non-operational audit inspection in December 2017.

Those audit items deemed completed by other auditors in previous compliance assessments have not been re-assessed, unless a material change has occurred.

Document control

Date	Version	Reviewed by
28 June	Draft Rev A	DPIRD, KAI
30 June	Rev O	Provided to DPIRD
13 July	Final for submission	Completed - KBC

CONTENTS

1.0	INTRODUCTION	5
1.1	PROJECT BACKGROUND	5
1.2	PROJECT APPROVALS	5
1.3	PROPONENT	6
2.0	CURRENT STATUS	7
2.1	CLEARING, DEVELOPMENT AND OPERATION	7
2.1.1	<i>Weaber Plain – Goomig</i>	7
2.1.2	<i>Knox Creek Plain</i>	7
2.2	CHANGES TO APPROVALS AND MANAGEMENT ARRANGEMENTS	7
2.3	PROPOSED CHANGES TO THE COMPLIANCE ASSESSMENT PLAN	7
3.0	AUDIT METHODOLOGY	8
3.1	PLAN	8
3.1.1	<i>Purpose and scope</i>	8
3.1.2	<i>Audit period</i>	9
3.1.3	<i>Audit criteria</i>	9
3.1.4	<i>Methodology</i>	9
3.2	TERMINOLOGY	10
4.0	AUDIT FINDINGS	11
4.1	COMPLIANCE WITH CONDITIONS	11
4.1.1	<i>Compliance with Schedule 1</i>	11
4.1.2	<i>Compliance with Environmental Management Program actions</i>	11
4.2	OVERALL AUDIT FINDINGS AND RECOMMENDATIONS	16
	REFERENCES	17
	APPENDIX 1 – STATEMENT OF COMPLIANCE	18
	APPENDIX 2 – MINISTERIAL STATEMENT 938 AUDIT TABLE	21
	APPENDIX 3 - STATEMENT 938 SCHEDULE 1 AUDIT TABLE	25
	APPENDIX 4 - ENVIRONMENTAL MANAGEMENT PROGRAM (SUB-PLAN) AUDIT TABLES	27
	APPENDIX 5 - EVIDENCE REGISTER	84

TABLES

Table 1 - Project details and status of WA EP Act (1986) approvals	6
Table 2 – Other environmental approvals relevant to the Ord River Irrigation Area Stage 2 footprint	6
Table 3 - Compliance reporting condition requirements	7
Table 4 - Application of CAP methodology	10
Table 5 - Compliance assessment terminology	10
Table 6 – Potential EMP non-conformances summary	12
Table 7 – PNC aggregation and recommendations	15

APPENDIX 4 SUB-PLAN TABLES

EMP Compliance Table 1 - Soil conservation management actions	27
EMP Compliance Table 2 - Soil monitoring regime	29
EMP Compliance Table 3 - Chemicals management actions	32
EMP Compliance Table 4 - Chemical use monitoring table	36
EMP Compliance Table 5 - Dust and particulate management actions	37
EMP Compliance Table 6 - Dust and particulate monitoring regime	39
EMP Compliance Table 7 - Weed, plant pathogen and pest animal management actions	39
EMP Compliance Table 8 - Weed, plant pathogen and pest animal monitoring regime	47
EMP Compliance Table 9 - Surface water management actions	48
EMP Compliance Table 10 - Surface water monitoring regime	49
EMP Compliance Table 11 - Groundwater management and monitoring actions	50
EMP Compliance Table 12 - Groundwater contingency actions	54

EMP Compliance Table 13 - Discharge management actions	56
EMP Compliance Table 14 - Discharge monitoring regime and corrective actions	64
EMP Compliance Table 15 - Biodiversity and habitat management actions.....	66
EMP Compliance Table 16 - Biodiversity and habitat management monitoring regime	68
EMP Compliance Table 17 - Buffer management actions	69
EMP Compliance Table 18 - Buffer monitoring actions	73
EMP Compliance Table 19 - Rehabilitation management actions	73
EMP Compliance Table 20 - Rehabilitation monitoring regime.....	78
EMP Compliance Table 21 - Aboriginal heritage management actions	80

ACRONYMS AND ABBREVIATIONS

CALIM	Common Area Lease and Infrastructure Management (Agreement)
CAP	Compliance Assessment Plan
CAR	Compliance Assessment Report
CEO	Chief Executive Officer (of the Office of the Environmental Protection Authority)
DAFWA	Department of Agriculture and Food Western Australia
DPIRD	Department of Primary Industries and Regional Development (previously DAFWA)
DSD	(former) Department of State Development
DW1GS	DW1 Gauging Station
DWER	Department of Water and Environmental Regulation
EMIA	Environmental Management Instrument Agreement
EMP	Environmental Management Program (or Plan)
EPA	Environmental Protection Authority
EP Act	Environmental Protection Act 1986
EPBC Act	Environment Protection and Biodiversity Conservation Act 1999 (Cwth)
FPDP	Final Project Design Plan
Goomig	Goomig farm area, also known as the Weaber Plain farm area
GL	Gigalitres
GMP	Groundwater Management Plan
ha	Hectare
IRG	Independent Review Group
KAI	Kimberley Agricultural Investment Pty Ltd
km	Kilometres
MG	Miriuwung and Gajerrong (Corporation)
ML	Megalitres
MS938	Ministerial Statement 938
OEPA	Office of the Environmental Protection Authority
OIC	Ord irrigation Cooperative
ORIA	Ord River Irrigation Area
RIWI Act	Rights in Water and Irrigation Act 1914
SGDMP	Stormwater and Groundwater Discharge Management Plan
SPV	Special Purpose Vehicle
tpa	Tonnes per annum

ACKNOWLEDGEMENTS

The auditor acknowledges the previous audits undertaken by Strategen (2015, 2016, 2017), from which background information and advice has been drawn in the conduct of this current compliance assessment.

Mr Wayne Paul from Kimberley Agricultural Investment Pty Ltd was interviewed informally on multiple occasions, and formally during a site inspection on 28 December 2017.

Ms Jo-Anne Ellis from DPIRD provided evidence and responses to queries on behalf of the proponent.

Given the timing of the engagement to conduct the audit, a formal audit interview was unable to be conducted during the 2017 operating (farming) season.

1.0 Introduction

This Compliance Assessment Report (CAR) for the Ord River Irrigation Area Stage 2 (M2 Supply Channel) addresses compliance with Ministerial Statement 938 (MS938) and the associated *Environmental Management Program* (EMP) for the period 1 January 2017 to 31 December 2017. The Project approval was granted under the Environmental Protection Act 1986 (EP Act).

The project allows for the development of up to 30,500ha of land for irrigated agriculture in the East Kimberley, with an additional 3,000ha for infrastructure and 42,500ha as buffer area.

Alternatively known as 'Ord Stage 2', the Weaber Plain development commenced in 2010, and is now also referred to as the Goomig farmlands. The development of the Knox Creek Plain is yet to commence, however approvals were finalised in 2015. Both land areas are managed by Kimberley Agricultural Investment Pty Ltd (KAI) following the issuing of a lease in late 2017.

Proponency transferred from the Western Australian Minister for State Development to the Minister for Regional Development (DPIRD) on 12 December 2017.

In mid-2017, at the request of the Office of the Environmental Protection Authority (OEPA), a full review of the Weaber Plain EMP commenced. This revision is being undertaken in part to comply with new OEPA guidelines for EMPs (EPA, 2017) and in part to address the issues raised by previous auditors regarding the existing EMP. At the time of audit, a response from the OEPA on the revised draft EMP was yet to be received. As such, this CAR relates to the existing, 2013 EMP, which was originally prepared for construction purposes. The recommendations of previous auditors in relation to revising the EMP are retained in the knowledge that this process is under way and is anticipated to be finalised before the next (2018) audit is completed.

With the EMP currently undergoing review, and the timing of the proponency transfer in late 2017 (following application to the OEPA in August 2017), the task of conducting the audit was not enacted by either the old or new proponent until late in December. This timing has affected the ability to conduct the audit inspections during the operating season, however the auditor had visited Goomig on a number of occasions for environmental inspections in 2017, and drew on evidence from these visits, including photographs and field notes, to support the review.

A Compliance Assessment Plan (CAP) prepared by Strategen (2013) in relation to the Project was approved by the Office of the Environmental Protection Authority (OEPA) in late 2013. The CAP provides the basis for the methodology and structure of this report.

1.1 Project background

DPIRD holds the approval to develop land for irrigated agriculture across the Weaber, Keep River and Knox Creek Plains, located north-northeast of Kununurra in the eastern Kimberley region of WA and extending to the Northern Territory. The area of development (referred to as the M2 Area) is northeast of the Ord River Irrigation Area (ORIA), with the development representing the second stage of the ORIA scheme. In total, the M2 area comprises approximately 76 000 ha (including Buffer Areas). The name 'M2 area' refers to the agricultural land able to be serviced for irrigation from the main irrigation channel (the 'M2 channel').

Project development commenced in 2010, with the first phase of the Ord Stage 2 project, resulting in the construction of infrastructure (roads; channels; drainage network) to service the Weaber / Goomig farmlands.

Farming on Goomig commenced in 2015.

1.2 Project approvals

The M2 area is subject to a number of environmental approvals, issued to both the proponent and other land users.

Table 1 and Table 2 respectively present approvals relevant to the immediate vicinity of the M2 area:

Table 1 - Project details and status of WA EP Act (1986) approvals

Descriptor / Requirement	Detail
Proponent	Minister for Regional Development
Approval – EP Act 1986	Ministerial Statement 938, issued 12 June 2013
Approved Final Project Design Plan – Weaber Plain (2012)	<i>Ord River Irrigation Area – Weaber Plain Development</i>
Approved Environmental Management Plan - Goomig	<i>Ord River Irrigation Area – Weaber Plain Development Project Environmental Management Program</i> dated October 2013
Approved Final Project Design Plan – Knox Creek Plain (2017)	<i>Ord River Irrigation Area – Knox Creek Plain</i> , including amendment to accommodate Moonamang Road extension works being undertaken for the WA government by LandCorp.
Approved Environmental Management Plan - Knox	<i>Ord River Irrigation Area – Knox Creek Plain Environmental Management Program</i> dated August 2015

Table 2 – Other environmental approvals relevant to the Ord River Irrigation Area Stage 2 footprint

Area	Approval	Approval Authority	Approval (Proponent)	Holder	Direct Relevance?
Weaber Plain [Goomig]	EPBC 2010/5491	Cwth Minister for the Environment under Environment Protection and Biodiversity Conservation (EPBC) Act 1999	Department of Primary Industries and Regional Development		Some overlapping requirements with Statement 938 / EMP
Knox Creek Plain	EPBC 2014/7143	Cwth Minister for the Environment under EPBC Act 1999	Kimberley Agricultural Investment Pty Ltd (KAI)		Some overlapping requirements with Statement 938 / EMP
Weaber Plain [Goomig]	SWL179228	Surface water licence issued under Rights in Water and Irrigation (RiWI) Act 1914	KAI		Associated Operating Strategy requires compliance with environmental approvals
Knox Creek Plain (north)	EPBC 2017/7856	Cwth Minister for the Environment under EPBC Act 1999	Department of State Development		' <i>Not a controlled action</i> ' assessment for Moonamang Road extension through northern Knox Creek Plain
Sorby Hills	EPBC 2011/6230	Cwth Minister for the Environment under EPBC Act 1999	Sorby Management Pty Ltd		<i>No direct implications</i> however area overlaps part of M2 area (subject of Statement 938)
Sorby Hills	Ministerial Statement 964	WA Minister for the Environment under EP Act 1986	Sorby Management Pty Ltd		<i>No direct implications</i> however area overlaps part of M2 area (subject of Statement 938)

The approvals cited in Table 2 are not the subject of this CAR, however are referenced where necessary. Further discussion on the linkages between the external approvals and Statement 938 is provided in the 2016 audit Statement 938 CAR (Strategen, 2017).

1.3 Proponent

At the commencement of the audit period (January 2017), the proponent was the Minister for State Development. Transfer to the Minister for Regional Development occurred at the end of the audit period (12

December, 2017). The Department of Primary Industries and Regional Development (DPIRD) manages the obligations on behalf of the Minister.

2.0 Current status

2.1 Clearing, development and operation

The Goomig farm area lease and Common Area Lease and Infrastructure Management Agreement (CALIM) were executed on 21 November 2017. The Environmental Management Instrument Agreement (EMIA) was not executed at the time of audit, but was agreed between KAI and MG Corporation, as Goomig leasehold and freehold land owners. The Special Purpose Vehicle (SPV) to oversee environmental obligations had not been established.

The Minister for Regional Development remains the proponent as the planned transfer of proponenty to KAI cannot occur until the EMIA and SPV are approved by the WA Government.

2.1.1 Weaber Plain – Goomig

Completion of the clearing on Lot 13 occurred in 2017. KAI continued to develop lands that had undergone the initial clearing stages in previous years. Cropping continued on lots 14/17/18 and lots 3/5, and commenced on Lot 9. Tailwater return systems were operated, with a new tailwater system for lots 19/20/21 constructed. The preparation for farming of lots 1, 2, 6, 8 and 12 continued.

2.1.2 Knox Creek Plain

The development of the Knox Creek Plain did not commence within the audit period. Environmental management requirements such as bore monitoring continued on the Knox Creek Plain, however the use of the land remains as pastoral grazing.

2.2 Changes to approvals and management arrangements

As noted earlier, the proponenty transferred from the Minister for State Development to the Minister for Regional Development in late 2017. While representing the former proponent, the Department of State Development (DSD) sought variation to the *Knox Creek Plain Final Project Design Plan* (FPDP) (KBC, 2017) to accommodate the five kilometre realignment of Moonamang Road to the WA border. The revised FPDP was accepted by the OEPA on June 23, 2017.

The Moonamang Road extension was also assessed by the Australian Government under the EPBC Act 1999 and was deemed to be 'not a controlled action'.

2.3 Proposed changes to the Compliance Assessment Plan

Condition 4 of Statement 938 requires the following:

Table 3 - Compliance reporting condition requirements

4	Compliance Reporting
4-1	The proponent shall prepare and maintain a Compliance Assessment Plan to the satisfaction of the CEO (Chief Executive Officer of the Environmental Protection Authority)
4-2	The Compliance Assessment Plan shall indicate:
4-2 (1)	The frequency of compliance reporting;
4-2 (2)	The approach and timing of the compliance assessments;
4-2 (3)	The retention of compliance assessments;
4-2 (4)	Reporting of potential non-compliances and corrective actions taken;
4-2 (5)	The table of contents of compliance reports; and
4-2 (6)	Public availability of compliance reports.
4-3	The proponent shall assess compliance with conditions in accordance with the Compliance Assessment Plan required by Condition 4-1.

4-4	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.
4-5	The proponent shall advise the CEO of any potential non-compliance within 7 days.
4-6	The proponent shall submit a compliance assessment report annually from the date of issue of this Statement addressing the previous twelve month period or other period as accepted by the CEO. The compliance acceptance report shall:
4-6 (1)	Be endorsed by the proponent's Managing Director or a person delegated to sign on the Managing Director's behalf;
4-6 (2)	Include a statement as to whether the proponent has complied with the conditions;
4-6 (3)	Identify all potential non-compliances and describe corrective and preventative actions taken;
4-6 (4)	Be made publicly available in accordance with the Compliance Assessment Plan; and
4-6 (5)	Indicate any proposed changes to the Compliance Assessment Plan as required by Condition 4-1.

The Compliance Assessment Plan (CAP) established under Condition 4 was approved by the CEO in late 2013. This report complies with the CAP, which was prepared in accordance with EPA guidelines:

- *Post Assessment Guideline for Preparing a Compliance Assessment Plan* (OEPA 2012a)
- *Post Assessment Guideline for Preparing an Audit Table* (OEPA 2012b)
- *Post Assessment Guideline for Making Information Publicly Available* (OEPA 2012c).

The CAP also requires an assessment of the proponent's performance in relation to Conditions 5-1, 6-1 and 7-2 of MS938, as follows –

Condition 5-1:

The proponent shall implement the proposal in accordance with the "Environmental Management Programme" dated July 2011, or subsequent revisions approved by the CEO.

Condition 6-1:

The proponent shall implement the proposal in accordance with the Final Project Design Plan dated July 2011, or subsequent revisions approved by the CEO.

Condition 7-2:

The proponent shall implement the Final Decommissioning Plan required by Condition 7-1 until such time that the CEO determines that decommissioning is complete.

The CAP stipulates that the CAR will include:

- An overall statement of compliance with the requirement to implement each plan.
- A declaration of compliance status for each of the key requirements and/or objectives of each program/plan including information/documentation which supports/verifies the declared compliance status.
- A review of the performance and effectiveness of each program/plan in achieving the environmental outcomes required, including assessing the results of any required monitoring.

(Strategen, 2013a, p4.)

The CAP will be revised to accommodate the new EMP when this is finalised by the proponent and accepted by the OEPA. This will be informed by suggestions made in the current CAR (this document) and previous CARs relating to Statement 938.

3.0 Audit methodology

3.1 Plan

3.1.1 Purpose and scope

The 2017 audit of compliance with the conditions of Statement 938 and the associated EMP has been undertaken to meet the requirements of Condition 4 of Statement 938 (refer to Table 3 for condition details).

The audit was undertaken with the knowledge that a revised EMP, prepared to meet the *Instructions on how to prepare Environmental Protection Act 1986 Part IV Environmental Management Plans* (EPA, 2017), was submitted by the Proponent to the OEPA in October 2017. At the time of audit and subsequent report preparation, a response from the OEPA was yet to be received. The revised EMP, when approved, will address

inconsistencies, duplication and other items of concern as addressed in previous audits (Strategen 2017; 2016; 2015) which have been identified post-construction.

Those items deemed by previous auditors to be *completed* were not reassessed during this audit.

3.1.2 Audit period

This report addresses the 12- month period from 1 January 2017 to 31 December 2017.

3.1.3 Audit criteria

Audit criteria used in this review are based on the conditions of approvals and Schedule 1 of MS 938 and key actions of the *ORIA Stage 2-Weaber Plain Development Project Environmental Management Program* (DSD 2013) and the addendum *Ord River Irrigation Area Knox Creek Plain Environmental Management Program* (Knox EMP, KBC 2015). The criteria align with those adopted in previous audits (for example, Strategen 2017; 2016; 2015).

Incorporated into the audit are considerations of -

- The implementation and effectiveness of communication and reporting procedures;
- The controls and procedures in place to ensure the implementation of management actions occurs effectively and in a timely manner;
- The adequacy and effectiveness of the communication to personnel of matters including environmental procedures and changes to practices; and
- The relevance and applicability of the actions to the current, post-construction/operational phase of the Goomig development, in line with previous audit recommendations, and the knowledge that a full EMP review was under way at the time of audit.

3.1.3.1 Ministerial Statement 938

An audit table has been prepared for condition 4-1 of MS 938 in accordance with the approved CAP. The audit table contains each condition separated into audit elements for auditing purposes (i.e. the audit criteria), and includes the following headings:

1. Audit code: Ministerial Statement reference number.
2. Subject: The environmental theme/issue.
3. Action: What the proponent must do.
4. How: The manner in which the requirements of an audit element should be achieved.
5. Evidence: Information or data collected to verify compliance, i.e. report/letter/site inspection requirements.
6. Phase: Project phase applicable to audit element.
7. Timeframe: Specific timing for achieving the requirements of an audit element.
8. Status: Notes about the fulfilment of compliance using compliance status terms.
9. Further information: Additional comments to support compliance findings, where required.

The 'responsibility' column included in previous audits has been removed as KAI delivers the obligations however the Minister remains responsible as proponent.

3.1.3.2 Environmental Management Program

Audit tables containing the management and monitoring actions from the EMP and its addendum the Knox EMP have been prepared. The majority of actions from the Knox EMP were identical to actions contained within the Weaber EMP; however, conformance with these actions was assessed separately for each area. Where Knox EMP actions differed, additional audit items have been included in the EMP audit tables and labelled in the item column as *KEMP*. Where an audit item is not relevant to a particular area, the item has been assessed as Not Applicable (NA).

3.1.4 Methodology

In line with the approved CAP, the methodology for the compliance assessment comprised approaches as summarised in Table 4:

Table 4 - Application of CAP methodology

Requirement	Application during 2017 Compliance Assessment
One or more annual site inspections	Formal site inspection conducted for this audit on 28 December 2017. Regular site inspections and informal compliance review checks were conducted throughout 2017 operating season, including a full site inspection on 3 May 2017. These regular inspections incorporated advice to the land manager (KAI) regarding active management to ensure compliance with the Statement 938 conditions and EMP actions.
On-site and off-site consultation with and interviews of proponent, sub-contractor and other personnel in positions appropriate to inform the audit process	Compliance interviews were conducted with KAI staff 28 December 2017 and informally prior to these dates. Ongoing compliance discussions with DPIRD and KAI staff throughout 2017 operating season.
Compilation, review and assessment of documentary evidence	January to June 2018. This includes follow-up with DPIRD and KAI staff regarding 2017 practices and compliance. Sampling of evidence was used where appropriate.

As the auditor was appointed late in the 2017 season, full compliance auditing during the operating (dry) season was not possible. However, the auditor has drawn on previous visits to the Goomig farmlands during the 2017 season, supported by notes, photographic evidence and other records (for example, monitoring records) to support the assessments contained in this CAR.

3.2 Terminology

Each audit table contains a 'Status' field which describes the auditor's assessment of compliance with the implementation of the action, condition, procedure or commitment. Although the CEO of the OEPA makes the final determination of compliance, it is necessary to update this field each reporting period, as the project progresses. The OEPA (2012a, 2012b, 2012c and 2012d) has prepared guidance related to the preparation of compliance audits, including generic expressions that are used to identify the status of each item

Table 5 - Compliance assessment terminology

Status	Description
Compliant (Conformant)	Implementation of the proposal has been carried out in accordance with requirements of the audit. (Conformant – as above in relation to actions of management plans / programs).
Completed	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 (Potentially non-conformant)	Possible or likely failure to meet the requirements of the audit element. (Potentially non-conformant – as above in relation to actions of management plans / programs).
In process	Where an audit element requires a management or monitoring plan 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 by the OEPA or the other government agency and assessment by the OEPA or other government agency for approval is still pending.

Source: adapted from OEPA (2012b)

4.0 Audit findings

4.1 Compliance with conditions

The results of the audit of MS 938 are shown in Appendix 2. A total of 15 items were audited. While not a non-compliance with the requirements of Statement 938, the auditor identified a potential process issue in relation to incident reporting. In 2017, a flow of Ord Stage 1 tailwater occurred in the vicinity, which flowed through Border Creek to the Keep River. While not technically a PNC with regard to Statement 938 or EMP (as it did not originate from the M2 area), the auditor considers it appropriate that the OEPA should have been included in correspondence from the proponent to the Independent Review Group (IRG) overseeing the Commonwealth EPBC approval water-related management plans.

The auditor identified that of 178 audit items assessed for the EMP (required to be implemented under condition 5-1), 15, or approximately 9%, of management actions were potentially non-conformant.

As with previous audits (undertaken by others), the majority of these actions relate to an aspect of formal monitoring that is currently not being undertaken, or is being partially undertaken, as prescribed in the EMP. Monitoring is, however, being undertaken as guided by the EPBC Act approval and the IRG, particularly with respect to groundwater and surface water. There were no reported or auditor-observed material environmental impact of significance as a result of the PNCs in the 2016 audit (Strategen, 2017) other than a minor clearing incident which was reported to the regulators.

The auditors note that most of the identified PNCs were also identified in previous years (i.e. they are yet to be remedied and the previously recommended revisions to the EMP are yet to be finalised).

The auditor's assessment is that the intention of the EMP is likely being met, however the management and monitoring arrangements around groundwater, stormwater and vegetation condition remain areas for reassessment of conditions and required actions, per previous audit advice.

4.1.1 Compliance with Schedule 1

Condition 1-1 of MS938 requires implementation of the proposal as documented in Schedule 1 of the Statement. Results of the audit of the implementation of the key characteristics contained in Schedule 1 are outlined in Appendix 3. No potential non-compliances with Schedule 1 were identified.

4.1.2 Compliance with Environmental Management Program actions

As stated in the 2015 and 2016 CARs, based on feedback from KAI (and previously, LandCorp) during the audit process, the auditor and previous auditors suggest many of the potential non-conformances highlight a need for the revision of these actions due to the reported:

- impracticality of implementation;
- increased knowledge of actual impacts based on baseline study results;
- operational experience;
- prescriptive requirements not necessarily achieving best environmental outcome; and
- frequency of monitoring being incongruent with industry practice.

The auditor notes that these issues are currently being addressed in the revision of the EMP, which will meet current guidelines (EPA, 2017). The revised EMP is yet to be finalised.

PNCs are summarised in Table 6, followed by aggregated auditor recommendations (by environmental factor).

Table 6 – Potential EMP non-conformances summary

ITEM	ACTION	AUDIT FINDING
EMP 54	Conduct weed surveys along permanent weed survey transects (and opportunistically between permanent weed survey transects) to establish baseline information (i.e. weed species and density / cover / distribution of weeds) and identify and update Priority Areas for management and control. Priority Areas will be defined by: weed infested areas (e.g. monocultures of neem trees, weed density/cover greater than 50%); areas that have declared noxious weed species and Weeds of National Significance (WONS); areas declared as local priority in consultation with DPW AND/OR DER, DAFWA and Ord Land and Water Inc.	This action remains a technical PNC as weed inspections are now undertaken in areas adjacent to farming and monitoring tracks and around bores, where impacts from human activity would be most noticeable, differs from the prescribed approach. Refer to Strategen (2017) previous audit for further discussion. The auditor supports the review the action (and all other related actions, e.g. EMP 55, EMP 76) including confirmation of the relevance of the original transects as well as the third dot point regarding consultation.
EMP 76	Density/ cover/ distribution of weed species in the permanent weed survey transects and common use infrastructure areas.	As with previous audit findings, density/cover/distribution of weed species in the permanent weed survey transects is not explicitly measured. As such, the auditor has assessed this item as potentially non-conformant. However, given that the majority of common use areas are slashed (eg drains, channel banks) and that regular informal inspections occur, followed by weed treatment, the intent of this monitoring action – to ensure the minimising of weed infestations in common areas – is being incorporated into day-to-day farming activity. Previous audits have recommended that this action be revised.
EMP 84	Undertake monitoring of the parameters determined under Item 2 in bores established under EMP 83.	The 2015 and 2016 auditors (Strategen) noted that: KAI advised that for low intensity bores it has, with IRG endorsement, adopted the monitoring regime recommended by DAFWA (now DPIRD) following analysis of the 3-year baseline results. Triennial atrazine and metals monitoring in high intensity bores occurred in the dry season of 2017. Nutrient and other parameters were also tested across the bores in the dry season of 2017. In situ parameters were assessed in both seasons. KAI advised that data logger downloading to secure daily temperature and depth data was undertaken by DPIRD staff in October 2017. Results were not available at the time of this audit. Groundwater levels, EC and pH were recorded by the loggers for high intensity bores. However, monitoring of pesticides was not undertaken [as this is not a requirement of the Independent Review Group, following baseline studies]. It is this element of the action that indicates the PNC. The 2015 recommendation is retained. Previous auditors recommended that a review of the groundwater monitoring regime required under the EP Act (i.e. this EMP) for both the Weaber and Knox Creek Plains is undertaken to ensure alignment and consistency with the EPBC Act approval (and any variation to that approval) as informed and recommended by the IRG to the satisfaction of the OEPA.
EMP 89	Ongoing – database to be updated at least every six months with the database to be established prior to June 2013.	2017 season records were retained and provided, however the database (2017.EMP89) had not been updated at the time of the audit. The PNC relates to the database not being updated with recent monitoring data.

ITEM	ACTION	AUDIT FINDING
EMP 90	Ongoing – database to be updated annually.	Refer to EMP 89.
EMP 94	Groundwater levels, soil salinity and quality exceed or are likely to exceed trigger levels	This PNC is carried forward from 2016 (Strategen, 2017). Soil salinity monitoring has been undertaken during the audit period. Groundwater quality data provided now includes trigger levels for some (but not all) of the analytes listed under EMP 84. No information was provided in relation to how exceedances are to be addressed. In line with the previous (2016) recommendation, the finding of this audit is that the groundwater monitoring actions are reviewed in consideration of the requirements of the EPBC approval, in conjunction with the IRG and the Department of Environment and Energy, and the OEPA, to ensure the intent of the groundwater actions, the monitoring regime and corrective actions are satisfactory. It is noted that the EMP review is in progress. 2017.EMP94 provides a letter from the IRG to the Minister for the Environment, similarly seeking a full review of groundwater monitoring and management requirements.
EMP 95	Levels of chemicals and nutrients exceed scenarios that show: an increasing trend in the concentration of any chemical (at statistical confidence levels); an exceedance of the site-specific triggers for a particular chemical over two consecutive years.	The 2016 audit finding (Strategen, 2017) is retained – <i>"the information provided is inadequate to readily determine if this action has been conformed with; as such, the auditors conclude this item is potentially non-conformant. However, as discussed above, the auditors acknowledge revisions to the monitoring and management regime based on DAFWA studies and IRG advice and anticipate these changes address the intention of this EMP action; however, this should be confirmed with the OEPA and the EMP revised accordingly to avoid ongoing ambiguities and potential inconsistencies."</i> Previous auditors recommended this action is revised to satisfaction of OEPA. This current audit similarly concludes that a full review of the EPBC Groundwater Monitoring Plan and associated actions and monitoring regime is required, in conjunction with the IRG, noting that the groundwater actions included in the 2013 EMP (as the basis for this audit) were taken from the EPBC-approved Groundwater Management Plan. Subsequent post-baseline management changes under the EPBC approval have resulted in inconsistencies between the documents, which need to be addressed with the approval of both State and Commonwealth regulators.
EMP 108	Refine flow trigger values for the Keep River and Border Creek gauging station based on the refined discharge dilution model and Operational Surface Water Model.	As identified in 2015 and 2016, the auditors were advised that flow-trigger values have still not been established; hence this item remains potentially non-conformant. However, as indicated in the 2016 audit (Strategen, 2017) <i>'The combined pool volume of the K1, K2 and K3 pools is 1.26GL (Surrich 2014). In the event that a dry season flow occurred through the DW1 Gauging Station, it is likely that (a) much of the flow would soak into the dry ground, and not make it to the Keep River; and (b) if the flow was substantial enough to make it to the Keep River, flushing 1.26GL+ of freshwater from the M2 channel would flush the pools and provide for sufficient dilution. Flushing with M2 water in the event of a dry season tailwater flow is the mandated mitigation action under the EPBC approval. As such, flow trigger values are not really needed. In the event of a dry season flow, M2 channel flushing would occur to mitigate risk if the flow was sufficient to make it to the Keep River'</i> . Previous audits have recommended this action be revised. The IRG (see 2017.EMP100b and 2017.EMP102b), upon reviewing 2017 surfacewater monitoring reports, reached a

ITEM	ACTION	AUDIT FINDING
		similar conclusion regarding all surface water monitoring and management arrangements.
EMP 133	Assess vegetation condition using the Keighery (1994) rating scale and update vegetation condition map.	This action is recorded as a PNC as the Keighery scale is not applied and vegetation condition mapping is not routinely updated. However, the intent of the action is being met, as evidenced through the photographic evidence samples (2017.EMP.133a through to 2017.EMP.133r) showing no decline in vegetation condition near tracks and around bores. KAI advised these inspections are undertaken during the bi-annual bore monitoring rounds. The previous audit suggestion to amend this action is supported.
EMP 135	Survey reference sites identified in EMP 134 to determine indicator species, density of native species, % cover of native species, native species richness and % weed cover as outlined in the monitoring procedures.	KAI advised that monitoring of rehabilitation areas is now undertaken consistent with revised buffer monitoring, whereby condition is assessed and weed presence and any inconsistency with adjacent land is noted. Indicator species in rehabilitation sites. Reference site surveys are not being undertaken. Photographic records of rehabilitation site progress are retained by KAI.
EMP 162	Native species richness, density and % cover within rehabilitation sites as outlined in the monitoring procedures.	Refer to EMP 135.
EMP 163	Indicator species in rehabilitation sites.	Refer to EMP 135.
EMP 164	Exotic species richness and % cover within rehabilitation sites as outlined in the monitoring procedures.	Refer to EMP 135.
EMP 166	Implement an induction program for personnel and contractors/consultants, and an information package for farm owners/managers, both of which containing information on: significance of Aboriginal heritage and the potential impacts of the project; procedures to report potential new sites; obligations under the Aboriginal Heritage Act 1972 (WA); and requirements for the protection of known Aboriginal sites.	Current KAI induction process does not explicitly include Aboriginal Heritage obligations.

ITEM	ACTION	AUDIT FINDING
EMP 171	Site heritage monitors from MG Corporation issued with a permit under Section 16 of the Aboriginal Heritage Act 1972 (WA) will be on-site to monitor clearing and earthworks activities.	Only minor clearing within Lot 13 was undertaken during this audit period. KAI advised that site heritage monitors from MG Corporation were not present during this clearing.

In relation to the audit of 2017 management of compliance with Statement 938 and the associated EMP, the potential non-compliances listed in Table 6 can be aggregated as follows:

Table 7 – PNC aggregation and recommendations

EPA Factor		PNCs	Auditor comment
Inland waters	Surface water	1	A review of the Stormwater and Groundwater Discharge Management Plan (SGDMP) required under the associated EPBC approval 2010/5491 has been requested by the IRG which oversees the water-related conditions of that approval. This review is being undertaken in 2018. The auditor recommends the current revision of the Statement 938 EMP take into account the surface water monitoring and management requirements arising from the SGDMP review.
Inland waters	Groundwater	5	Inconsistencies between the groundwater management actions in the EMP, and those in the EPBC Groundwater Management Plan (GMP) which have been subsequently amended by the IRG as overseeing body, particularly in relation to the post-baseline monitoring regime, need to be addressed in parallel. The IRG has requested a review of the GMP requirements. The auditor recommends that the EMP revision currently being undertaken considers the outcomes of the IRG discussions and subsequent (anticipated) changes to the GMP mandated by the Commonwealth approval. The intent of this recommendation is to ensure congruency and to facilitate outcomes-based (ie, trigger or indicator-based) targets and minimum standards in lieu of prescriptive requirements currently contained in the EMP.
Flora and vegetation	Weeds and vegetation	7	Non-compliances identified pertaining to vegetation condition and, weed and rehabilitation monitoring relate largely to the non-conformance with prescriptive monitoring requirements. Site inspections and comparative photographic analysis since, in particular, the removal of cattle from the buffer areas, indicate that vegetation condition decline has not occurred. Similarly, site inspections and photographic evidence of rehabilitated areas show no decline in condition. As such, the auditor recommends the EMP revision reconsiders the prescriptive nature of the monitoring required, and focuses on biodiversity outcomes.
People	Aboriginal heritage	2	Compliance with the Aboriginal Heritage Act 1972 is a legal obligation. Under current EPA requirements (EPA, 2017), legal obligations are taken as given, and it is not expected that statutory obligations are incorporated into the revised EMP. Nonetheless, it is recommended that Aboriginal heritage reporting processes be included in the KAI induction package.
TOTAL		15	

4.2 Overall audit findings and recommendations

Previous audits (Strategen 2015, 2016, 2017) have recommended changes to a number of actions in the EMP. In 2017, review of the EMP commenced, but was not completed. Under the associated Commonwealth approval (EPBC 2010/5491), review of the stormwater monitoring, management and modelling requirements, and of groundwater monitoring, has been requested by the Independent Review Group. Previous auditors have identified that clarity needs to be made about the role of the IRG in overseeing those EPBC management plan actions which have been incorporated into the EMP. The revision of the EMP may address this issue, however the role of the IRG needs to be considered in relation to if or how responsibility for review of the duplicated EMP actions (relating to surface and groundwater) will occur.

Previous auditor recommendations (Strategen 2017) to clarify actions and monitoring requirements and remove ambiguities remain:

1. *The farm lots are currently being managed by one operator (KAI) rather than the original plan for individual lot owners. This provides a basis for the need to review the entire EMP to remove reference to individual lot owners and any management actions that were included to effectively manage a number of individuals.*
2. *Deletion of actions that have been completed and do not need to be undertaken for future stages.*
3. *Amendment of actions that have proved impractical or unnecessary to implement on site given current experience operating the farm lots, while still ensuring removal of actions will not result in increased environmental impact.*
4. *Amendment of monitoring requirements based on increase in knowledge of the environmental impacts of the project and practicality to implement. Note: any revision of monitoring requirements in the EMP needs to be done concurrently with revision of EPBC Act approval requirements and approved management plans to ensure consistency.*
5. *Amalgamation of Weaber Plain and Knox Creek Plain EMPs to remove discrepancies in management between these two plans to ensure reduced risk in potential non-conformance and a more streamlined auditing process for future CARs.*
6. *Evaluation of EMP against management plans required under relevant EPBC approvals, to ensure consistency and removal (through EMP revision) of discrepancies, while still ensuring environmental objectives of all plans will be achieved.*
7. *Potential revision of Aboriginal heritage management requirements given MG Corporation involvement in the project. Note: Any revision should be undertaken in consultation with MG Corporation and Department of Aboriginal Affairs.*

(Strategen, 2017)

Given the timing of this audit while the EPBC-conditioned monitoring and management actions are being reviewed simultaneously to the EMP revision, it is imperative that they be undertaken in unison.

References

Environmental Protection Authority, 2000, *Ord River Irrigation Area Stage 2 (M2 Supply Channel), Kununurra Part 1 – Biodiversity Implications. Report and Recommendations of the Environmental Protection Authority*, Bulletin 988, August 2000.

Environmental Protection Authority, 2001, *Ord River Irrigation Area Stage 2 (M2 Supply Channel), Kununurra Part 2 – Management. Report and Recommendations of the Environmental Protection Authority*, Bulletin 1016, May 2001.

Environmental Protection Authority, 2017, *Instructions on how to prepare Environmental Protection Act Part IV Environmental Management Plans*. OEPA, Perth.

Department of State Development, 2013, *Ord River Irrigation Area – Weaber Plain Development Project: Environmental Management Program*, October 2013.

Kimberley Boab Consulting, 2015, *Ord River Irrigation Area Knox Creek Plain Environmental Management Program*, Prepared for Kimberley Agricultural Investment Pty Ltd, August 2015.

Kimberley Boab Consulting, 2017, *Knox Creek Plain Agricultural Development Final Project Design Plan*, Prepared for Kimberley Agricultural Investment Pty Ltd, amended for LandCorp, June 2017.

Kinhill Pty Ltd (Kinhill), 2000, *Ord River Irrigation Area Stage 2 Proposed Development of the M2 Area Environmental Review and Management Program / Draft Environmental Impact Statement*, Prepared for Wesfamers Sugar Company Pty Ltd, Marubeni Corporation and The Water Corporation of Western Australia, January 2000.

Office of Environmental Protection Authority, 2012a, *Post Assessment Guideline for Preparing a Compliance Assessment Plan*, OEPA, Perth, August 2012.

Office of Environmental Protection Authority, 2012b, *Post Assessment Guideline for Preparing an Audit Table*, OEPA, Perth, August 2012.

Office of Environmental Protection Authority, 2012c, *Post Assessment Guideline for Making Information Publically Available*, OEPA, Perth, August 2012.

Office of Environmental Protection Authority, 2012d, *Post Assessment Guideline for Preparing a Compliance Assessment Report*, OEPA, Perth, August 2012.

Strategen, 2013a, *Ord River Irrigation Area Stage 2 (M2 Supply Channel), Compliance Assessment Plan – Statement 938*, report prepared for Department of State Development.

Strategen, 2013b, *Ord River Irrigation Area Stage 2 (M2 Supply Channel), Compliance Assessment Report – Statement 938 [2012]*, report prepared for LandCorp.

Strategen, 2014, *Ord River Irrigation Area Stage 2 (M2 Supply Channel), Compliance Assessment Report – Statement 938 [2013]*, report prepared for LandCorp.

Strategen, 2015, *Ord River Irrigation Area Stage 2 (M2 Supply Channel), Compliance Assessment Report – Statement 938 [2014]*, report prepared for LandCorp.

Strategen, 2016, *Ord River Irrigation Area Stage 2 (M2 Supply Channel), Compliance Assessment Report – Statement 938 [2015]*, report prepared for Department of State Development.

Strategen, 2017, *Ord River Irrigation Area Stage 2 (M2 Supply Channel), Compliance Assessment Report – Statement 938 [2016]*, report prepared for Department of State Development.

Appendix 1 – Statement of Compliance

POST ASSESSMENT FORM 2

Statement of Compliance

1. Proposal and Proponent Details

Proposal Title	<i>Ord River Irrigation Area Stage 2 (M2 Supply Channel)</i>
Statement Number	938
Proponent Name	<i>Minister for Regional Development</i>
Proponent's Australian Company Number <i>(where relevant)</i>	

2. Statement of Compliance Details

Reporting Period	<i>1/01/17 to 31/12/17</i>
------------------	----------------------------

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

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

Each page (including Attachment 2) must be initialed by the person who signs Section 4 of this Statement of Compliance.
INITIALS: *DN*

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?
Was the implementation condition or procedure non-compliant or potentially non-compliant?
On what date(s) did the non-compliance or potential non-compliance occur (if applicable)?

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 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?
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)
What was the cause(s) of the non-compliance or potential non-compliance?
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?
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?
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)

For additional non-compliance or potential non-compliance, please duplicate this page as required.

Each page (including Attachment 2) must be initialed by the person who signs Section 4 of this Statement of Compliance.
 INITIALS: DS

4. Proponent Declaration

I, DEAN NEWTON, A/EXECUTIVE DIRECTOR....., (full name and position title)
declare that I am authorised on behalf of DEPARTMENT OF PRIMARY INDUSTRIES + REGIONAL DEVELOPMENT.
(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: [Handwritten Signature]..... Date: 18/7/18.....

- 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
EAST PERTH WA 6892
Phone: (08) 6364 700
Email: compliance@dwer.wa.gov.au

7. Post Assessment Guidelines and Forms

Post assessment documents can be found at www.epa.wa.gov.au

Each page (including Attachment 2) must be initialed by the person who signs Section 4 of this Statement of Compliance.
INITIALS: [Handwritten Initials]

Appendix 2 – Ministerial Statement 938 Audit Table

Audit code	Subject	Action	How	Evidence	Phase	Timeframe	Status	Further information
938:M1.1	Implementation	The proponent shall implement the proposal as documented and described in Schedule 1 of this Statement, subject to the conditions and procedures of this Statement.	Implement Proposal as described in Schedule 1	Refer schedule 1 audit table	Overall	Ongoing	Compliant	Refer schedule 1 audit table
938: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 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.	Submit written notification to the CEO of OEPA	2017.938.M2.1a 2017.938.M2.1b	Overall	Within 28 days of change of contact details.	Compliant	Proponency transfer to DPIRD occurred on 12 December 2017.
938:M3.1	Time limit for Proposal Implementation	The proponent shall not commence implementation of the proposal after the expiration of 5 years from the date of this Statement, and any commencement, within this 5 year period, must be substantial.	Commence substantial implementation of Proposal by 12 June 2018	Assessed in previous audit.	Overall	By 12 June 2018	Completed	Item assessed as completed in a previous audit period.
938:M3.2	Time limit for Proposal Implementation	Any commencement of implementation of the proposal, within 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 5 years from the date of this Statement.	Provide written evidence of substantial commencement of implementation on or before 12 June 2018	Assessed in previous audit.	Overall	By 12 June 2018	Completed	Item assessed as completed in a previous audit period.
938:M4.1	Compliance reporting	The proponent shall prepare and maintain a Compliance Assessment Plan to the satisfaction of the CEO.	Prepare a Compliance Assessment Plan and submit to the CEO of OEPA for approval	Assessed in previous audit. <i>Strategen (2013a) - Ord River Irrigation Area Stage 2 (M2 Supply Channel), Compliance</i>	Overall	Ongoing	Completed	Item assessed as completed in a previous audit period.

				<i>Assessment Plan – Statement 938</i>				
938:M4.2	Compliance reporting	The Compliance Assessment Plan shall indicate: the frequency of compliance reporting; the approach and timing of compliance assessments; the retention of compliance assessments; reporting of potential non-compliances and corrective actions taken; the table of contents of compliance reports; and public availability of compliance reports.	Prepare a Compliance Assessment Plan addressing all requirements	Assessed in previous audit. Strategen (2013a) - <i>Ord River Irrigation Area Stage 2 (M2 Supply Channel), Compliance Assessment Plan – Statement 938</i>	Overall	Prior to implementation	Completed	Item assessed as completed in a previous audit period.
938:M4.3	Compliance reporting	The proponent shall assess compliance with conditions in accordance with the Compliance Assessment Plan required by Condition 4-1.	Undertake annual compliance assessments in accordance with the approved Compliance Assessment Plan	2017.938.M4.3a Ord River Irrigation Area Stage 2 (M2 Supply Channel), Compliance Assessment Report – Statement 938 [2016].	Overall	Ongoing	Compliant	The 2016 CAR assessed compliance with conditions in accordance with the approved CAP. Submitted to OEPA 24 May 2017.
938: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.	Prepare and retain Annual Compliance Assessment Reports in accordance with the approved Compliance Assessment Plan Make compliance assessment reports available to CEO of OEPA on request	Refer to 2017.938.M4.3a.	Overall	Ongoing	Compliant	Reports retained by Strategen and DSD. The 2015 CAR was also available on the DSD website at the time of the audit. DPIRD/DSD/KAI have provided auditor with previous years' audits.
938:M4.5	Compliance reporting	The proponent shall advise the CEO of any potential non-compliance within 7 days.	Written correspondence to CEO of OEPA within 7 days of any potential non-compliance	2017.938.M4.5a 2017.938.M4.5b	Overall	Within 7 days of a potential non-compliance being known	Compliant	A Flow of Ord Stage 1 tailwater (not originating from the Goomig farmlands) was reported to the Independent Review Group (IRG) established under EPBC approval 2010/5491 at their January 2018 meeting. While technically a non-

DSD

								compliance with the EPBC approval rather than Statement 938, it remains an incident associated with (but not originating from) the M2 area which was not reported in a timely manner. Due to the incident relating to an adjacent area and with potential risk being as per the outcomes which Statement 938 seeks to avoid, the auditor believes the non-reporting to the OEPA could <i>potentially</i> classify as a PNC. The report submitted to the IRG is included with the audit evidence.
938:M4.6	Compliance reporting	<p>The proponent shall submit a compliance assessment report annually from the date of issue of this Statement addressing the previous twelve month period or other period as accepted by the CEO. The compliance assessment report shall:</p> <ul style="list-style-type: none"> o be endorsed by the proponent's Managing Director or a person delegated to sign on the Managing Director's behalf; o include a statement as to whether the proponent has complied with the conditions; o identify all potential non-compliances and describe corrective and preventative actions taken; o be made publicly available in accordance with the approved Compliance Assessment Plan; and o indicate any proposed changes to the Compliance Assessment Plan required by Condition 4-1. 	Submit Annual Compliance Assessment Reports addressing all requirements annually to OEPA	Refer to 2017.938.M4.3b – email submitted CAR to OEPA.	Overall	By June 2014 and annually thereafter	Compliant	<p>The 2015 CAR (Strategen, 2016) was prepared for and submitted by the proponent and addresses the five items outlined in this condition.</p> <p>The 2015 CAR is available on DPIRD's website.</p>

DN

938:M5.1	Environmental Management Program	The proponent shall implement the proposal in accordance with the "Environmental Management Programme", dated July 2011, or subsequent revisions approved by the CEO.	Implement approved Environmental Management Program	Refer to EMP audit tables	Overall	Ongoing	Compliant with respect to the Weaber Plain EMP Compliant with respect to the Knox Creek Plain EMP	Both the Weaber and Knox EMP documents are undergoing revision, with a draft revised EMP submitted to the OEPA for review in September 2017.
938:M6.1	Final Project Design	The proponent shall implement the proposal in accordance with the "Final Project Design Plan", dated July 2011, or subsequent revisions approved by the CEO.	Implement approved Final Project Design Plan	2017.938.M6.1	Overall	Ongoing	Completed for Weaber Plain Compliant for Knox Creek Plain	Weaber: no change since previous audit. Knox: revised FPDP approved by OEPA, June 2017.
938:M7.1	Final Decommissioning Plan	At least six months prior to the anticipated date of decommissioning, or at a time accepted by the CEO, the proponent shall prepare a Final Decommissioning Plan designed to ensure that the site is left in a suitable condition, with no liability to the State. The Final Decommissioning Plan shall be prepared in accordance with "Preliminary Decommissioning Plan", approved as part of the "Environmental Management Programme" dated July 2011 and required by Condition 5-1, or subsequent revisions approved by the CEO. The Final Decommissioning Plan shall address: removal or, if appropriate, retention of plant and infrastructure; rehabilitation of all disturbed areas to a standard suitable for the accepted new land use(s); and identification of contaminated areas, including provision of evidence of notification to relevant statutory authorities.	Prepare a Final Decommissioning Plan addressing all requirements and submit to CEO of OEPA for approval in accordance with timeframe	Final Decommissioning Plan	Overall	At least six months prior to the anticipated date of decommissioning or at a time accepted by the CEO	NR	Decommissioning relates to a later phase.

Don

938:M7.2	Final Decommissioning Plan	The proponent shall implement the Final Decommissioning Plan required by Condition 7-1 until such time as the CEO determines that decommissioning is complete.	Implement Final Decommissioning Plan	Annual Compliance Assessment Report	Decommissioning	Until such time as the CEO determines that decommissioning is complete	NR	Decommissioning relates to a later phase
938:M7.3	Final Decommissioning Plan	The proponent shall make the Final Decommissioning Plan required by Condition 7-1 publicly available, to the requirements of the CEO.	Make Final Decommissioning Plan available to stakeholder or public upon request and within 7 days of the receipt of the request	Final Decommissioning Plan publicly available	Overall	To the requirements of the CEO	NR	Decommissioning relates to a later phase

Appendix 3 - Statement 938 Schedule 1 Audit Table

Audit Code	Element	Description	Evidence	Status	Comments
S1_2.1	Land within the Project Area	Project Area 76,000ha	Site inspection conducted December 2017. KAI advice (December 28, 2017). 2017.S1_2.1 Lot 13 uncleared area track log.	Compliant	KAI advised that Lot 13 is now all but complete, with approximately 10ha retained uncleared. No further clearing is expected. A total of 7,416.21ha in Weaber Plain have been cleared as land for irrigation since commencement, with an additional 914.12ha cleared for infrastructure, for a total of 8,330.33ha.
S1_2.2		Land managed as buffer 42,500ha	Refer to previous audit – see 2017.938.M4.3a (Strategen, 2017). Site inspections undertaken – 3 May 2017 and 28 December 2017 – indicates continued buffer management and exclusion from development.	Compliant	Previous compliance reports have indicated 11,562.41ha have been set aside and managed as buffer, relating to the Weaber Plain/Goomig of the proposal. The EMP and FPDP for the Knox Creek Plain added 6,417ha to be managed as buffer, for a total of 17,979ha. Management of the buffer associated with Knox Creek Plain is yet to commence as the project has not commenced construction.
S1_2.3		Land for irrigable development 30,500ha	Refer to previous audit – see 2017.938.M4.3a (Strategen, 2017). KAI advice (December 28, 2017).	Compliant	A total of 7416.21ha in Weaber Plain have been cleared or developed as land for irrigation since commencement. See item S1_2.1.
S1_2.4		Infrastructure area 3,000ha	Refer to previous audit – see 2017.938.M4.3a (Strategen, 2017).	Compliant	No change since previous audit period. As advise by previous auditors, as-constructed shapefiles indicate

JSN

			KAI advice (December 28, 2017).		914.12 ha were cleared to 29 October 2013 (no more clearing for infrastructure has occurred since that date).
S1_2.5	Land outside the Project Area	M2 channel (lake Kununurra to project area) 690ha	KAI advice (December 28, 2017).	NR	No clearing has occurred in relation to channel works outside the Project area.
S1_2.6		Wyndham Port Facilities 1ha	KAI advice (December 28, 2017).	NR	No activity associated with the Wyndham Port Facilities has occurred or is required at this stage.
S1_2.7	Production	Raw sugar 400,000tpa	KAI advice (December 28, 2017).	NR	No production of raw sugar has occurred.
S1_2.8		Molasses 160,000tpa	KAI advice (December 28, 2017).	NR	No production of molasses has occurred.
S1_2.9	Infrastructure	Irrigation channels 160km	Refer to previous audit – see 2017.938.M4.3a (Strategen, 2017). KAI advice (December 28, 2017).	Compliant	37 km channel of constructed to date. No change since previous audit period.
S1_2.10		Annual water requirements 740GL	2017.S1_2.10a KAI water use correspondence from Ord Irrigation – Goomig 2017.S1_2.10b KAI surface water 2017 season report	Compliant	A total of 20.88GL was supplied to the Goomig farm area in 2017, of which 15.338GL was used on crops. KAI advised the remainder is accounted for by M2 channel losses, arising due to the extra capacity size (in excess of Goomig requirements) therefore evaporation and seepage losses are disproportionate to Goomig farm usage.
S1_2.11		Drains 153km	Refer to previous audit – see 2017.938.M4.3a (Strategen, 2017). Site inspection (December 28, 2017). KAI advice (December 28, 2017).	Compliant	No change since previous audit period. 51 km of major drains constructed to date. On-farm drainage included in farm area clearing and development calculations.
S1_2.12		Flood protection levees 142km	Refer to previous audit – see 2017.938.M4.3a (Strategen, 2017). Site inspections (3 May 2017 and 28 December 2017).	Compliant	No change since previous audit period. 48 km of flood protection levees constructed to date. DPIRD advised that repairs to flood levees were undertaken following high rainfall season resulting in run-off damage to levee bank infrastructure(2016-2017 wet season).
S1_2.13		Balancing storage dams (operating volume) 5.6GL	Refer to previous audit – see 2017.938.M4.3a (Strategen, 2017). KAI advice (December 28, 2017).	Compliant	No change since previous audit period. Storage Dams for Weaber Plain are contained within the M2 channel between M2C3 and M2C4. The reach of the M2 channel between the M2C3 and M2C4 structures holds up to 390 ML, of which 100 ML is considered 'Operational Storage', i.e. balancing storage.
S1_2.14		Roads 161km	KAI advice and site inspection (December 28, 2017)	Compliant	No change since previous audit period. 11.9 km of road has been constructed to date.
S1_2.15		Power lines 165km	KAI advice and site inspection (December 28, 2017)	NR	No construction of power lines has occurred to date.
S1_2.16	Wyndham Port	Raw sugar store 180,000t	KAI advice (December 28, 2017)	NR	Construction has not yet commenced.
S1_2.17		Molasses store 75,000t	KAI advice (December 28, 2017)	NR	Construction has not yet commenced.

Appendix 4 - Environmental Management Program (Sub-plan) Audit Tables

Note: In line with previous compliance assessment reports, for audit purposes the numbering of Environmental Management Program (EMP) items is sequential rather than the numbering used in the original document. Where the wording of an EMP item makes reference to other EMP items the sequential number is referenced.

EMP Compliance Table 1 - Soil conservation management actions

Item	Action	Purpose	Timing	Evidence	Weaber Plain		Knox Creek Plain	
					Status	Comment	Status	Comment
EMP 1.	Provide an Information Package to the owner/leaseholder, which outlines: <ul style="list-style-type: none"> the susceptibility of soil from disturbed areas to erosion from high intensity rainfall during the wet season soil erosion prevention measures irrigation strategies to reduce potential impacts of sodicity and salinity procedures to monitor soil salinity and sodicity. 	To reduce the potential for agricultural practices to result in erosion by ensuring prospective landowners are aware of the appropriate risks and management measures.	At sub-lease/sale of lots	Refer to previous audit – see 2017.938.M4.3a (Strategen, 2017).	Completed	Item assessed as completed in a previous audit period.	Completed	Item assessed as completed for Weaber Plain. As the same leaseholder (KAI) is responsible for Knox Creek Plain, this item was assessed by previous auditors as completed.
EMP 2.	Induct construction personnel on soil erosion control management measures.	To reduce the potential for construction activities to result in erosion by ensuring construction personnel are aware of appropriate management measures.	Within one week of personnel commencing work on-site	KAI advice (December 28, 2017). Staff and contractor induction sighted – refers generally to environmental management requirements. 2017.EMP2a KAI induction register 2017 2017.EMP2b KAI induction	NR	KAI advised that no new <i>construction</i> activities – as stipulated under this management action - were undertaken during this audit period.	NR	Construction not yet commenced.
EMP 3.	Maintain records of ground disturbing activities that include the date that the boundary of clearing was delineated, the date of clearing and location of topsoil storage.	To provide data to inform management.	During construction of shared infrastructure	KAI advice (December 28, 2017) indicates that additional clearing within Lot 13 occurred within boundaries established and cleared within previous audit periods.	Completed	Item assessed as completed in a previous audit period.	NR	Construction not yet commenced.

EMP 4.	Restrict ground-disturbing activities to the dry season wherever practicable.	To prevent ground-disturbing activities when the risk of erosion is high.	During construction of shared infrastructure	KAI advice (December 28, 2017): ground disturbance during wet season is not possible. Note – this item was assessed by previous auditors (Strategen, 2017) as being complete.	Completed	Item assessed as completed in a previous audit period.	NR	Construction not yet commenced.
EMP 5.	Ensure a drainage management system that includes a sediment trap is in place around all borrow pits.	To reduce the potential for erosion of borrow pits to result in adverse environmental impacts.	Prior to ground disturbance	Refer to previous audit – see 2017.938.M4.3a (Strategen, 2017).	Completed	Item assessed as completed in a previous audit period.	NR	Construction not yet commenced.
EMP 6.	Delineate the boundaries of the vegetation to be cleared for construction in the field with flagging tape, signage or fencing.	To minimise erosion by preventing unauthorised ground disturbance.	Prior to ground disturbance	Site inspections (December 28, 2017; 3 May 2017). KAI advice (December 28, 2017) indicates that additional clearing within Lot 13 occurred within boundaries established and cleared within previous audit periods.	Completed	Clearing of farm lot 13 was completed during this audit period. External boundaries were cleared in a previous audit period. Post-construction clearing management is discussed under other audit items (including EMP 7, EMP 8).	NR	Construction not yet commenced.
EMP 7.	Stage clearing of vegetation so that areas are cleared only as required.	To reduce the potential for erosion by minimising the area of ground surface exposed at any one time, to allow native animals the chance to move on.	During construction of shared infrastructure	Refer to previous audit – see 2017.938.M4.3a (Strategen, 2017). Lot 13 clearing completed in 2017 season. Cleared lot (with retained area) observed during December 2017 site inspection.	Completed	Item assessed as completed in a previous audit period (as does not relate to clearing of farm lots).	NR	Construction not yet commenced.
EMP 8.	Restrict movement of construction machinery and equipment to designated tracks and roads.	To prevent unauthorised ground disturbance.	During construction of shared infrastructure	Refer to previous audit – see 2017.938.M4.3a (Strategen, 2017).	Completed	Item assessed as completed in a previous audit period.	NR	Construction not yet commenced.

EMP 9.	Maintain records of topsoil stockpiles that include the location of stockpile and location of where topsoil was removed from.	To ensure topsoil is utilised in the most appropriate locations.	During construction of shared infrastructure	Refer to previous audit – see 2017.938.M4.3a (Strategen, 2017).	Completed	Item assessed as completed in a previous audit period.	NR	Construction not yet commenced.
EMP 10.	Remove topsoil from: <ul style="list-style-type: none"> all areas to be excavated all areas where spoil from excavation is to be stored. 	To provide a natural source of seed, organic matter and microorganisms for areas to be rehabilitated.	During construction of shared infrastructure	Refer to previous audit – see 2017.938.M4.3a (Strategen, 2017).	Completed	Item assessed as completed in a previous audit period.	NR	Construction not yet commenced.
EMP 11.	Stockpile cleared topsoil and subsoil separately, away from irrigation channels, for later use in rehabilitation in accordance with the Rehabilitation Management Sub-plan	To provide a natural source of seed, organic matter and microorganisms for areas to be rehabilitated.	During construction of shared infrastructure	Refer to previous audit – see 2017.938.M4.3a (Strategen, 2017).	Completed	Item assessed as completed in a previous audit period.	NR	Construction not yet commenced.
EMP 12.	Install topsoil containment measures such as sediment fencing around stockpiles.	To reduce potential for erosion of topsoil stockpiles.	During construction of shared infrastructure	Refer to previous audit – see 2017.938.M4.3a (Strategen, 2017).	Completed	Item assessed as completed in a previous audit period.	NR	Construction not yet commenced.
EMP 13.	Install signage to prevent unauthorised access to the buffer in accordance with the Buffer Management Sub-plan.	To prevent damage to the buffer from unauthorised access.	Prior to ground disturbance	Refer to previous audit – see 2017.938.M4.3a (Strategen, 2017).	Completed	Item assessed as completed in a previous audit period.	NR	Construction not yet commenced.
EMP 14.	Rehabilitate areas disturbed as a result of construction that are no longer required post-construction in accordance with the Rehabilitation Management Sub-plan.	To maximise the potential for successful rehabilitation.	As specified in the Rehabilitation Management Sub-plan	Refer to previous audit – see 2017.938.M4.3a (Strategen, 2017).	Completed	Item assessed as completed in a previous audit period. Refer to Rehabilitation audit tables regarding rehabilitation monitoring for monitoring and assessment of rehabilitation success.	NR	Construction not yet commenced.

EMP Compliance Table 2 - Soil monitoring regime

Item	Activity and location	Frequency	Target	Corrective action	Evidence	Weaber Plain		Knox Creek Plain	
						Status	Comment	Status	Comment
EMP 15.	Soil erosion within 50 m of construction activities	Weekly during construction of shared infrastructure	No soil erosion occurring as a result of construction activities.	<ol style="list-style-type: none"> 1. Investigate cause of erosion. 2. Investigate ways to minimise erosion and increase landform stability. 3. Implement remedy. 4. Monitor success of remedy. 	Refer to previous audit – see 2017.938.M4.3a (Strategen, 2017).	Completed	Item assessed as completed in a previous audit period.	NR	Construction not yet commenced.
EMP 16.	Management of top soil stockpiles.	Weekly during construction of shared infrastructure	Topsoil stockpiles are being managed appropriately, including no indication of erosion present.	<ol style="list-style-type: none"> 1. Investigate cause of erosion. 2. Investigate ways to minimise erosion and increase landform stability. 3. Implement remedy. 4. Monitor success of remedy. 	Refer to previous audit – see 2017.938.M4.3a (Strategen, 2017).	Completed	Item assessed as completed in a previous audit period.	NR	Construction not yet commenced.
EMP 17.	Extent of clearing and ground disturbance along pre-defined boundaries.	Weekly during construction of shared infrastructure	No clearing or disturbance outside of pre-defined boundaries (Figure 2).	<ol style="list-style-type: none"> 1. Report as Environmental Incident and initiate Incident Procedure 	Refer to previous audit – see 2017.938.M4.3a (Strategen, 2017).	Completed	Item assessed as completed in a previous audit period.	NR	Construction not yet commenced.
EMP 18.	Soil erosion within 50 m of infrastructure (including roads, channels, sediment basins and hillside drains).	As required after construction, e.g. after significant rainfall events.	Landform is safe and stable with no soil erosion occurring as a result of runoff from infrastructure.	<ol style="list-style-type: none"> 1. Investigate cause. 2. Identify ways reduce erosion produced as a result of infrastructure such as reducing runoff velocity, diverting runoff and application of hydromulch to areas identified as susceptible to erosion from runoff. 3. Implement remedy. 4. Monitor success of remedy. 	<p>Site inspections (3 May 2017 and 28 December 2017).</p> <p>2017.EMP18a 2017.EMP18b</p>	Conformant	<p>Site inspection photographs included in evidence.</p> <p>Erosion due to higher than average wet season (approximately 1700mm received on site).</p>	NR	Construction not yet commenced.
EMP 19.	Surface and subsoil electrical conductivity within the project area, with a specific	Twelve monthly, commencing prior to clearing and at the end of each dry	Salinity levels do not exceed 400 mS/m in surface or subsurface soils.	<ol style="list-style-type: none"> 1. Map the distribution of soil with salinity exceeding target levels. 	2017.EMP19a CSBP audit soils analysis request dated 29 December 2017	Conformant	The results verify that salinity levels were measured in all lots currently being irrigated (Lot 3, 5, 9,14, 17 and 18) and no	NR	Construction not yet commenced.

	<p>focus on areas with Aquitaine clay soils, including:</p> <ul style="list-style-type: none"> at least one sample from each lot a representative spread of sites throughout the Buffer Area. 	season during operation of irrigation infrastructure		<ol style="list-style-type: none"> Investigate cause (which could include determining if salinity is due to a rise in the groundwater or whether the soil chemical status is deteriorating as a result of insufficient irrigation). Verify the adequacy of the estimated leaching rate (approximately 100 mm/a) in controlling sodicity in accordance with the Groundwater Management Sub-plan. Identify whether remedial action is required, such as installation of field drains in accordance with the Groundwater Management Sub-plan. Implement remedial action on a trial basis in areas identified from mapping. Monitor success of remedy, increasing the frequency of soil monitoring if salinity exceeds target levels. 	2017.EMP19b CSBP audit soils analysis report		samples exceeded the trigger of 400 mS/m.		
EMP 20.	<p>Surface and subsoil ESP and pH within the project area, with a specific focus on areas with Aquitaine clay soils, including:</p> <ul style="list-style-type: none"> at least one sample from each lot 	Twelve monthly, commencing prior to clearing and at the end of each dry season during operation of irrigation infrastructure	Sodicity levels five years after commencement of irrigation do not exceed an ESP of 6 in surface soils or 15 in subsurface soils.	<ol style="list-style-type: none"> Map the distribution of soil with sodicity exceeding target levels. Investigate cause (which could include determining if changes are consistent with the anticipated initial response to land use change, or whether the soil chemical status is deteriorating as a result of insufficient irrigation). 	<p>2017.EMP19a CSBP audit soils analysis request dated 29 December 2017</p> <p>2017.EMP19b CSBP audit soils analysis report</p>	Conformant.	The results verify that sodicity levels were measured in all lots currently being irrigated (Lot 3, 5, 9, 14, 17 and 18) and no samples exceeded the triggers (note: measurement against the triggers is not yet required as irrigation has not been operational for five years).	NR	Construction not yet commenced.

	<ul style="list-style-type: none"> a representative spread of sites throughout the Buffer Area. 			<ol style="list-style-type: none"> Verify the adequacy of the estimated leaching rate (approximately 100 mm/a) in accordance with the Groundwater Management Sub-plan. Identify whether remedial action is required, such as application of gypsum or sulphur. Implement remedial action on a trial basis in areas identified by mapping. Monitor success of remedy, increasing the frequency of soil monitoring if salinity exceeds target levels. 					
--	--	--	--	---	--	--	--	--	--

EMP Compliance Table 3 - Chemicals management actions

Item	Action	Purpose	Timing	Evidence	Weaber Plain		Knox Creek Plain	
					Status	Comment	Status	Comment
EMP 21.	<p>Prospective land managers will be advised of the requirement to comply with procedures for chemical application, and chemical management legislation including:</p> <ul style="list-style-type: none"> Agricultural and Veterinary Chemicals Code Act 1994 (Cwth) and associated acts and regulations Health (Pesticides) Regulations 2011 Aerial Spraying Control Act 1966 (WA) Agricultural Produce (Chemical Residues) Act 1983 (WA) Poisons Act 1964 (WA) 	To reduce the potential for contamination of the environment by farm chemicals by ensuring that farm owners/managers are aware of the specified procedures for chemical application in the project area and informed of their rights and responsibilities under the relevant Acts and Regulations.	At sub-lease of lots.	Refer to previous audit – see 2017.938.M4.3a (Strategen, 2017).	Completed	Item assessed as completed in a previous audit period.	NR	Construction not yet commenced

	<ul style="list-style-type: none"> • Veterinary Preparations and Animal Feeding Stuffs Act 1976 (WA) • Agriculture and Related Resources (Spraying Restriction) Regulations 1979. 							
EMP 22.	Induct personnel on safe use of chemicals and hydrocarbon management measures, including hydrocarbon handling, disposal and spill response procedures.	To reduce the risk of contamination of the environment.	Within one week of personnel commencing work on site	Staff and contractor induction sighted 2017.EMP2 – induction register. KAI advice (28 December 2017).	Conformant	Formal inductions are undertaken by KAI for its farm workforce that includes management of hydrocarbons and chemicals. The induction package contains information pertaining to the safe use of chemical and hydrocarbon management measures, including handling, disposal and spill response.	NR	Construction not yet commenced
EMP 23.	Ensure storage of farm chemicals complies with relevant Australian and Western Australian Standards, including AS 2507-1998 “ <i>The storage and handling of agricultural and veterinary chemicals</i> ” and Department of Water <i>Toxic and Hazardous Substances – Storage and Use WQPN No. 65</i> .	To prevent potential contamination of the environment and harm to individuals by ensuring appropriate storage and handling of chemicals.	Ongoing from commencement of ground disturbance	Site inspection (28 December 2017). KAI advice (28 December 2017).	Conformant	KAI advised that farm chemicals stored on site.	NR	Construction not yet commenced
EMP 24.	All hydrocarbons will be stored in accordance with the following: <ul style="list-style-type: none"> • Dangerous Goods Safety (Storage and Handling of Non-explosives) Regulations 2007 (WA) • Australian Standard AS 1940-2004: The Storage and Handling of Flammable and Combustible Liquids. 	To minimise the potential for hydrocarbon contamination of the environment.	Ongoing from commencement of ground disturbance	Site inspections (May 3 2017 and December 28 2017).	Conformant	Hydrocarbons (diesel fuel) was stored in self-bunded tanks or self-bunded trailers. Bunded oil holding facilities were observed at the Lot 14 and Lot 3 tailwater pump sites. A mobile fuel truck servicing vehicles was observed on site during the May visit. <i>Minor non-conformances observed by previous auditors were not observed at the May 2017 and December 2017 site inspections.</i>	NR	Construction not yet commenced
EMP 25.	Generators will be located on bunded platforms to contain any fuel leaks.	To minimise the potential for spills and leaks to contaminate the environment.	Ongoing from commencement of ground disturbance	Bunded generators observed in site inspections (May 3 2017 and December 28 2017).	Conformant	As noted in previous audits, generators on the Goomig site are located at the Lot 3 shed. These generators are self-bunded.	NR	Construction not yet commenced

EMP 26.	Maintain appropriate spill response equipment and Material Safety Data Sheet (MSDS) information in all hydrocarbon storage and re-fuelling areas and maintenance areas.	To minimise the potential for spills and leaks to contaminate the environment.	Ongoing from commencement of ground disturbance	KAI advice (28 December 2017)	Conformant	KAI advised that MSDS data is held in site compounds and fueling and storage areas, as observed in previous audits. Spill response equipment was observed at the Lot 3 compound during the site inspection (28 December 2017).	NR	Construction not yet commenced
EMP 27.	Persons designated as responsible for the storage and handling of fertiliser on farms be provided with appropriate training and instruction.	To prevent potential contamination of the environment by ensuring appropriate storage and handling of fertilisers.	Ongoing from commencement of ground disturbance	KAI advice (28 December 2017)	Conformant	KAI advised that fertiliser is sourced on an as-needs basis by personnel with appropriate training and instruction.	NR	Construction not yet commenced
EMP 28.	Transport dangerous goods in accordance with the Dangerous Goods Safety (Storage and Handling of Non-explosives) Regulations 2007 (WA).	To ensure dangerous goods are stored appropriately during transport (e.g. on absorbent material, provision of spill kit, well-ventilated, appropriate documentation and provision of personnel protection equipment for safe handling).	Ongoing from commencement of ground disturbance	N/A	Unable to assess.	Dangerous Goods Safety (Storage and Handling of Non-explosives) Regulations 2007 (WA) is beyond the scope of this audit.	NR	Construction not yet commenced
EMP 29.	Notify the DPW AND/OR DER of hydrocarbon spills in accordance with the Environmental Protection (Unauthorised Discharges) Regulations 2004.	To ensure potential spills are appropriately assessed and remediated according to the Environmental Protection (Unauthorised Discharges) Regulations 2004 as hydrocarbons are a Schedule 1 Material in these Regulations.	In accordance with Incident Response Procedure	Site inspections (3 May 2017 and 28 December 2017).	Conformant	KAI advised that no significant spills (warranting Department of Water and Environmental Regulation - DWER) reporting have occurred, and none were detected during site inspections.	NR	Construction not yet commenced
EMP 30.	Maintain registers of all chemicals applied on-site as required under applicable chemical usage legislation.	To provide data for review if monitoring indicates unacceptable impacts to the environment.	Ongoing from commencement of ground disturbance	2017.EMP30 KAI Goomig Chemical Usage Report. Full application report observed by auditor.	Conformant	Chemical spraying logs are retained within KAI's farm management software system.	NR	Construction not yet commenced
EMP 31.	Restrict chemical and fertiliser use when the tailwater retention capacity is unavailable	To prevent the transporting of nutrients and chemicals downstream	Ongoing from commencement of ground disturbance	Site inspections (3 May 2017 and 28 December 2017).	Conformant	KAI advised that there have been no tailwater overflow to date as the tailwater retention capacity has not been reached.	NR	Construction not yet commenced

EMP 32.	Commercial pesticide and herbicide spraying will be undertaken only by operators with the appropriate level of ChemCert accreditation.	To minimise spray drift.	Ongoing from commencement of ground disturbance	2017.EMP32 2017.EMP36	Conformant	KAI advised that pesticide and herbicide spraying is undertaken only by operators with the appropriate level of ChemCert accreditation. Aerial spraying is undertaken by Lone Eagle (Lance Conley) who holds certification from DPIRD.	NR	Construction not yet commenced
EMP 33.	Ensure agricultural chemicals are not directly applied to dedicated on-farm access tracks.	To prevent off-site transportation of chemicals in dust lift-off from access tracks.	Ongoing from commencement of ground disturbance	Site inspections (3 May 2017 and 28 December 2017).	Conformant	KAI advised that chemicals are not directly applied to farm tracks. No evidence observed by the auditors of application of chemicals on dedicated on-farm tracks.	NR	Construction not yet commenced
EMP 34.	Chemicals will be applied in accordance with the product label.	To prevent potential contamination of the environment by ensuring appropriate application of chemicals.	Ongoing from commencement of ground disturbance	Auditor observed application rates in KAI farm management software database. See also 2017.EMP30.	Conformant	Farm management software spraying logs indicate chemicals have been applied at rates within the application rate range outlined on the product labels.	NR	Construction not yet commenced
EMP 35.	Maintain a register of all aerial spraying operations.	To minimise potential for environmental impacts by ensuring aerial spraying is carried out in an acceptable manner.	Ongoing from commencement of ground disturbance	2017.EMP30	Conformant	Refer to EMP 30. KAI maintains records of any aerial spraying undertaken, in its farm management software.	NR	Construction not yet commenced
EMP 36.	Use accredited operators (e.g. by operators and pilots accredited under the Aerial Agricultural Association of Australia (AAAA) "Spraysafe" program)	To minimise potential for environmental impacts by ensuring aerial spraying is carried out in an acceptable manner, to determine extent of required spray fall-out monitoring.	Ongoing from commencement of ground disturbance	2017.EMP36a 2017.EMP36b 2017.EMP36c 2017.EMP36d	Conformant	Pilot accreditation certificates for aerial spraying contractors supplied.	NR	Construction not yet commenced
EMP 37.	Notify neighbours within: <ul style="list-style-type: none"> • 1500 m of an area to be sprayed with ultra-low volume • 750 m of an area to be sprayed with emulsifiable concentrate by air. 	To minimise the risk of adverse health effects caused by spray fall-out.	Ongoing from commencement of ground disturbance	Site inspections (3 May 2017 and 28 December 2017).	Conformant	No neighbours within 1500 m of areas that have been sprayed.	NR	Construction not yet commenced

	Consideration should be given to provide a range of dates in case conditions are not conducive to safely apply the pesticide and to minimise spray drift.							
EMP 38.	Design chemical washdown facilities in accordance with Department of Water, Water Quality Protection Notes on: <ul style="list-style-type: none"> Mechanical Equipment Washdown (WQPN No. 68) Chemical Blending (WQPN No. 7). 	To minimise potential for environmental impacts by ensuring appropriate siting (location), design and construction of chemical wash down facilities.	Prior to commencement of planting of crops	KAI advice (28 December 2017).	Conformant	No washdown facilities are currently located on farms within the Project area. KAI has previously provided a procedure for equipment washdown, which is currently only undertaken at a compound outside of the Proposal area. No washdown facilities were inspected during the audit as the compound is located outside the Project area.	NR	Construction not yet commenced
EMP 39.	All chemical blending and decanting will be undertaken within a fully-contained area.	To minimise potential for environmental impacts by ensuring chemical spills are contained.	Ongoing from commencement of irrigation	KAI advice (28 December 2017).	Conformant	KAI advised that chemical blending and decanting is currently undertaken at the KAI compound outside of the Proposal area.	NR	Construction not yet commenced
EMP 40.	Develop emergency response procedures in accordance with Department of Water, Water Quality Protection Note <i>Contaminant spills – emergency response</i> (WQPN No. 10).	For determining the appropriate level of response according to the degree (or classification) of the spill.	Prior to commencement of planting of crops	2017.EMP40	Conformant	Previous audits have indicated KAI's use of WQPN No 10. Updated KAI emergency response procedure documentation was provided (2017.EMP40) which does not explicitly reference WQPN No. 10) but meets the intent.	NR	Construction not yet commenced
EMP 41.	Dispose empty chemical containers in accordance with the AgSafe guidelines for disposal of containers.	To minimise potential for environmental impacts by minimising chemical residue in disposed chemical containers.	Ongoing from commencement of irrigation	Site inspections (3 May 2017 and 28 December 2017).	Conformant	Empty chemical containers are stored off site at the KAI compound and then routinely collected through a "drum muster" by Shire of Wyndham East Kimberley.	NR	Construction not yet commenced

EMP Compliance Table 4 - Chemical use monitoring table

Item	Activity and location	Frequency	Target	Corrective action	Evidence	Weaber Plain		Knox Creek Plain	
						Status	Comment	Status	Comment
EMP 42.	Inspection of permanent hydrocarbon	Three monthly	All hydrocarbon storage devices comply with	Non-compliant hydrocarbon storage devices to be replaced/repairs as appropriate.	Site inspections (3 May 2017 and 28 December 2017). No spillages or leaks observed.	Conformant	Permanent hydrocarbon storage facilities are present on Lot 3, Lot 9 and Lot 14. It was reported that self-banded storage devices are inspected by KAI (at a greater frequency than 3-	NR	Construction not yet commenced.

	storage facilities.		appropriate standards and/or regulations		KAI advice 28 December 2017.		monthly), although no records are maintained of inspections.		
EMP 43.	Survey vegetation in the Buffer Area for symptoms of damage typical of chemicals being used in the ORIA.	Annually	No detectable impact on the buffer	<ol style="list-style-type: none"> 1. Investigate the cause. 2. Investigation opportunities to prevent re-occurrences. 3. Inform farm owners of outcomes of the survey. 4. In the event of chemical discharge contrary to Environmental Protection (Unauthorised Discharges) Regulations 2004, report to DWER 	Site inspections (3 May 2017 and 28 December 2017).	Conformant	Refer to EMP 52, EMP 54 and EMP 76. Buffer vegetation damage due to spray drift was not observed during site inspections.	NR	Construction not yet commenced.
EMP 44.	Inspect storage facilities and mixing and washdown areas, and surrounds for chemical spills.	Daily during spray operations Monthly at other times	No chemical spills	<ol style="list-style-type: none"> 1. Implement emergency response. 2. Classify appropriate response. 3. Notify authorities if High or Moderate incident impact classifications. 4. Review Emergency Response Plan (for High and Moderate incident impact classes). 5. Prepare and implement follow-up environmental monitoring (in consultation with DWER as required). 	Site inspections (3 May 2017 and 28 December 2017). KAI advice.	Conformant	Chemicals not mixed or stored within the Proposal area.	NR	Construction not yet commenced.

EMP Compliance Table 5 - Dust and particulate management actions

Item	Action	Purpose	Timing	Evidence	Weaber Plain		Knox Creek Plain	
					Status	Comment	Status	Comment
EMP 45.	Burning of vegetation will occur only at times when prevailing winds will direct smoke and ash away from residential areas	To minimise the potential for smoke and ash to affect nearby residents	Ongoing from commencement of ground disturbance	2017.EMP45a 2017.EMP45b 2017.EMP45c 2017.EMP45d 2017.EMP45e	Conformant	There are nearby residential areas. KAI burns in accordance with permits issued by SWEK. <u>2015 recommendation from previous auditors retained</u> : potential to delete this action should revision of EMP occur.	NR	Construction not yet commenced.

EMP 46.	Provide prospective farm owners/leasees documentation on practices to prevent dust emissions	To reduce the potential for dust generation by minimising ground disturbance	At time of sub-lease	2017.938.M4.3a (Strategen, 2017).	Completed	Item assessed as completed in a previous audit period.	NR	Sub-lease yet to occur.
EMP 47.	Proponent shall notify the nearby residences of construction activities and the predicted nature and duration of proposed burning activities	To reduce the potential for community impact by ensuring effective communication	As required	Site inspection (3 May 2017 and 28 December 2017).	Conformant	No nearby residences. <u>2015 recommendation from previous auditors retained</u> : Refer to EMP 45 - potential to delete this action should revision of EMP occur.	NR	Construction not yet commenced.
EMP 48.	Cleared construction surfaces and stockpiles will be watered and/or stabilised where practicable to reduce dust lift-off	To reduce the potential for environmental and community impacts by reducing the potential for dust generation	During construction of shared infrastructure	2017.938.M4.3a (Strategen, 2017).	Completed	Item assessed as completed in a previous audit period.	NR	Construction not yet commenced.
EMP 49.	Speed limits will be sign-posted and implemented in the project area and will reflect local conditions	To reduce the potential for environmental impacts by reducing the potential for dust generation	Ongoing from commencement of ground disturbance	2017.938.M4.3a (Strategen, 2017).	Completed	Item assessed as completed in a previous audit period.	NR	Construction not yet commenced.

EMP Compliance Table 6 - Dust and particulate monitoring regime

Item	Activity and location	Frequency	Target	Corrective action	Evidence	Weaber Plain		Knox Creek Plain	
						Status	Comment	Status	Comment
EMP 50.	Visual monitoring	Daily during construction of shared infrastructure	No off site impact on amenity	1. Investigate cause. 2. Implement additional dust control measures, as appropriate.	2017.938.M4.3a (Strategen, 2017).	Completed	Item assessed as completed in a previous audit period.	NR	Construction not yet commenced.
EMP 51.	Monitor community issues associated with dust/burning	During construction of shared infrastructure	No public complaints relating to dust generated by the project	Public complaints will be recorded and responded to in accordance with the Community Issues Management Sub-plan.	2017.938.M4.3a (Strategen, 2017).	Completed	Item assessed as completed in a previous audit period.	NR	Construction not yet commenced.

EMP Compliance Table 7 - Weed, plant pathogen and pest animal management actions

Item	Action	Purpose	Timing	Evidence	Weaber Plain		Knox Creek Plain	
					Status	Comment	Status	Comment
EMP 52.	Conduct a weed survey in the common user infrastructure areas and adjoining areas (up to 100 m) within the Weaber Plain Buffer Area to establish baseline information (i.e. weed species and density/cover/distribution of weeds) and identify Priority Areas for management and control. Priority Areas will be defined by: <ul style="list-style-type: none"> weed infested areas (e.g. monocultures of neem trees, weed density/cover greater than 50%) areas that have declared noxious weed species and Weeds of National Significance (WONS) areas declared as local priority in consultation with DPW AND/OR DER and DAFWA 	To provide data to inform management.	Prior to ground disturbance	2017.938.M4.3a (Strategen, 2017).	Completed	Item assessed as completed in a previous audit period.	NA	Item amended in Knox EMP (refer to KEMP 52).
KEMP 52	<i>Conduct a weed survey to establish baseline information (i.e. weed species and density/cover/distribution of weeds) and identify Priority Areas for management and control. Priority Areas will be defined by:</i> <ul style="list-style-type: none"> <i>weed infested areas (e.g. monocultures of neem trees, weed density/cover greater than 50%)</i> <i>areas that have declared noxious weed species and Weeds of National Significance (WONS)</i> 	<i>To provide data to inform management.</i>	<i>Prior to ground disturbance</i>	2017.938.M4.3a (Strategen, 2017).	NA	NA	Completed	Item assessed as completed in a previous audit period.

	<ul style="list-style-type: none"> • areas declared as local priority in consultation with DPaW, DAFWA and Ord Land and Water Inc. 							
EMP 53.	Establish permanent weed survey transects within 100 m into the Weaber Plain/Knox Creek Plain Buffer Area.	To ensure repeatability of ongoing weed monitoring.	Prior to ground disturbance	2017.938.M4.3a (Strategen, 2017).	Completed	The 2016 auditors (Strategen) considered this action to be complete.	Completed	The 2016 auditors (Strategen) considered this action to be complete.
EMP 54.	<p>Conduct weed surveys along permanent weed survey transects (and opportunistically between permanent weed survey transects) to establish baseline information (i.e. weed species and density/cover/distribution of weeds) and identify and update Priority Areas for management and control. Priority Areas will be defined by:</p> <ul style="list-style-type: none"> • weed infested areas (e.g. monocultures of neem trees, weed density/cover greater than 50%) • areas that have declared noxious weed species and Weeds of National Significance (WONS) • areas declared as local priority in consultation with DPW AND/OR DER, DAFWA and Ord Land and Water Inc. 	To provide data to inform management.	Annually, from commencement of ground disturbance	<p>Photographic survey evidence samples provided – 2017.EMP54a and 2017.EMP54b (with weed – Parkinsonia – present). 2017.EMP54c, 2017.EMP54d, 2017.EMP54e – no weed present. Location near to 2017.EMP54a and 2017.EMP54b.</p>	PNC	<p>This action remains a technical PNC as weed inspections are now undertaken in areas adjacent to farming and monitoring tracks and around bores, where impacts from human activity would be most noticeable, differs from the prescribed approach. Refer to Strategen (2017) previous audit for further discussion. The auditor supports the review the action (and all other related actions, e.g. EMP 55, EMP 76) including confirmation of the relevance of the original transects as well as the third dot point regarding consultation.</p>	NR	Construction not yet commenced.
EMP 55.	<p>Update the extent of Priority Areas which will be defined by:</p> <ul style="list-style-type: none"> • weed infested areas (e.g. monocultures of neem trees, weed density/cover greater than 50%) • areas that have declared noxious weed species and Weeds of National Significance (WONS) • areas declared as local priority in consultation with DPW AND/OR DER, DAFWA and Ord Land and Water Inc. 	To provide data to inform management.	Annually, from commencement of ground disturbance	<p>KAI advice (3 May 2017 and 28 December 2017) that weeds identified during regular surveys are subsequently treated. Success of treatment noted in following years' surveys. Refer to</p>	Conformant	Refer to EMP 54.	NR	Construction not yet commenced.

				2017.EMP54a and 2017.EMP54b.				
EMP 56.	Develop and undertake a weed control program in Priority Areas with the exception of roads.	To ensure effective control of weeds by the appropriate parties.	Prior to ground disturbance	KAI advice (3 May 2017 and 28 December 2017) and site inspections by the auditor that weeds identified during regular surveys are subsequently treated.	Conformant	Refer to EMP 54. KAI is implementing an ongoing weed control (spraying) program targeting <i>Parkinsonia aculeate</i> . KAI advised the success of treatment is noted in following years' inspections and photographic surveys. Follow-up treatments occur if required. <i>Example location is buffer on Minjiljirrga Lane, adjacent to Lot 3.</i>	NR	Construction not yet commenced.
EMP 57.	Implement an induction program for personnel which contains information on: <ul style="list-style-type: none"> hygiene procedures for all vehicles, machinery and equipment upon entering and leaving the Weaber Plain Development Area and/or Priority Areas specific soil management requirements in Priority Areas requirement to remain within designated clearing areas. 	To reduce the risk of construction activities introducing and/or spreading weeds and plant pathogens by ensuring construction personnel are aware of appropriate management measures and requirements .	Within one week of personnel commencing work on-site	2017.EMP2	Completed	This action has been interpreted to relate to construction of shared infrastructure only (based on the purpose) and as such has been assessed as completed for the Weaber Plain phase of the Project.	NR	Construction not yet commenced.
EMP 58.	Prepare guidelines for prospective farmers/lessees that contains information on: <ul style="list-style-type: none"> vehicle hygiene measures (e.g. issues of using machinery from southern WA or interstate) identification, control and reporting of weeds (e.g. weed control in tail water ditches, use of fire) 	To reduce the risk of agricultural activities introducing and/or spreading weeds, plant	At time of sub-lease	2017.938.M4.3a (Strategen, 2017)	Completed	Item assessed as completed in a previous audit period.	NR	Construction not yet commenced.

	<ul style="list-style-type: none"> • identification and reporting of pest animals, declared noxious weed species and signs of plant pathogens • obligations under the Agricultural and Related Resources Protection Act 1976 (WA) (including the requirement for the occupier of any private land to control declared plants and declared animals on and in relation to that land) • selection of pet animals (e.g. discourage cat ownership) • selection of crops (e.g. no declared noxious weed species) • irrigation and drainage of land (i.e. no water from farming allotments directed into the Weaber Plain Buffer Area). 	pathogens and pest animals by ensuring farm owners/managers are aware of appropriate management measures and requirements .						
EMP 59.	<p>Develop and supply an information package to prospective farm owners/lessees/managers within the project area that contains:</p> <ul style="list-style-type: none"> • a weed identification key for all species known to occur in the area (key to be developed in consultation with DPW AND/OR DER, DAFWA and Ord Land and Water) • possible control techniques (information on controlling declared noxious weed species can be obtained from DAFWA [2003]) • general soil management and hygiene requirements for farms • reporting requirements. 	To reduce the risk of agricultural activities introducing and/or spreading weeds, plant pathogens and pest animals by ensuring farm owners/managers are aware of appropriate management measures and requirements .	At time of sub-lease	2017.938.M4.3a (Strategen, 2017)	Completed	Item assessed as completed in a previous audit period.	NA	Item not included in Knox EMP.
EMP 60.	Topsoil from areas with known declared weed species will managed accordance with DAFWA requirements.	To reduce the risk of declared weed species being introduced into/ spread throughout	During clearing of farm lots	Site inspections (3 May 2017 and 28 December 2017). KAI advice (28 December 2017).	Conformant	KAI advised that there are no DAFWA requirements for topsoil from areas with known declared weed species. KAI advised that topsoil is not being used and remains in situ. Any weeds present are burnt	NA	Item not included in Knox EMP.

		the Buffer Area.				or controlled using Round-up during clearing.		
EMP 61.	Aquatic weed control shall be undertaken consistent with industry standards	To reduce the risk of aquatic weeds being introduced into/ spread throughout natural watercourses and wetlands near the project area.	Ongoing from commencement of irrigation	KAI advice (28 December 2017)	Unable to assess.	Aquatic weed control within the main M2 and M2S channels using acrolein injections are undertaken by agents for Water Corporation	NR	Irrigation not yet commenced.
EMP 62.	Restrict movement of vehicles and machinery to the limits of the areas to be cleared (thus not affecting the Weaber Plain/Knox Creek Plain Buffer Area) by delineating the Weaber Plain/Knox Creek Plain Buffer Area (e.g. fence, flags and signs) prior to clearing.	To reduce the risk of weeds being introduced into/ spread throughout the Buffer Area by limiting access.	Ongoing from commencement of ground disturbance	2017.EMP62 Site inspections 3 May 2017 and 28 December 2017.	Conformant	Approximately 3.35 ha of vegetation within the Buffer Area was accidentally cleared in April 2016, reported as an incident and included in the 2016 audit (Strategen 2017). Evidence item 2017.EMP62 indicates rehabilitation progress	NR	Construction not yet commenced.
EMP 63.	Access into the Weaber Plain/Knox Creek Plain Buffer Area will be via designated access tracks only.	To reduce the risk of weeds being introduced into/ spread throughout the Buffer Area by limiting access.	Ongoing from commencement of ground disturbance	Site inspections 3 May 2017 and 28 December 2017.	Conformant	Previous KAI advise to auditors that access tracks through the Buffer Area are not signposted with vehicle speeds, hygiene protocols etc. to minimise the risk of unauthorised access (i.e. signage would only draw attention to these access tracks and increase likelihood of unauthorised access) remains.	NR	Construction not yet commenced.
EMP 64.	Establish clean down site/s at access points to the Weaber Plain Buffer Area, rehabilitation areas (outside of the Buffer Area) and Priority Areas. The clean down site/s will be designed to ensure soil is collected and	To prevent the introduction/ spread of	During construction of shared	2017.938.M4.3a (Strategen, 2017)	Completed	Item assessed as completed in a previous audit period.	NA	Item not included in Knox EMP

	disposed of in a manner that does not allow the introduction or spread of weeds or plant pathogens. At each permanent clean down site there will be a sign describing the hygiene procedure/s required to be implemented.	weeds and plant pathogens in the Weaber Plain Buffer Area, rehabilitation areas and Priority Areas.	infrastructure					
EMP 65.	Clean down all machinery entering the Weaber Plain Development Area to remove vegetative matter, seeds and soil.	To prevent the introduction/spread of weeds and plant pathogens in the project area.	During construction of shared infrastructure	2017.938.M4.3a (Strategen, 2017)	Completed	Item assessed as completed in a previous audit period.	NA	Item amended in Knox EMP (refer to KEMP 65).
KEMP 65	<i>Clean down all large machinery entering the Knox Creek Plain Development Area for the first time, to remove vegetative matter, seeds and soil. Each vehicle will be given a 'hygiene sticker' indicating that they have been checked and assessed for hygiene performance.</i>	<i>To prevent the introduction/spread of weeds and plant pathogens in the project area.</i>	<i>Ongoing from commencement of ground disturbance</i>	NA	NA	NA	NR	Construction not yet commenced.
EMP 66.	Undertake a vehicle hygiene check for all vehicles/machinery entering the construction site for the first time. Each vehicle will be given a 'hygiene sticker' indicating that they have been checked and assessed for hygiene performance.	To prevent the introduction/spread of weeds and plant pathogens in the project area.	During construction of shared infrastructure	2017.938.M4.3a (Strategen, 2017)	Completed	Item assessed as completed in a previous audit period.	NA	Item not included in Knox EMP.
EMP 67.	Record in a hygiene log book (located at all clean-down sites) the: <ul style="list-style-type: none"> time and date of clean down of machinery/vehicle/equipment method of cleaning machinery and vehicles 	To provide hygiene data to inform management.	During construction of shared infrastructure	2017.938.M4.3a (Strategen, 2017)	Completed	Item assessed as completed in a previous audit period.	NA	Item not included in Knox EMP.

	<ul style="list-style-type: none"> signature of the driver (and vehicle hygiene inspector if first inspection). 							
EMP 68.	Certify all soil and fill material sourced from outside the project area as disease and weed free in accordance with DAFWA and DPW AND/OR DER requirements. If certificates cannot be obtained a risk assessment will be carried out on the soil material and only material that is evaluated as a very low risk of having environmental or declared noxious weeds or plant pathogens will be permitted for use.	To prevent the introduction/ spread of weeds and plant pathogens in the project area.	Ongoing from commencement of ground disturbance	Site inspections (3 May 2017 and 28 December 2017).	Conformant	No external fill used by KAI during this audit period.	NR	Construction not yet commenced.
EMP 69.	Inspect borrow pits and borrow pit access tracks prior to disturbance to ensure weed species are not present. If any weeds are present, they will be cleared and controlled (e.g. physical removal, spray, disposal off-site, burning) from the affected areas prior to commencement of borrow extraction.	To prevent the introduction/ spread of weeds and plant pathogens in the project area.	Prior to ground disturbance	2017.938.M4.3a (Strategen, 2017)	Completed	Item assessed as completed in a previous audit period.	NR	Construction not yet commenced.
EMP 70.	Rehabilitate disturbed areas that are not to be utilised post-construction in accordance with the Rehabilitation Management Sub-plan.	To re-establish native vegetation and reduce and control weed cover.	During construction of shared infrastructure / <i>During construction</i>	2017.938.M4.3a (Strategen, 2017)	Completed	Item assessed as completed in a previous audit period.	NR	Construction not yet commenced.
EMP 71.	Ensure that waste that may attract pest animals is properly disposed of as far as is practicable.	To prevent the encouragement of pest animals by ensuring effective waste disposal.	Ongoing from commencement of ground disturbance	Site inspections (3 May 2017 and 28 December 2017).	Conformant	No pest animal-attracting waste was observed during site inspections.	NR	Construction not yet commenced.
EMP 72.	Undertake pest eradication program within Buffer Area.	To reduce the risk of pest animals becoming established	Ongoing from commencement of ground disturbance	Site inspections (3 May 2017 and 28 December 2017).	Conformant	No pest animals (eg cats) observed in buffer during inspections. Minimal evidence of cattle presence, indicating sustained	NR	Construction not yet commenced.

		within the Buffer Area.				reduction in cattle numbers in buffer.		
EMP 73.	Install signs at the entry point to any access tracks in the Weaber Plain/Knox Creek Plain Buffer Area to discourage people from entering the area.	To reduce the risk of feral cats and dogs becoming established in the Buffer Area.	Prior to commencement of planting of crops	Site inspections (3 May 2017 and 28 December 2017).	Completed	Refer to EMP 63. The timing of this action – prior to commencement of planting – indicates this action was completed for Weaber Plain in a previous audit period.	NR	Construction not yet commenced.
EMP 74.	Ensure stock are removed from the Buffer Area.	To remove stock as an ongoing source of land degradation and a vector for introducing and spreading weeds throughout the Buffer Area.	Ongoing from commencement of ground disturbance	Site inspections (3 May 2017 and 28 December 2017) indicates substantially reduced stock numbers.	Conformant	Refer to EMP 72. Very few cattle tracks and no cattle observed during site inspections.	NR	Construction not yet commenced.

EMP Compliance Table 8 -Weed, plant pathogen and pest animal monitoring regime

Item	Activity location	and	Frequency*	Target	Corrective action	Evidence	Weaber Plain		Knox Creek Plain	
							Status	Comment	Status	Comment
EMP 75.	Weed species found along permanent weed survey transects in the buffer		Annually	No new plant pathogens or weed species observed or recorded in the mapped area during construction. No new Priority Areas during construction.	<ol style="list-style-type: none"> 1. Map the extent of any new Priority Areas. 2. Map the distribution of the newly introduced species. 3. Identify activities that may have potentially introduced the species. 4. Plan and implement a monitoring or control treatment program. 5. Re-educate contractors/farm owners/managers of the importance of hygiene control measures. 	As per EMP54. Photographic survey evidence samples provided – 2017.EMP54a and 2017.EMP54b (with weed – Parkinsonia – present). 2017.EMP54c, 2017.EMP54d, 2017.EMP54e – no weed present. Location near to 2017.EMP54a and 2017.EMP54b.	Conformant	Refer to EMP 54.	NR	Construction not yet commenced.
EMP 76.	Density/ cover/ distribution of weed species in the permanent weed survey transects and common use infrastructure areas.		Annually	No more than a 10% statistical increase in weed species density/ cover/distribution compared to the results of initial weed survey. No new Priority Areas	<ol style="list-style-type: none"> 1. Map the extent of any new Priority Areas. 2. Map the revised extent of the specific weed species within the site. 3. Identify activities that may have potentially spread the weed species. 4. Plan and implement a weed control treatment program. 5. Apply hygiene control and education measures. 	Refer to EMP 54	PNC	As with previous audit findings, density/cover/distribution of weed species in the permanent weed survey transects is not explicitly measured. As such, the auditor has assessed this item as potentially non-conformant. However, given that the majority of common use areas are slashed (eg drains, channel banks) and that regular informal inspections occur, followed by weed treatment, the intent of this monitoring action – to	NR	Construction not yet commenced.

							ensure the minimising of weed infestations in common areas – is being incorporated into day-to-day farming activity. Previous audits recommended this action be revised.		
EMP 77.	Presence of declared weeds in farm lots.	As required	No declared weed species present.	<ol style="list-style-type: none"> 1. Notify DAFWA if required. 2. Investigate cause. 3. Undertake weed control in accordance with DAFWA requirements. 4. Monitor success of weed control. 	Site inspection (3 May 2017 and 28 December 2017)	Conformant	KAI advised <i>Parkinsonia</i> had been observed and had been subject to spraying but was being monitored further to ensure the treatment is successful.	NR	Construction not yet commenced.
EMP 78.	Feral animals (including stock) in the Weaber Plain / Knox Creek Plain Buffer Area	As required	No new pest animals or sightings of feral animals	<ol style="list-style-type: none"> 1. Investigate cause. 2. Undertake eradication program as required. 3. Undertake intervention or remediation works (e.g. reduce bins, trapping, re-education). 	Refer to EMP 72	Conformant	Refer to EMP 72.	NR	Construction not yet commenced and Buffer Area yet to be fenced.

EMP Compliance Table 9 - Surface water management actions

Item	Action	Purpose	Timing	Evidence	Weaber Plain		Knox Creek Plain	
					Status	Comment	Status	Comment
EMP 79.	Induct personnel on surface water management measures, including: <ul style="list-style-type: none"> • M2 channel may receive effluent from the Kununurra Wastewater Treatment Plant 	To reduce the potential for activities to adversely affect surface water values by ensuring construction personnel are aware of appropriate management measures.	Within one week of personnel commencing work on-site	2017.938.M4.3a (Strategen, 2017)	Completed	Item assessed as completed in a previous audit period.	NA	Item amended in Knox EMP (refer to KEMP 79).

	<ul style="list-style-type: none"> the potential risks from <i>Burkholderia pseudomallei</i>, which is found dormant in soils and the potential for its dispersion through irrigation processes. 							
KEMP 79	<i>Induct personnel on surface water management measures.</i>	<i>To reduce the potential for activities to adversely affect surface water values by ensuring construction personnel are aware of appropriate management measures.</i>	<i>Within one week of personnel commencing work on-site</i>	NA	NA	NA	NR	Construction not yet commenced.
EMP 80.	Construct levees at the perimeter of farmland adjacent to Border Creek/Knox Creek to protect them from 1 in 20 year ARI flooding.	To protect farmland, prevent sedimentation of farm soil in Border Creek or the Keep River system.	Prior to commencement of planting of crops	2017.938.M4.3a (Strategen, 2017)	Completed	Item assessed as completed in a previous audit period.	NR	Planting of crops not expected to commence until 2018 at the earliest.
EMP 81.	Locate all drains on less permeable soils to minimise seepage to groundwater where possible. Where deeper drains are required, the excavated surface of the drain will be compacted to reduce seepage.	To reduce accessions to groundwater.	Prior to commencement of planting of crops	2017.938.M4.3a (Strategen, 2017)	Completed	Item assessed as completed in a previous audit period.	NR	Planting of crops not expected to commence until 2018 at the earliest.

EMP Compliance Table 10 - Surface water monitoring regime

Item	Activity and location	Frequency	Target	Corrective action	Evidence	Weaber Plain		Knox Creek Plain	
						Status	Comment	Status	Comment
EMP 82.	Inspect areas along the banks of channels, watercourses and drainage devices downstream and adjacent to the project area for evidence of erosion.	Ongoing from commencement of ground disturbance	No exposed surfaces outside the channel from which erosion could occur	<ol style="list-style-type: none"> Investigate cause. Implement erosion protection measures, such rock armouring or application of hydromulch to areas identified. Monitor the effectiveness of remedy. 	Refer to EMP 18: 2017.EMP18a 2017.EMP18b Site inspection (3 May 2017)	Conformant	Refer to EMP 18.	NR	Construction not yet commenced.

EMP Compliance Table 11 - Groundwater management and monitoring actions

Item	Action	Purpose	Timing	Evidence	Weaber Plain		Knox Creek Plain	
					Status	Comment	Status	Comment
EMP 83.	Expand the groundwater monitoring bore network to include: <ul style="list-style-type: none"> at least 20 'high intensity'+ regional bores at least 30 'low intensity'+ regional bores. 	To allow the collection of baseline and ongoing groundwater data to guide management.	Install prior to commencement of clearing of farm lots and at least 18 months before the commencement of irrigation.	2017.938.M4.3a (Strategen, 2017)	Completed	Item assessed as completed in a previous audit period.	NA	Item amended in Knox EMP (refer to KEMP 83).
KEMP 83	<i>Expand the groundwater monitoring bore network to include:</i> <ul style="list-style-type: none"> <i>'high intensity' regional bores (i.e. auto loggers installed)</i> <i>'low intensity' regional bores (i.e. no auto loggers installed but monitored manually).</i> 	<i>To allow the collection of baseline and ongoing groundwater data to guide management.</i>	<i>Install prior to commencement of clearing of farm lots, a minimum of 18 months prior to irrigation.</i>	KAI advice (28 December 2017)	NA	NA	Conformant	KAI advised no changes from the previous audit period (i.e. no new bores had been installed as construction not yet scheduled to commence), but that existing bores are still being monitored.
EMP 84.	Undertake monitoring of the parameters determined under Item 2 in bores established under EMP 83. <i>Item 2 refers to this item (EMP 84)</i>	To collect baseline and ongoing groundwater data to determine any adverse effects to the receiving environment as a result of the Proposal.	Commencing 18 months prior to commencement of irrigation. High intensity bores: <ul style="list-style-type: none"> groundwater levels and temperature (automatic, daily) 	KAI advice (28 December 2017) 2017.EMP84a 2017.EMP84b 2017.EMP84c	PNC	The 2015 and 2016 auditors (Strategen) noted that: KAI advised that for low intensity bores it has, with IRG endorsement, adopted the monitoring regime recommended by DAFWA (DPIRD) following analysis of the 3 year baseline results. Triennial atrazine and metals monitoring in high intensity bores occurred in the dry season of 2017. Nutrient and other parameters were also tested across the bores in the dry season of 2017. In situ parameters were assessed in both seasons. KAI advised that data logger downloading to secure daily temperature and depth data was undertaken by DPIRD staff in October	NA	Item amended in Knox EMP (refer to KEMP 84).

			<ul style="list-style-type: none"> EC, pH, TDS, major cations and anions, nutrients and pesticides seasonally. <p>Low intensity bores:</p> <ul style="list-style-type: none"> groundwater levels, EC, pH, TDS, nutrients and pesticides seasonally. 			<p>2017. Results were not available at the time of this audit.</p> <p>Groundwater levels, EC and pH were recorded by the loggers for high intensity bores. However, monitoring of pesticides was not undertaken [as this is not a requirement of the Independent Review Group, following baseline studies]. It is this element of the action that indicates the PNC.</p> <p>The 2015 recommendation is retained. Previous auditors recommended that a review of the groundwater monitoring regime required under the EP Act (i.e. this EMP) for both the Weaber and Knox Creek Plains is undertaken to ensure alignment and consistency with the EPBC Act approval (and any variation to that approval) as informed and recommended by the IRG to the satisfaction of the OEPA.</p>		
KEMP 84	<p>Undertake monitoring of the parameters below for bores established under Item 1 (KEMP 83)</p> <p>High intensity bores:</p> <ul style="list-style-type: none"> groundwater levels and temperature (automatic, daily) EC, pH, TDS, nutrients and pesticides seasonally <p>Low intensity bores:</p> <ul style="list-style-type: none"> groundwater levels, EC, pH, TDS, nutrients and pesticides seasonally. 	To collect baseline and ongoing groundwater data to determine any adverse effects to the receiving environment as a result of the Proposal.	Commencing 18 months prior to commencement of irrigation.	2017.938.M4.3a (Strategen, 2017) KAI advice (28 December 2017) 2017.EMP84a 2017.EMP84b 2017.EMP84c	NA	NA	NR	Baseline groundwater monitoring has commenced. Refer to EMP 84 (for Weaber Plain) regarding monitoring of atrazine (pesticides). As irrigation is not scheduled to commence until 2018 at the earliest, this item has not been assessed as NR.
EMP 85.	Undertake monitoring of the chemical and nutrient parameters determined by DoW licence conditions in bores established under Item 83.	To collect baseline and ongoing groundwater data.	Annually at commencement of dry season commencing 12 months prior to operation of	2017.938.M4.3a (Strategen, 2017)	Unable to audit	<p>Bores are for monitoring purposes only, not water abstraction and therefore a bore licence from DoW (now DWER) is not required.</p> <p><u>2015 recommendation retained:</u> The auditors recommend deletion of this action as Department of Water (DoW)</p>	NA	Item not included in Knox EMP.

			irrigation infrastructure.			[now DWER] licence conditions are not applicable.		
EMP 86.	Expand the groundwater monitoring bore network with the establishment of at least one 'on-farm' bore per farm.	To allow the collection of baseline and ongoing groundwater data to inform management.	Install after clearing of farm lots but prior to commencement of irrigation.	KAI advice (28 December 2017). 2017.EMP86 2017.938.M4.3a (Strategen, 2017)	Conformant	Bores installed previously by DAFWA (DPIRD) or KAI. No change to bore map provided in previous audit (Strategen 2017). Existing bores utilised where located immediately adjacent to farm lots.	NR	Clearing of farm lots not yet commenced.
EMP 87.	Determine sampling parameters for 'on farm' bores in consultation with the IRG including: <ul style="list-style-type: none"> • groundwater levels • EC • pH. 	To inform management.	Prior to commencement of irrigation and annually after the commencement of irrigation.	KAI advice (28 December 2017). 2017.938.M4.3a (Strategen, 2017)	Conformant	KAI advised that sampling parameters have not changed. Groundwater monitoring is overseen by the Independent Review Group established under EPBC 2010/5491 requirements.	NA	Item amended in Knox EMP (refer to KEMP 87).
KEMP 87	<i>Determine sampling parameters for 'on farm' bores including:</i> <ul style="list-style-type: none"> • <i>groundwater levels</i> • <i>EC</i> • <i>pH.</i> 	<i>To inform management.</i>	<i>Prior to commencement of irrigation and annually after the commencement of irrigation.</i>	NA	NA	NA	NR	Irrigation not yet commenced.
EMP 88.	Undertake monitoring of the bores established under Item 86 for physical, chemical and nutrient parameters as determined by DoW licence conditions if regional bore groundwater quality exceeds triggers.	To increase the monitoring spatial intensity to help determine location and reasons for exceedance. To assist with development of appropriate contingency action.	Annually at commencement of dry season once trigger has been exceeded.	NA	NR	No DoW licence and therefore no conditions. The 2015 (Strategen, 2016) recommendation is retained, recommending the amendment to or deletion of this action as reference to DoW (DWER) licence conditions is not applicable.	NR	Construction not yet commenced. <u>2015 recommendation retained</u> : The auditors recommend amending or deleting this action as reference to DoW licence conditions is not applicable.
EMP 89.	Maintain a database of groundwater levels and groundwater quality data based on monitoring results.	To provide data to inform management. To be used in combination with high and low intensity bores where exceedances	Ongoing – database to be updated at least every six months with the database to be established prior to June 2013.	2017.EMP89 KAI advice (28 December 2017) 2017.EMP84a 2017.EMP84b 2017.EMP84c	PNC	2017 season records were retained and provided, however the database (2017.EMP89) had not been updated at the time of the audit. The PNC relates to the database not being updated with recent monitoring data.	NR	Monitoring data from Knox Creek Plain bores included in the data.

		of triggers are defined.						
EMP 90.	Establish and maintain a database of groundwater chemical and nutrient parameters.	To provide data to inform management.	Ongoing – database to be updated annually.	See 2017.EMP89	PNC	Refer to EMP 89.	NR	Monitoring data from Knox Creek Plain bores included in the data.
EMP 91.	Update groundwater model and operation of groundwater management system with monitoring data derived from EMP 84, 89 and 90, in consultation with the IRG.	To assist in determining an optimal dewatering strategy and to forecast potential breaches of trigger values within a ten year period.	Prior to commencement of irrigation and subsequently every 2–4 years depending on monitoring trends. If worst case scenario indicated a breach in trigger levels, modelling must be updated every two years.	KAI advice (28 December 2017).	Conformant	The 'Weaber-Knox' groundwater model was reviewed and updated in 2014. Updates are required every 2–4 years and such is required to be undertaken by 2018 at the latest. The groundwater model was not updated during this audit period.	NA	Item amended in Knox EMP (refer to KEMP 91).
KEMP 91	<i>Update groundwater model and operation of groundwater management system with monitoring data.</i>	<i>To assist in determining an optimal dewatering strategy and to forecast potential breaches of trigger values within a ten year period.</i>	<i>Prior to commencement of irrigation and subsequently every 2–4 years depending on monitoring trends. If worst case scenario indicated a breach in trigger levels, modelling must be updated every two years.</i>	NA	NA	NA	NR	Irrigation not yet commenced.
EMP 92.	Define the conditions at which various irrigation methods can be utilised for the leased farms on the Weaber Plain development	To maximise water use efficiency and minimise potential environmental impacts of shallow	Review every five years in association with modelling from the	N/A	NR	Irrigation commenced in 2015. Review of irrigation conditions not required until 2019.	NA	Item amended in Knox EMP (refer to KEMP 92).

	based on the outcomes of future modelling undertaken.	groundwater levels by managing irrigated agriculture and/or cropping systems where required, e.g. on leased farms.	commencement of irrigation.					
KEMP 92	<i>Define the conditions at which various irrigation methods can be utilised for the Knox Creek Plain farms, based on the outcomes of modelling undertaken.</i>	<i>Refer to EMP 92.</i>	<i>Refer to EMP 92.</i>	NA	NA	NA	NR	Irrigation not yet commenced.
EMP 93.	Adopt ANZECC guidelines trigger values for a 'high conservation/ecological value system' for three years then adopt appropriate site-specific trigger levels for chemicals and nutrients in accordance with ANZECC & ARMCANZ guidelines (2000).	To ensure monitoring and management responses relate to appropriate trigger levels.	For the initial three years, after which site-specific triggers will be adopted.	KAI advised no change from previous status (interview; 28 December 2017). Refer to previous audit - 2017.938.M4.3a (Strategen, 2017)	Conformant	A review of this action, as previously supported by the 2016 auditors (Strategen) is supported.	NA	Item amended in Knox EMP (refer to KEMP 93).
KEMP 93	<i>Adopt water quality trigger values established under the requirements of EPBC Approval 2010/5491.</i>	<i>To ensure monitoring and management responses relate to appropriate trigger levels.</i>	<i>Ongoing</i>	KAI advised no change (28 December 2017). Refer to previous audit - 2017.938.M4.3a (Strategen, 2017)	NA	NA	Conformant	Refer to EMP 93 (Weaber Plain). This is being managed under the guidance of the IRG, which references the EPBC Act approval.

EMP Compliance Table 12 - Groundwater contingency actions

Item	Trigger	Corrective action	Timing	Evidence	Weaber Plain		Knox Creek Plain	
					Status	Comment	Status	Comment
EMP 94.	Groundwater levels, soil salinity and quality exceed or are likely to exceed trigger levels	<ol style="list-style-type: none"> 1. Investigate cause. 2. Implement actions consistent with Groundwater Management Plan (Appendix 3) (e.g. modify land use/irrigation strategies, groundwater extraction). 3. Document changes in Annual Environmental Report (AER). 	Refer to EPBC-approved Groundwater Management Plan	Refer to EMP 19, EMP 84, EMP 88 and EMP 93 2017.EMP94	PNC	This PNC is carried forward from 2016 (Strategen, 2017). Soil salinity monitoring has been undertaken during the audit period. Groundwater quality data provided now includes trigger levels for some (but not all) of the analytes listed under EMP 84. No information was provided in relation to how exceedances are to be addressed. In line with the previous (2016) recommendation, the finding of this audit is that the groundwater monitoring actions are reviewed in consideration of the requirements of the EPBC approval, in conjunction with the IRG and the Department of Environment and Energy, and the OEPA, to ensure the intent of the groundwater actions, the monitoring regime and corrective actions are satisfactory. It is noted that the EMP review is in progress. 2017.EMP94 provides a letter from the IRG to the Minister for the Environment, similarly seeking a full review of groundwater monitoring and management requirements.	NR	Irrigation not yet commenced.
EMP 95.	<p>Levels of chemicals and nutrients exceed scenarios that show:</p> <ul style="list-style-type: none"> • an increasing trend in the concentration of any chemical (at statistical confidence levels) • an exceedance of the site-specific triggers for a particular chemical over two consecutive years. 	<ol style="list-style-type: none"> 1. Implement EMP 8 and 9 (Table 14) [KEMP: item 6 (Table 14)] to better map the distribution of groundwater exceeding target levels. 2. Investigate cause. 3. In consultation with the IRG, identify remedial action required, which could include the modification of irrigation and agricultural practices, reducing or ceasing the use of fertiliser and/or chemicals, groundwater abstraction or a combination of these measures. 4. Implement remedial action immediately after trigger levels are exceeded or, in consultation with the IRG, at an appropriate time. 	Refer EPBC Groundwater Management Plan	Refer to EMP 93 and EMP 94	PNC	The 2016 audit finding (Strategen, 2017) is retained – <i>the information provided is inadequate to readily determine if this action has been conformed with; as such, the auditors conclude this item is potentially non-conformant. However, as discussed above, the auditors acknowledge revisions to the monitoring and management regime based on DAFWA studies and IRG advice and anticipate these changes address the intention of this EMP action; however, this should be confirmed with the OEPA and the EMP revised accordingly to avoid ongoing ambiguities and potential inconsistencies.</i> Previous auditors recommended this action is revised to satisfaction of OEPA. This current audit similarly concludes that a full review of the EPBC Groundwater Monitoring Plan and associated actions and monitoring regime is required, in conjunction with the IRG, noting that the groundwater actions included in the 2013 EMP (as the basis for this audit) were taken from	NR	Irrigation not yet commenced.

		<p>5. Monitor success of remedy quarterly for 12 months or, following consultation with the IRG and in accordance with the advice from the IRG, <i>(the following text from KEMP only)</i> in relation to the impacts of MNES in the Keep River.</p> <p>6. Document changes in Annual Environmental Report (AER).</p>				<p>the EPBC-approved Groundwater Management Plan. Subsequent post-baseline management changes under the EPBC approval have resulted in inconsistencies between the documents, which need to be addressed with the approval of both State and Commonwealth regulators.</p>		
--	--	---	--	--	--	---	--	--

EMP Compliance Table 13 - Discharge management actions

Item	Action	Purpose	Timing	Evidence	Weaber Plain		Knox Creek Plain	
					Status	Comment	Status	Comment
EMP 96.	Construct a tailwater retention area on each farm lot sufficient to retain stormwater runoff during the periods most critical (low flow periods) to the Keep River system in consultation with DAFWA and the Office of the Environmental Protection Agency.	Capacity to manage runoff to avoid transporting chemicals downstream.	Prior to commencement of irrigation	Site inspections (3 May 2017 and 28 December 2017).	Conformant	Operational tailwater retention dams were observed on lot 14, lot 3 and lot 9. The <u>2016 recommendation is retained</u> : The auditors previously recommended revision of the wording of this action as the need for tailwater retention areas in each lot is no longer valid and retention areas are being constructed to receive water from more than one farm lot (Strategen, 2017).	NA	Item amended in Knox EMP (refer to KEMP 96).
KEMP 96	<i>Construct a tailwater retention area on each farm lot sufficient to retain stormwater runoff during the periods most critical (low flow periods) to the Keep River system.</i>	<i>Capacity to manage runoff to avoid transporting chemicals downstream.</i>	<i>Prior to commencement of irrigation</i>	NA	NA	NA	NR	Construction not yet commenced.

EMP 97.	No usage of chemicals and fertilisers when the tailwater retention capacity is unavailable.	To prevent the transporting of nutrients and chemicals downstream.	Ongoing from commencement of farming	Site inspections (3 May 2017 and 28 December 2017).	Conformant	As noted in previous audits by Strategen (2016 and 2017), tailwater retention capacity has not been reached nor is it ever expected to in the dry season as the capacity of retention areas includes a 25 mm threshold for rainfall runoff. KAI reaffirmed this tailwater holding capacity.	NR	Construction not yet commenced.
EMP 98.	Provide an Information Package to prospective landowners/lessees, which: <ul style="list-style-type: none"> • outlines the susceptibility of soil to erosion from high intensity rainfall during the wet season • encourages maintenance of crop cover during the wet season to reduce soil erosion • outlines optimal irrigation strategies to reduce potential impacts of sodicity and salinity • includes information regarding identification of salinity and sodicity and mechanisms to report this to the Proponent. 	To minimise the potential for agricultural practices to result in erosion by ensuring prospective landowners are aware of the risks and appropriate management measures.	At sublease of farm lots	Refer to previous audit - 2017.938.M4.3a (Strategen, 2017)	Completed	Item assessed as completed in a previous audit period.	NR	Construction not yet commenced.

EMP 99.	<p>Determine AUSRIVAS trigger score levels for aquatic macro-invertebrates in consultation with the IRG.</p> <p>Updated wording of Commonwealth EPBC Approval (2010/5491) condition 11f: <i>"Use of best practice multivariate analyses on species level macro-invertebrates and fish assemblage data, within an adequate experimental design (as defined in the AFMP required under condition 10), using multiple indices of 'ecological condition' and a 'weight of evidence' approach, to assess any change in ecological health of Keep River pools (K1, 2, and 3) relative to baseline and upstream reference sites'.</i></p>	To manage the discharge of stormwater and surplus groundwater to protect the downstream environment and EPBC listed species.	Prior to commencement of irrigation	Refer to previous audit - 2017.938.M4.3a (Strategen, 2017)	Completed	Item assessed as completed in a previous audit period.	NA	Item amended in Knox EMP (refer to KEMP 99).
KEMP 99	Adopt water quality trigger levels, as developed in consultation with the IRG under EPBC Approval 2010/5491 and EPBC 2014/7143.	To manage the discharge of stormwater and surplus groundwater to protect the downstream	Prior to commencement of irrigation	2017.938.M4.3a (Strategen, 2017)	NA	NA	NR	Irrigation not expected to commence until 2018 at the earliest.

		<i>environment and EPBC listed species.</i>						
EMP 100.	Establish and update annually, a list of key analytes (chemicals and nutrients) to be sampled, based on-farm practices as part of ongoing water quality monitoring in consultation with DAFWA, DoW and the IRG.	To ensure key chemicals and nutrients are included in water quality monitoring.	Prior to commencement of planting of crops, then ongoing annually	2017.EMP100a 2017.EMP100b	Conformant	KAI provides an annual chemical risk assessment update to the IRG. As advised by previous auditors, DAFWA (DPIRD) provides Executive Support to the IRG. The Department of Water and Environmental Regulation (DWER) is not represented, and has never been involved in contributing to the development or revision of such a list. The auditor retains the sentiment of the 2016 audit (Strategen, 2017) that this action be revised.	NA	Item amended in Knox EMP (refer to KEMP 100).
KEMP 100	<i>Establish and update annually, a list of key analytes (chemicals and nutrients) to be sampled, based on-farm practices as part of ongoing water quality monitoring</i>	<i>To ensure key chemicals and nutrients are included in water quality monitoring.</i>	<i>Prior to commencement of planting of crops, then ongoing annually</i>	2017.938.M4.3a (Strategen, 2017)	NA	NA	NR	Planting of crops not expected to occur until 2018 at the earliest.
EMP 101.	Install a water quality and flow gauging station capable of sampling, on a flow proportional basis (at least sub-daily when required) at the stormwater outlet from the Development Area.	To determine flow rate from the Project Area to inform management.	Prior to commencement of planting of crops	2017.938.M4.3a (Strategen, 2017)	Completed	DW1 Gauging Station installed on Border Creek sighted during site inspection. Automatic sampling and monitoring program (SCADA) also sighted. The SCADA program has the ability to undertake automatic and manual samples.	NA	Item amended in Knox EMP (refer to KEMP 101).
KEMP 101	<i>Install a water quality and flow gauging station at the stormwater outlet from the Development Area.</i>	<i>To determine flow rate from the Project Area to inform management.</i>	<i>Prior to commencement of planting of crops</i>	NA	NA	NA	NR	Planting of crops not expected to occur until 2018 at the earliest.

EMP 102.	Monitor water quality at the stormwater outlet from the Development Area, in consultation with DAFWA, DoW and DPW AND/OR DER.	To determine salinity and nutrient contribution from the Project Area to inform management.	On a flow proportional basis (with the ability to sample sub-daily as required)	2017.EMP102a 2017.EMP102b	Conformant	Limited water quality sampling was undertaken at the stormwater outlet in 2017. No dry season flows were recorded. KAI advised that the 2017 surface water monitoring report (2017.EMP102a) was provided to DPIRD (DAFWA), DWER (DoW) and the IRG. IRG meeting minutes (February 2018 – refer to 2017.EMP102b) indicate that following review of the 2017 Goomig season report, the IRG is requesting a wholesale review of water quality monitoring and the Stormwater and Groundwater Discharge Management Plan required under the EPBC approval (and from which Plan this action originates).	NA	Item amended in Knox EMP (refer to KEMP 102).
KEMP 102	<i>Monitor water quality at the stormwater outlet from the Development Area</i>	<i>To determine salinity and nutrient contribution from the Project Area to inform management.</i>	<i>On a flow proportional basis (with the ability to sample sub-daily as required)</i>	NA	NA	NA	NR	Construction not yet commenced.
EMP 103.	Ensure the flow gauging stations at Border Creek and the Keep River have the required accuracy to measure low flow rates in consultation with the Northern Territory NRETAS and IRG.	To provide flow data to manage the discharge of stormwater and surplus groundwater.	Prior to commencement of planting of crops	2017.938.M4.3a (Strategen, 2017)	Completed	Assessed as complete in a previous audit.	NA	Item not included in Knox EMP.
EMP 104.	Monitor water flow at the stormwater outlet from the Development Area, Border Creek and the Keep River, determined in consultation with IRG, DAFWA, DoW and DPW AND/OR DER.	To preserve and protect the water quality of the Keep river and EPBC listed species, prevent erosion of the banks of the Keep River and provide maximum	Ongoing from commencement of irrigation	2017.EMP102a	Conformant	Refer to EMP 102. . The previous auditors (Strategen, 2017) noted that telemetered flow monitoring is being undertaken at the stormwater outlet (DW1GS), Border Creek Gauging Station and the Keep river Gauging Station. Physical and telemetered flow monitoring occurred throughout 2017, an no dry season flows through the DW1GS were recorded <u>The 2015 recommendation is retained:</u> Previous auditors recommended consideration be given to clarifying the timing of this action to state “When flowing in the dry season”. Previous auditors also recommended consideration be given to revision of the parties listed for consultation to the IRG,	NA	Item amended in Knox EMP (refer to KEMP 104).

		mixing potential.				subject to the advice and satisfaction of the OEPA (Strategen, 2017).		
KEMP 104	<i>Monitor water flow at the stormwater outlet from the Development Area and the Keep River.</i>	<i>To preserve and protect the water quality of the Keep river and EPBC listed species, prevent erosion of the banks of the Keep River and provide maximum mixing potential.</i>	<i>Ongoing from commencement of irrigation</i>	NA	NA	NA	NR	Irrigation not yet commenced.
EMP 105.	Develop and implement an adaptive groundwater and stormwater discharge program that addresses: <ul style="list-style-type: none"> • design and location of dewatering infrastructure • design and location of discharge infrastructure • discharge rates, rules and contingency actions • monitoring locations and requirements including infrastructure and setup 	To provide information for adaptive management of the discharge of stormwater and surplus groundwater.	Ongoing after sale/lease of farmland and prior to the commencement of stormwater and groundwater discharge from operational farms	KAI advice (28 December 2017)	NR	KAI advised groundwater (and stormwater during the dry season) is not being discharged from the Project area.	NR	Construction not yet commenced.

	<ul style="list-style-type: none"> written evidence of any Northern Territory Government permits that are required for discharge of groundwater management measures that ensure discharge of water will not impact on water quality in Border Creek/Keep River; this includes erosion protection measures. 							
EMP 106.	Refine the discharge dilution model/relationship based on river flow monitoring data and water quality history from the Ord Stage 1 D4 drain and available water quality data from the Keep River system.	To determine when flow rates at Border Creek and the Keep River fall below a minimum flow rate to enable flushing.	Prior to commencement of irrigation	2017.938.M4.3a (Strategen, 2017)	Completed	Identified as completed in a previous audit. However, the auditor acknowledges the IRG request for a full review of the Stormwater and Groundwater Discharge Management Plan, from where this action originates.	NA	Item amended in Knox EMP (refer to KEMP 106).
KEMP 106	<i>Refine the discharge dilution model/relationship based on river flow monitoring data</i>	<i>To determine when flow rates at the Keep River fall below a minimum flow rate to enable flushing.</i>	<i>Prior to commencement of irrigation</i>	NA	NA	NA	NR	Irrigation not expected to commence until 2018 at the earliest.
EMP 107.	Refine the discharge dilution model/relationship based on flow monitoring data	To determine when flow rates at the Keep River fall below a	On a seasonal basis, commencing 12 months after	2017.938.M4.3a (Strategen, 2017)	Conformant	Refer to EMP 106 and previous audit commentary. A full review of the Stormwater and Groundwater Discharge Management Plan approved under EPBC 2010/5491 has been identified by the IRG as necessary.	NR	Irrigation not yet commenced.

	from the Development Area and the Keep River system and water quality characteristics of stormwater from the Development Area.	minimum flow rate to enable flushing.	commencement of irrigation					
EMP 108.	Refine flow trigger values for the Keep River and Border Creek gauging station based on the refined discharge dilution model and Operational Surface Water Model.	To determine when flow rates at Border Creek and the Keep River fall below a minimum flow rate to enable flushing.	Ongoing after sale/lease of farm lots or commencement of farming activity	2017.938.M4.3a (Strategen, 2017) 2017.EMP100b 2017.EMP102b	PNC	Refer to EMP 106 & 107. As identified in 2015 and 2016, the auditors were advised that flow-trigger values have still not been established; hence this item remains potentially non-conformant. However, as indicated in the 2016 audit (Strategen, 2017) <i>'The combined pool volume of the K1, K2 and K3 pools is 1.26GL (Surrich 2014). In the event that a dry season flow occurred through the DW1 Gauging Station, it is likely that (a) much of the flow would soak into the dry ground, and not make it to the Keep River; and (b) if the flow was substantial enough to make it to the Keep River, flushing 1.26GL+ of freshwater from the M2 channel would flush the pools and provide for sufficient dilution. Flushing with M2 water in the event of a dry season tailwater flow is the mandated mitigation action under the EPBC approval. As such, flow trigger values are not really needed. In the event of a dry season flow, M2 channel flushing would occur to mitigate risk if the flow was sufficient to make it to the Keep River'.</i> Previous audits have recommended this action be revised. The IRG (see 2017.EMP100b and 2017.EMP102b), upon reviewing 2017 surfacewater monitoring reports, reached a similar conclusion regarding all surface water monitoring and management arrangements.	NA	Item amended in Knox EMP (refer to KEMP 108).
KEMP 108	<i>Review/refine trigger values for the Keep River pools.</i>	<i>To update discharge model.</i>	<i>Annually</i>		NA	NA	NR	Irrigation not yet commenced.

EMP Compliance Table 14 - Discharge monitoring regime and corrective actions

Item	Activity and location	Frequency	Target	Corrective action	Evidence	Weaber Plain		Knox Creek Plain	
						Status	Comment	Status	Comment
EMP 109.	Telemetered flow monitoring at development gauge, existing gauging stations along Border Creek and the Keep River and in groundwater discharge pipe.	Continuous (hourly) flow monitoring when stormwater or groundwater discharge occurs.	No discharge of surplus groundwater to the Keep River unless there is sufficient threshold natural flow. No significant impact on the health of aquatic ecosystems from stormwater and surplus groundwater.	<ol style="list-style-type: none"> Investigate cause. This could include examining management practices and identifying instances where water may have been unnecessarily discharged during low flow periods. Conduct an intensive water quality sampling program upstream and downstream of the discharge point. Immediately initiate processes to identify whether remedial action is required, in consultation with the IRG. Remedial actions could include: <ul style="list-style-type: none"> releasing irrigation water from the M2 channel into Border Creek increasing groundwater pumping into the Ord Stage 1 or 2 supply channel during periods of low river flow installing additional erosion protection educating farm owners/managers revision of management practices (including groundwater discharge rules). Implement remedial action/s. Monitor success of remedial action/s quarterly for a period of 12 months Report on any findings as a result of monitoring. 	2017.EMP102a	Conformant	<p>Flow monitoring has occurred through the DW1 Gauging Station, as reported in the KAI 2017 surface water season report.</p> <p>Accessing flow data has proved problematic. An IRG-initiated review is considering the implications of the current monitoring system and reliance on telemetered data systems in the Kimberley climatic extremes.</p>	NA	Item amended in Knox EMP (refer to KEMP 109).
KEMP 109	<i>Telemetered flow monitoring at the development gauge, and the existing gauging station on the Keep River and in groundwater discharge pipe.</i>	<i>Refer to EMP 109</i>	<i>Refer to EMP 109.</i>	<i>Refer to EMP 109.</i>	NA	NA	NA	NR	Construction not yet commenced.

EMP 110.	Aquatic ecology monitoring (including aquatic invertebrates and fish) in the Keep River pools (K1, K2, K3 and K4) and threatened aquatic ecology monitoring (this includes the Speartooth shark [Glyphis glyphis], Northern river shark [Glyphis garricki], Dwarf Sawfish Pristis clavata and Pristis Microdon) at three sites in the Keep River estuary (EST1, EST2, EST3). Monitoring to be supported by concurrent sampling at five control / reference locations to differentiate natural changes from those potentially resulting from the action (as listed in the Aquatic Fauna Management Plan).	Annually in the late dry season from the commencement of the action. Initially for three years to establish a baseline, and then for a further three years post-development. If there is no detectable effect on any of the species included in the aquatic monitoring program, then frequency is reduced to three-yearly, or in response to known events that may result in exceedances of site-specific trigger values for water quality Keep River.	No detrimental change in the AUSRIVAS macroinvertebrate category and in fish assemblage composition that is caused by the action. This can be resulting from stormwater, surplus groundwater and groundwater seepage increases, as compared against reference sites that reflect natural variability in ecosystem health.	<ol style="list-style-type: none"> 1. Immediately investigate cause over a period of at least 12 months through reviewing management practices and determining whether ecological health of aquatic fauna has deteriorated. 2. Identify remedial action required. Remedial actions could include: <ul style="list-style-type: none"> • releasing irrigation water from the M2 channel in Border Creek • increasing the pumping rates of the eastern bores to reduce groundwater seepage • increasing groundwater pumping into the Ord Stage 1 or 2 supply channel during periods of low river flow • potentially, pending analysis, discharging groundwater into the lower Keep River estuary • installing additional erosion protection • educating farm owners/managers • revision of management practices (including groundwater discharge rules) • review flow monitoring data. 3. Implement remedial action/s, as required, immediately or at a time determined with the IRG to be appropriate. 4. Monitor success of remedial action/s at least quarterly for 12 months. 5. Report on any findings in Annual Environmental Report (AER) as a result of monitoring. 	2017.938.M4.3 a (Strategen, 2017)	3-year baseline study - Completed. 3-years post-development - NR	Baseline study assessed as completed a previous audit period. The IRG supports the commencement of the “three years’ post-development” aquatic fauna monitoring as being the year that 90% of Goomig farms are irrigated. This has not yet occurred.	NA	Item amended in Knox EMP (refer to KEMP 110).
----------	--	---	---	--	-----------------------------------	---	---	----	---

KEMP 110	Utilise the aquatic ecology monitoring conducted under EPBC Approval 2010/5491 as an indicator of the outcomes of the combined Weaber and Knox management.	Ongoing	Refer to EMP 110.	Refer to EMP110.	NA	NA	NA	NR	Construction not yet commenced in the Knox Plain area. Post-development aquatic ecology monitoring conducted under EPBC Approval 2010/5491 not yet commenced.
-----------------	--	---------	-------------------	------------------	----	----	----	----	---

EMP Compliance Table 15 - Biodiversity and habitat management actions

Item	Action	Purpose	Timing	Evidence	Weaber Plain		Knox Creek Plain	
					Status	Comment	Status	Comment
EMP 111.	Induct personnel on biodiversity and habitat management measures	To minimise potential for adverse environmental impacts by ensuring personnel are informed of appropriate environmental management procedures.	Within one week of personnel commencing work on-site	2017.EMP2a 2017.EMP2b	Conformant	Formal inductions are undertaken by KAI with general environmental management inclusions.	NR	Construction not yet commenced.
EMP 112.	Ensure development maps clearly delineate the Buffer Area and Development Area.	To prevent unauthorised clearing by ensuring clearing boundaries are appropriately documented.	Prior to ground disturbance	2017.938.M4.3a (Strategen, 2017)	Completed	Item assessed as completed in a previous audit period.	NR	Construction not yet scheduled – development on hold.
EMP 113.	Delineate the boundaries of the vegetation to be cleared for construction in the field with flagging tape, signage or fencing.	To prevent unauthorised clearing by ensuring clearing boundaries are	Prior to ground disturbance	2017.938.M4.3a (Strategen, 2017)	Completed	Refer to EMP 6. Item assessed as Completed as construction in the Weaber Plain	NR	Construction not yet scheduled – development on hold.

		appropriately marked in the field.				development has been completed.		
EMP 114.	Restrict movement of construction machinery and equipment to designated tracks and roads.	To minimise disturbance by consolidating vehicle access to designated areas.	Ongoing from commencement of ground disturbance	2017.938.M4.3a (Strategen, 2017)	Completed	Refer to EMP 7. Item assessed as completed in a previous audit period.	NA	Item not included in Knox EMP.
EMP 115.	Stage clearing of vegetation so that areas are cleared only as required.	To minimise the area of exposed surfaces at any one time and to allow native animals the chance to move on.	During construction of shared infrastructure	2017.938.M4.3a (Strategen, 2017)	Completed	Refer to EMP 7. Item assessed as completed in a previous audit period.	NR	Construction not yet commenced.
EMP 116.	Manage topsoil in accordance with the Soil Management Sub-plan	To provide a natural source of seed, organic matter and microorganisms for areas to be rehabilitated.	During construction of infrastructure	2017.938.M4.3a (Strategen, 2017)	Completed	Item assessed as completed in a previous audit period.	NR	Construction not yet commenced.
EMP 117.	Give native animals encountered on-site the opportunity to move on if there is no threat to personnel safety in doing so.	To prevent injury or death to native animals.	Ongoing from commencement of ground disturbance	Site inspections (3 May 2017 and 28 December 2017) KAI advice (28 December 2017)	Conformant	No native animal encounters/incidents recorded. KAI advised of occasional road-kill incidents of wallabies only.	NR	Construction not yet commenced.
EMP 118.	Call the nominated carer or Wildlife Hotline to rescue sick or injured native animals if they are encountered.	To prevent loss of native animals.	Ongoing from commencement of ground disturbance	KAI advice (28 December 2017)	Conformant	Refer EMP 117. No calls required.	NR	Construction not yet commenced.

EMP Compliance Table 16 - Biodiversity and habitat management monitoring regime

Item	Activity and location	Frequency	Target	Corrective action	Evidence	Weaber Plain		Knox Creek Plain	
						Status	Comment	Status	Comment
EMP 119.	Compliance of marked clearing boundary with development maps.	Daily	No clearing adjacent to areas where clearing boundaries are not defined.	Report as Environmental Incident and initiate Incident Procedure which shall include: <ul style="list-style-type: none"> investigating the cause of the incident redefining boundaries. 	2017.EMP62 Site inspections (3 May 2017 and 28 December 2017) KAI advice (28 December 2017)	Conformant	A previous PNC on this action included incident reporting on accidental clearing in 2016 (between Lots 5 and 18). A 2017 monitoring photograph of this area is contained in 2017.EMP62. No further damage was observed during 2017 site inspections. Restoration to natural condition is occurring. Clearing in 2017 was within the pre-cleared boundaries of Lot 13.	NR	Construction not yet commenced.
EMP 120.	Extent of clearing and ground disturbance along pre-defined boundaries.	Daily	No clearing or disturbance outside of pre-defined boundaries (Figure 1).	Report as Environmental Incident and initiate Incident Procedure which shall include: <ul style="list-style-type: none"> investigating the cause of the incident redefining boundaries if due to inadequate boundary marking rehabilitating affected area as required in accordance with the Rehabilitation Management Sub-plan. monitoring the success of remedial action. 	2017.EMP62 Site inspections (3 May 2017 and 28 December 2017) KAI advice (28 December 2017)	Conformant	Refer to EMP119. Monitoring of remediation has occurred.	NR	Construction not yet commenced.

EMP Compliance Table 17 - Buffer management actions

Item	Action	Purpose	Timing	Evidence	Weaber Plain		Knox Creek Plain	
					Status	Comment	Status	Comment
EMP 121.	Control vehicle access to the buffer through designated tracks, and provision of signage to inform of restrictions to areas, including speed restrictions, hygiene protocols, and to advise that no off-track driving is permitted.	To minimise impacts to the buffer by consolidating and restricting access	At all times	Site inspections (3 May 2017 and 28 December 2017) KAI advice (28 December 2017)	Conformant	Signage to control access to the Buffer Area observed during site inspection. KAI previously advised auditors that access tracks through the Buffer Area are not signposted with vehicle speeds, hygiene protocols etc. to minimise the risk of unauthorised access (i.e. signage would only draw attention to these access tracks and increase likelihood of unauthorised access). This has not changed.	NA	Item amended in Knox EMP (refer to KEMP 121).
KEMP 121	<i>Control vehicle access to the buffer through designated tracks, and provision of signage to inform of restrictions to areas</i>	<i>To minimise impacts to the buffer by consolidating and restricting access</i>	<i>At all times</i>	NA	NA	NA	NR	Construction not yet commenced.
EMP 122.	Control human access to the buffer through provision of signage at entry points to Buffer Area advising of restrictions and no unauthorised access.	To minimise impacts to the buffer by restricting access	At all times	Site inspections (3 May 2017 and 28 December 2017) KAI advice (28 December 2017)	Conformant	Signage advising of restricted access observed during site inspection 28 December 2017.	NA	Item not included in Knox EMP.
EMP 123.	Induct all personnel constructing or utilising infrastructure within the Buffer Area, including roads, channels, groundwater bores and the phone tower, to advise on protocols for hygiene, wildlife encounters, prohibited activities etc.	To minimise potential for adverse environmental impacts by ensuring personnel are informed of environmental management procedures	Within one week of commencing work on-site	2017.EMP2a 2017.EMP2b	Conformant	Formal inductions are undertaken by KAI with general environmental management inclusions.	NA	Item amended in Knox EMP (refer to KEMP 123).
KEMP 123	<i>Induct all personnel constructing or utilising infrastructure within the Buffer Area, including roads and groundwater bores.</i>	<i>To minimise potential for adverse environmental impacts by</i>	<i>Within one week of commencing work on-site</i>	NA	NA	NA	NR	Construction not yet commenced.

		<i>ensuring personnel are informed of environmental management procedures</i>						
EMP 124.	Assess and map vegetation condition within the buffer according to the Keighery (1994) Vegetation Condition rating scale.	To provide data to inform management.	Prior to ground disturbance	2017.938.M4.3a (Strategen, 2017)	Completed	Item assessed as completed in previous compliance report.	Completed	Ord Land and Water conducted a vegetation condition assessment of the Knox Creek Plain Buffer Area in the previous audit period.
EMP 125.	Stabilise and revegetate areas identified as containing vegetation below a rating of 'Very Good' in accordance with species lists and planting procedures determined in consultation with DPW AND/OR DER.	To better enable the Buffer Area to fulfil its intended role and purpose by restoring ecological integrity and function to degraded areas.	Within 12 months of completion of construction of infrastructure	2017.938.M4.3a (Strategen, 2017) Site inspections 3 May 2017 and 28 December 2017	Conformant	This item was previously classified as a PNC as the Keighery assessment method was not in use. However, there is no indication (from site inspections) that stabilisation and revegetation is warranted. Natural regeneration has occurred and no notably degraded sites were identified during site inspections. As such, the action has been assessed as conformant. The previous auditor recommendation to amend or remove this action is retained. The intent has been met through natural regeneration.	NA	Item amended in Knox EMP (refer to KEMP 125).
KEMP 125	<i>Stabilise and spread topsoil (if available) in areas identified as containing vegetation below a rating of 'Very Good' in accordance with species lists and planting procedures determined in consultation with DPW.</i>	<i>To better enable the Buffer Area to fulfil its intended role and purpose by restoring ecological integrity and function to degraded areas.</i>	<i>Within 12 months of completion of construction of infrastructure</i>	NA	NA	NA	NR	Construction not yet commenced.
EMP 126.	In consultation with the DPW AND/OR DER and DoW, revegetate areas within the buffer with species selected specifically	To improve the ability of the buffer to reduce the potential	Within 12 months of completion of construction of	2017.938.M4.3a (Strategen, 2017)	NR	No buffer revegetation was required during the audit period.	NA	Item amended in Knox EMP (refer to KEMP 126).

	for their ability to lower the groundwater table, given the local soil, water and solute settings. Species used in such revegetation will be agreed with the DPW AND/OR DER and DoW.	impacts of elevated groundwater levels and minimise diffuse groundwater discharge (including salts) to downstream watercourses.	infrastructure and as determined to be required in consultation with DPW AND/OR DER and DoW	Site inspections 3 May 2017 and 28 December 2017				
KEMP 126	<i>If required for degraded areas, revegetate areas within the buffer with species selected specifically for their ability to lower the groundwater table, given the local soil, water and solute settings.</i>	<i>To improve the ability of the buffer to reduce the potential impacts of elevated groundwater levels and minimise diffuse groundwater discharge (including salts) to downstream watercourses.</i>	<i>Within 12 months of completion of construction of infrastructure and as determined to be required in consultation with DPW.</i>	NA	NA	NA	NR	Construction not yet commenced.
EMP 127.	Undertake weed control in areas identified as containing vegetation below a rating of 'Very Good', focusing on the most degraded areas first and in accordance with procedures detailed in the Weed, Plant Pathogen and Pest Animal Management Sub-plan.	To better enable the Buffer Area to fulfil its intended role and purpose by restoring ecological integrity and function to degraded areas.	Within 12 months of completion of construction of infrastructure and ongoing	2017.938.M4.3a (Strategen, 2017) Site inspections 3 May 2017 and 28 December 2017. KAI advice (28 December 2017)	Conformant	This item was previously identified as a PNC as assessment <i>using the Keighery method</i> is not routinely undertaken. KAI advised that weed control occurs where WoNS or declared weed species are identified, as part of ongoing farm and buffer management. Site inspections and buffer condition time series photos showed no evidence of decline or weed infestation. The status is thus considered 'conformant'. The previous (2016) auditor recommendation is retained: revision of this action to accurately reflect the weed control and monitoring program currently being undertaken, to the satisfaction of the OEPA	NR	Construction not yet commenced.
EMP 128.	Liaise with DPW with regard to their plans for implementation of the State Cane Toad Strategy	To reduce the potential effect of cane toads	As required	2017.938.M4.3a (Strategen, 2017)	Completed	Item assessed as completed in a previous audit period.	NA	Item not included in Knox EMP.

	(DEC 2009) in the Development Area.	on the Buffer Area.						
EMP 129.	Provide information to land owners and Traditional Owners, on the Cane Toad Strategy for Western Australia (DEC 2009).	To reduce the potential effect of cane toads on the Buffer Area	At sublease of farm lots	2017.938.M4.3a (Strategen, 2017)	Completed	Item assessed as completed in a previous audit period.	NA	Item not included in Knox EMP.
EMP 130.	Investigate the possibility of extending the DPW AND/OR DER Traditional Owner Ranger Program (Kununurra based) into the Buffer Area, or incorporating other Indigenous management initiatives – consult with MG Corporation regarding shared responsibilities for maintenance of the Buffer Area.	To maximise opportunities for involvement of Traditional Owners in ongoing management of the Buffer Area	Ongoing	2017.938.M4.3a (Strategen, 2017)	Completed	Item assessed as completed in a previous audit period.	Completed	Item assessed as completed as the investigation completed for Weaber Plain is assumed by the auditor to also be relevant to the Knox Creek Plain.
EMP 131.	Maintain the Buffer Area perimeter fencing, where required, to minimise stock invasion, remove introduced livestock, and continue to remove any subsequent invading livestock, as required, to protect native vegetation condition	To ensure species and habitats within the Buffer Area are not adversely affected by stock grazing	Ongoing	Site inspections 3 May 2017 and 28 December 2017.	Conformant	Buffer Area perimeter fencing observed during site inspection. Minimal evidence of stock presence was identified during either site inspection.	NR	Construction not yet commenced.
EMP 132.	Implement the Fire Management Sub-plan	To reduce the potential for impacts of fire on the buffer, infrastructure, MNES populations and habitats	Ongoing	Refer to EMP 45	Conformant	No key actions have been identified from the Fire Management sub-plan (FMP); therefore, the plan has not been audited. Previous auditors were advised in 2015 that the FMP is due for revision in 2016; however, this it yet to be done. KAI advised that fire management is primarily acting in accordance with the SWEK permit – Refer to EMP 45.	NR	Construction not yet commenced.

EMP Compliance Table 18 - Buffer monitoring actions

Item	Activity and location	Frequency	Target	Corrective action	Evidence	Weaber Plain		Knox Creek Plain	
						Status	Comment	Status	Comment
EMP 133.	Assess vegetation condition using the Keighery (1994) rating scale and update vegetation condition map.	Annually commencing within 12 months of the commencement of the action.	All areas within buffer to be in 'Very Good' or better condition.	Investigate cause, e.g. cattle intrusion, loss of seed through heavy rains. Take appropriate remedial actions, e.g. feral animal eradication programs, stabilise and revegetate area. Monitor success of remedy (annually at time of regular monitoring).	2017.EMP.133a Through to 2017.EMP.133r Site inspections 3 May 2017 and 28 December 2017.	PNC	This action is recorded as a PNC as the Keighery scale is not applied and vegetation condition mapping is not routinely updated. However, the intent of the action is being met, as evidenced through the photographic evidence samples (2017.EMP.133a through to 2017.EMP.133r) showing no decline in vegetation condition near tracks and around bores. KAI advised these inspections are undertaken during the bi-annual bore monitoring rounds. The previous audit suggestion to amend this action is supported.	NR	Construction not yet commenced.

EMP Compliance Table 19 - Rehabilitation management actions

Item	Action	Purpose	Timing	Evidence	Weaber Plain		Knox Creek Plain	
					Status	Comment	Status	Comment
EMP 134.	Select reference sites in buffer and conservation areas containing landforms and vegetation comparable (or likely to have been comparable) to those of planned disturbance areas not required post-construction.	To locate suitable sites against which to compare rehabilitation success.	Prior to ground disturbance	2017.938.M4.3a (Strategen, 2017)	Completed	Item assessed as completed in previous compliance report. <u>Note:</u> Area 11 will require rehabilitation and reference sites to compare revegetation to; however, as the area is still being used as a quarry, reference sites have not yet been selected for this area.	NR	Construction not yet commenced.
EMP 135.	Survey reference sites identified in EMP 134 to determine indicator species, density of native species, % cover of native species, native species richness and % weed cover as outlined in the monitoring procedures.	To provide data against which rehabilitation success can be measured.	Prior to ground disturbance and quarterly throughout the rehabilitation process	2017.EMP.54a 2017.EMP.54b 2017.EMP.54c Site inspections 3 May 2017 and 28 December 2017	PNC	KAI advised that monitoring of rehabilitation areas is now undertaken consistent with revised buffer monitoring, whereby condition is assessed and weed presence and any inconsistency with adjacent land is noted. This occurs bi-annually, during	NR	Construction not yet commenced.

						groundwater monitoring rounds. Reference site surveys are not being undertaken. Photographic records of rehabilitation site progress are retained by KAI.		
EMP 136.	Determine parameters and targets for each indicator species as appropriate. e.g. density of indicator species, % cover of indicator species, etc.	To enable specific aspects of rehabilitation success to be measured.	Prior to ground disturbance	2017.938.M4.3a (Strategen, 2017)	Completed	Item assessed as completed in a previous audit period.	NR	Construction not yet commenced.
EMP 137.	Undertake a weed survey of the project area to establish baseline information in accordance with the Weed, Plant Pathogen and Pest Animal Management Sub-plan.	To provide data to inform management.	As specified in the Weed, Plant Pathogen and Pest Animal Management Sub-plan	2017.938.M4.3a (Strategen, 2017)	Completed	Item assessed as completed in a previous audit period.	Completed	Item assessed as completed in the previous audit period.
EMP 138.	Develop a species list for seed collection based on species known to germinate from seed and/or that can be propagated by nurseries (may require consultation with nurseries and rehabilitation specialists in the area).	To maximise potential for rehabilitation success by ensuring appropriate species are used in seeding/planting.	As required for rehabilitation	2017.938.M4.3a (Strategen, 2017)	Completed	Item assessed as completed in a previous audit period.	NR	Seed collection not yet required.
EMP 139.	Contract experienced seed collector licensed by the DPW AND/OR DER to undertake a seed collection program of plant species endemic to the project area following Florabank Guidelines (Greening Australia 2009) including: <ul style="list-style-type: none"> gathering information and targeting certain species undertaking seed collection in the optimum season for the species collecting only mature seed determining seed collection method (e.g. natural seed fall, 	To maximise potential for rehabilitation success by ensuring seed collection is undertaken in accordance with appropriate guidelines and procedures.	As required for rehabilitation	2017.938.M4.3a (Strategen, 2017)	NR	Not required in this audit period.	NR	Seed collection not yet required.

	<p>collection by hand, mechanical harvesting, etc.</p> <ul style="list-style-type: none"> maintaining detailed record sheets to provide evidence that the seed is local provenance, e.g. date of collection, time of collection, person undertaking collection etc. preparing material for transportation. 							
EMP 140.	Ensure all seed to be used in rehabilitation is sourced from species that are endemic to the area/local provenance (unless otherwise authorised by the DPW AND/OR DER).	To ensure species used in rehabilitation have adaptations to suit local conditions.	As required for rehabilitation	Refer to EMP 139	NR	Refer to EMP 139	NR	Seed collection not yet required.
EMP 141.	Monitor the progress of seed collection and store and process seed in accordance with the seed collection and direct seeding procedure.	To maximise potential for rehabilitation success by ensuring seed collection is undertaken appropriately.	As required for rehabilitation	Refer to EMP 139	NR	Refer to EMP 139	NR	Seed collection not yet required.
EMP 142.	Implement hygiene management actions as outlined in the Weed, Plant Pathogen and Pest Animal Management Sub-plan.	To maximise potential for rehabilitation success by preventing the introduction and/or spread of weeds and plant pathogens into rehabilitation areas.	As specified in the Weed, Plant Pathogen and Pest Animal Management Sub-plan	Refer to EMP 62–67	Conformant	Refer to EMP 62–67	NR	Rehabilitation not yet commenced.
EMP 143.	Control stock within buffer area in accordance with the Weed, Plant Pathogen and Pest Management Sub-plan.	To maximise potential for rehabilitation success by preventing stock from entering rehabilitation areas.	As specified in the Weed, Plant Pathogen and Pest Animal Management Sub-plan	Refer to EMP 72	Conformant	Refer to EMP 72	NR	Construction not yet commenced.
EMP 144.	Ensure all foreign material is removed from the site to be recycled or reused where practicable, or disposed of off-site before rehabilitation is carried out.	To enable rehabilitation to commence.	Prior to rehabilitation	Site inspections (3 May 2017 and 28 December 2017)	Conformant	No new rehabilitation during this audit period. Area 11 is still to be rehabilitated; however, it is currently still in use.	NR	Construction not yet commenced.

EMP 145.	Areas suspected to be contaminated by spills or leaks of hydrocarbons and/or inappropriate disposal of wastes will be investigated to determine the presence and/or level of contamination.	To determine whether rehabilitation areas are required to be remediated.	Prior to rehabilitation	Site inspections (3 May 2017 and 28 December 2017)	Conformant	No new rehabilitation during this audit period.	NR	Construction not yet commenced.
EMP 146.	Remediate any soils that are determined to be contaminated.	To maximise potential for rehabilitation success by ensuring rehabilitation areas are not contaminated.	Prior to rehabilitation	Site inspections (3 May 2017 and 28 December 2017)	Conformant	No new rehabilitation during this audit period.	NR	Construction not yet commenced.
EMP 147.	Disturbed areas will be stabilised through a combination of contouring and slope stabilisation as required.	To minimise erosion of rehabilitated landforms.	Progressively as disturbed areas are no longer required	2017.938.M4.3a (Strategen, 2017)	Completed	Item assessed as completed in a previous audit period.	NR	Construction not yet commenced.
EMP 148.	All rehabilitation areas will be reshaped and contoured to blend with adjacent relief and drainage as far as practicable. This will include: <ul style="list-style-type: none"> the removal of impediments to run-off diversion of surface run-off around borrow pits to prevent flooding and potential instability of pit walls where necessary filling of borrow pits with subsoil to level of natural ground surface. 	To minimise erosion of rehabilitated landforms.	During the rehabilitation process	Site inspections (3 May 2017 and 28 December 2017)	Conformant	No new rehabilitation during this audit period.	NR	Rehabilitation not yet commenced.
EMP 149.	All tracks to be rehabilitated will be ripped or scarified to minimise compaction.	To maximise potential for rehabilitation success by allowing roots and water to penetrate the soil profile.	During the rehabilitation process	Site inspections (3 May 2017 and 28 December 2017)	Conformant	No new rehabilitation during this audit period.	NR	Construction not yet commenced.
EMP 150.	Remove topsoil from cleared areas and manage in accordance with the Biodiversity and Habitat Management Sub-plan.	To provide a natural source of seed, organic matter and microorganisms for areas to be rehabilitated.	During construction of shared infrastructure	2017.938.M4.3a (Strategen, 2017)	Completed	Item assessed as completed in a previous audit period.	NR	Clearing not yet commenced.

EMP 151.	Ensure material to be used for rehabilitation (e.g. topsoil, cleared vegetation, etc.) does not contain declared weeds.	To maximise potential for rehabilitation success by preventing the introduction and/or spread of declared weeds into rehabilitation areas.	Prior to rehabilitation	Site inspections (3 May 2017 and 28 December 2017)	Conformant	No new rehabilitation during this audit period.	NR	Clearing not yet commenced.
EMP 152.	Relocate stripped topsoil and (if applicable) cleared vegetation directly to areas required to be rehabilitated, where possible.	To maximise the benefits of using topsoil and mulch by minimising storage time.	During construction of shared infrastructure	2017.938.M4.3a (Strategen, 2017)	Completed	Item assessed as completed in a previous audit period.	NR	Construction not yet commenced.
EMP 153.	Spread stripped topsoil evenly across areas to be rehabilitated (to a nominal depth of approximately 100–150 mm). Work parallel with the contours as far as practicable, to minimise the creation of preferential drainage pathways.	To provide a natural source of seed, organic matter and microorganisms for areas to be rehabilitated.	During rehabilitation process	Site inspections (3 May 2017 and 28 December 2017)	Conformant	No new rehabilitation during this audit period.	NR	Rehabilitation not yet commenced.
EMP 154.	Rake rehabilitation areas to minimise potential impacts from compaction.	To maximise potential for rehabilitation success by allowing roots and water to penetrate the soil profile.	After spreading of topsoil and prior to placement of cleared vegetation	Site inspections (3 May 2017 and 28 December 2017)	Conformant	No new rehabilitation during this audit period.	NR	Rehabilitation not yet commenced.
EMP 155.	Where direct replacement of rehabilitation material (e.g. topsoil, cleared vegetation, etc.) is not possible, stockpile material for later use in rehabilitation activities.	To provide a natural source of seed, organic matter and microorganisms for areas to be rehabilitated.	During construction of shared infrastructure	2017.938.M4.3a (Strategen, 2017)	Completed	Item assessed as completed in a previous audit period.	NR	Clearing not yet commenced.
EMP 156.	Locate stockpiles of rehabilitation material (e.g. topsoil, cleared vegetation, etc.) within already disturbed areas wherever possible.	To minimise disturbance.	Ongoing from commencement of ground disturbance	Site inspections (3 May 2017 and 28 December 2017)	Conformant	No new rehabilitation during this audit period.	NR	Clearing not yet commenced.
EMP 157.	Restrict topsoil stockpile height to less than 2 m.	To conserve native seed banks for direct propagule return, reduce the risk of self-composting and provide opportunities for the roots of temporary vegetation	Ongoing from commencement of ground disturbance	Site inspections (3 May 2017 and 28 December 2017)	Conformant	No new rehabilitation during this audit period.	NR	Clearing not yet commenced.

		growing on the topsoil stockpile to reach the deepest parts of the stockpile, thereby sustaining many micro-organisms.						
EMP 158.	Where topsoil is not available, import topsoil in consultation with the Department of Parks and Wildlife (DPW) Kununurra office.	To provide a natural source of seed, organic matter and microorganisms for areas to be rehabilitated.	Prior to rehabilitation	NA	NR	No importation of topsoil has occurred to date.	NA	Item not included in Knox EMP.
EMP 159.	Provide temporary fencing and signage around rehabilitation areas.	To minimise disturbance to rehabilitation areas by restricting access.	During rehabilitation process	Site inspections (3 May 2017 and 28 December 2017)	Conformant	Signage and earthen bunds (fences) to prevent access observed.	NR	Rehabilitation not yet commenced.
EMP 160.	Inspect borrow pits no longer required following construction to ensure all pits are backfilled and rehabilitated such that they are free draining.	To ensure timely and appropriate rehabilitation of borrow pits.	As required	Site inspections (3 May 2017 and 28 December 2017)	NR	Inspections not required as Area 11 is still in use.	NR	Construction not yet commenced.
EMP 161.	Where there is insufficient subsoil for backfilling: <ul style="list-style-type: none"> import material for backfilling in consultation with DPW if applicable ensure pits are rehabilitated to minimise standing shallow water as much as possible. 	To minimise the creation of mosquito breeding habitat.	As required	NA	NR	Not required to date.	NA	Item not included in Knox EMP.

EMP Compliance Table 20 - Rehabilitation monitoring regime

Item	Activity location and Frequency/timing	Target	Corrective action	Evidence	Weaber Plain		Knox Creek Plain		
					Status	Comment	Status	Comment	
EMP 162.	Native species richness, density and % cover within rehabilitation sites as outlined in the	Twice annually (in May and October).	Mean native species richness, plant density and % cover in the rehabilitation site after five years (including at least two wet seasons where >75% of the long-term average	1. Identify cause. 2. Implement approach to remedy cause, which could include: <ul style="list-style-type: none"> application of fertilisers or wetting agents etc. if applicable 	Refer to EMP 135	PNC	Refer to EMP 135.	NR	No rehabilitation sites associated with Knox Creek Plain.

	monitoring procedures.		rainfall has fallen) is greater than: <ul style="list-style-type: none"> • 70% of the mean % cover of natives in the reference sites • 70% of the mean native species richness in the reference sites. 	<ul style="list-style-type: none"> • implement supplementary direct seeding or seedling planting program in accordance with procedures • review rehabilitation process and amend if appropriate. 3. Monitor success of approach.					
EMP 163.	Indicator species in rehabilitation sites.	Twice annually (in May and October).	As determined in accordance with Item EMP 136	1. Identify cause. 2. Implement approach to remedy cause, which could include: <ul style="list-style-type: none"> • application of fertilisers or wetting agents etc. if applicable • implement supplementary direct seeding or seedling planting program in accordance with procedures • review rehabilitation process and amend if appropriate. 3. Monitor success of approach.	Refer to EMP 135	PNC	Refer to EMP 135.	NR	No rehabilitation sites associated with Knox Creek Plain.
EMP 164.	Exotic species richness and % cover within rehabilitation sites as outlined in the monitoring procedures.	Twice annually (in May and October).	Exotic flora species: <ul style="list-style-type: none"> • no greater than 10% increase in weed species density/cover/distribution compared to reference sites • no Declared Plants present on-site six months following completion of construction. • no infested areas as defined in the Weed, Plant Pathogen and Pest Animal Management Sub-plan • no local priority areas as defined in the Weed, Plant Pathogen and Pest Animal Management Sub-plan • no new weed species present. 	1. Identify cause. 2. Identify the weeds, their location and coverage. 3. Implement remedy which could include: 4. implementing a weed control program 5. reinforcing management actions in the Weed, Plant Pathogen and Pest Animal Management Sub-plan and Rehabilitation Management Sub-plan. 6. Monitor success of control.	Refer to EMP 135	PNC	Refer to EMP 135.	NR	No rehabilitation sites associated with Knox Creek Plain.

EMP 165.	Erosion within and adjacent to rehabilitation sites.	Opportunistically following heavy rainfall events.	Ensure landform is safe and stable with no erosion occurring 18 months after rehabilitation.	<ol style="list-style-type: none"> 1. Identify cause of erosion. 2. Consult expert to determine appropriate remedy which may include <ul style="list-style-type: none"> • Installing culverts • Installing stormwater diversion structures. 3. Implement remedy. 4. Monitor success of remedy. 	Site inspections (3 May 2017 and 28 December 2017) KAI advice (28 December 2017)	Conformant		NR	No rehabilitation sites associated with Knox Creek Plain.
			Reconstructed landform can withstand exceedance of average rainfall occurrences for a period of 10 years.						

EMP Compliance Table 21 - Aboriginal heritage management actions

Item	Action	Purpose	Timing	Evidence	Weaber Plain		Knox Creek Plain	
					Status	Comment	Status	Comment
EMP 166.	Implement an induction program for personnel and contractors/consultants, and an information package for farm owners/managers, both of which containing information on: <ul style="list-style-type: none"> • significance of Aboriginal heritage and the potential impacts of the project • procedures to report potential new sites • obligations under the <i>Aboriginal Heritage Act 1972</i> (WA) • requirements for the protection of known Aboriginal sites. 	To ensure protection of known sites of Aboriginal heritage significance in accordance with the requirements of the <i>Aboriginal Heritage Act 1972</i> (WA), to improve knowledge of Aboriginal cultural heritage in non-indigenous people associated with the project.	Within one week of personnel commencing work on-site	2017.EMP2b	Farm sales package – Completed Induction program - PNC	Farm sales package assessed as completed in a previous audit period. Current KAI induction process does not explicitly include Aboriginal Heritage obligations	NR	Construction not yet commenced.
EMP 167.	Document the location of protected areas on development design plans and make available to planners, agents, contractors, and relevant personnel.	To ensure protection of known sites of Aboriginal heritage significance in accordance with the requirements of the <i>Aboriginal Heritage Act 1972</i> (WA), to improve knowledge of Aboriginal cultural heritage in non-indigenous people associated with the project.	Prior to ground disturbance	2017.938.M4.3a (Strategen, 2017)	Completed	Item assessed as completed in a previous audit period.	Conformant	Item assessed as conformant during the last audit period (i.e. location of protected areas are documented). As construction has not yet

								commenced, this information is not yet required to be provided to relevant contractors and personnel.
EMP 168.	Flag the boundaries of project areas to ensure activities do not intrude into areas where Aboriginal sites are present.		Prior to ground disturbance	2017.938.M4.3a (Strategen, 2017)	Completed	Item assessed as completed in a previous audit period.	NR	Construction not yet commenced.
EMP 169.	Place 'No Go' signage along boundaries immediately adjacent to Buffer Areas around protected Aboriginal sites.		Prior to ground disturbance	2017.938.M4.3a (Strategen, 2017)	Completed	Item assessed as completed in a previous audit period.	NR	Construction not yet commenced.
EMP 170.	If a suspected heritage site is detected follow procedures as outlined in the Heritage Site Detection Procedure. Potential heritage sites include stone/shell scatters (middens), stone tools, rock paintings and engravings, grinding patches, scar trees, ochre sites/quarries, and skeletal remains.	To ensure protection of previously unrecorded Aboriginal heritage sites detected during construction/clearing activities in accordance with the Aboriginal Heritage Act 1972 (WA).	Ongoing from commencement of ground disturbance	Site inspections (3 May 2017 and 28 December 2017) KAI advice 28 December 2017	Conformant	No new sites reported.	NR	Construction not yet commenced.
EMP 171.	Site heritage monitors from MG Corporation issued with a permit under Section 16 of the <i>Aboriginal Heritage Act 1972</i> (WA) will be on-site to monitor clearing and earthworks activities.		Ongoing from commencement of ground disturbance	KAI advice (28 December 2017).	PNC	Only minor clearing within Lot 13 was undertaken during this audit period. KAI advised that site heritage monitors from MG Corporation were not present during this clearing.	NA	Item not included in Knox EMP.
EMP 172.	A qualified archaeologist issued with a permit under Section 16 of the <i>Aboriginal Heritage Act 1972</i> (WA) will be available to come to site if a suspected heritage site is uncovered.		As required	KAI advice (28 December 2017).	NR	No suspected heritage sites have been identified during this audit period.	NA	Item not included in Knox EMP.

EMP 173.	The MG Corporation will be briefed on proposed works and work schedules and informed of detailed aspects of the project.	Ensure regular ongoing involvement of the Miriwung and Gajerrong people in heritage management throughout the life of the project, in accordance with the OFA and OES.	Prior to ground disturbance	Refer to previous audit – 2017.938.M4.3a	Completed	Item assessed as completed in a previous audit period.	NR	Construction not yet commenced.
EMP 174.	The MG Corporation will be involved in inspections of the Project Area throughout construction (with supporting briefing).		Quarterly and as required	Refer to previous audit – 2017.938.M4.3a.	Completed	Item assessed as completed in a previous audit period.	NR	Construction not yet commenced.
EMP 175.	Meet with MG Corporation to discuss broader issues of Aboriginal cultural heritage and heritage protection in and around the buffer, and associated social impact.		Annually and as required	KAI advice (June 2018)	Conformant	KAI advised that MG Corporation and KAI have agreed to EMIA and SPV arrangements and are waiting on WA government approval.	Conformant	
EMP 176.	Establish cultural heritage database with GIS records of site locations in the project area.	Establish and maintain up-to-date records on Aboriginal heritage sites within the project area.	Prior to ground disturbance	Refer to previous audit – 2017.938.M4.3a.	Completed	Item assessed as completed in a previous audit period.	Conformant	No change since previous audit.

EMP Compliance Table 22 - Aboriginal heritage monitoring regime and corrective actions

Item	Activity and location	Frequency	Target	Corrective action	Evidence	Weaber Plain		Knox Creek Plain	
						Status	Comment	Status	Comment
EMP 177.	Signage or temporary fencing/ tape showing heritage site locations.	Daily during clearing and construction.	No disturbance to sites not approved to be disturbed under Section 18 of the Aboriginal Heritage Act 1972 (WA).	5. Report as Environmental Incident and initiate Incident Procedure, including: <ul style="list-style-type: none"> stopping work in the vicinity of the boundary investigating the cause of the disturbance redefining boundaries if due to inadequate boundary marking rehabilitating vegetation in the area as required in accordance with the Rehabilitation Management Sub-plan restore the 'site' (e.g. scatters or middens could have been buried, rock art altered, skeletal remains exposed) – develop a remedial plan in consultation with appointed archaeologist and MG Corporation monitoring the success of remedial action. 	Refer to previous audit – 2017.938.M4.3a.	Completed	Item assessed as completed in a previous audit period.	NR	Construction not yet commenced.

				6. Consult with the Department of Aboriginal Affairs and MG Corporation to determine actions required to restore the site to its original condition.					
EMP 178.	Aboriginal monitors to check ground-disturbance work areas.	For each new area to be disturbed.	To identify new sites before clearing occurs.	Refer to Heritage Site Detection Procedure.	Refer to previous audit – 2017.938.M4.3a.	Completed	Item assessed as completed in a previous audit period.	NA	Item not included in Knox EMP.

Appendix 5 - Evidence Register

PART A – Evidence Summary

AUDIT CODE	REQUIREMENT	EVIDENCE CODE
938.M1.1	Implement proposal	N/A
938.M2.1	Contact details	2017.938.M2.1a 2017.938.M2.1b
938.M3.1	N/A - assessed as completed in previous audit	
938.M3.2	N/A - assessed as completed in previous audit	
938.M4.1	N/A - assessed as completed in previous audit	
938.M4.3	CAR completed 2016	2017.938.M4.3a
938.M4.3	CAR completed 2016	2017.938.M4.3b
938.M4.4	Retain compliance reports	2017.938.M4.3a
938.M4.5	7-day reporting of non-compliances	2017.938.M4.5
938.M4.6	CAR submitted	2017.938.M4.3b
938.M5.1	EMP compliance	N/A
938.M6.1	Final Project Design Plan	2017.938.M6.1
938.M7.1	Final Decommissioning Plan	N/A
938.M7.2	Final Decommissioning Plan	N/A
938.M7.3	Final Decommissioning Plan	N/A
S1_2.1	Project area 76,000ha	2017.S1_2.1
S1_2.2	Land managed as buffer 42,500ha	N/A
S1_2.3	Land for irrigable development 30,500ha	N/A
S1_2.4	Infrastructure area 3,000ha	N/A
S1_2.5	M2 Channel 690ha	N/A
S1_2.6	Wyndham Port 1ha	N/A
S1_2.7	Raw sugar 400,000tpa	N/A
S1_2.8	Molasses 160,000tpa	N/A
S1_2.9	Irrigation channels 160km	N/A
S1_2.10	Annual water requirements 740GL	2017.S1_2.10a
S1_2.10	Annual water requirements 740GL	2017.S1_2.10b
S1_2.11	Drains 153km	N/A
S1_2.12	Flood protection levees 142km	N/A
S1_2.13	Balancing storage dams 5.6GL	N/A
S1_2.14	Roads 161km	N/A
S1_2.15	Power lines 165km	N/A
S1_2.16	Wyndham Port raw sugar store 180,000t	N/A
S1_2.17	Wyndham Port molasses store 75,000t	N/A
EMP1	Assessed as complete for Goomig (current area) in previous audit	
EMP2	Induct personnel on soil erosion	2017.EMP2a; 2017.EMP2b
EMP3	Assessed as complete for Goomig (current area) in previous audit	
EMP4	Assessed as complete for Goomig (current area) in previous audit	
EMP5	Assessed as complete for Goomig (current area) in previous audit	
EMP6	Assessed as complete for Goomig (current area) in previous audit	
EMP7	Assessed as complete for Goomig (current area) in previous audit	
EMP8	Assessed as complete for Goomig (current area) in previous audit	
EMP9	Assessed as complete for Goomig (current area) in previous audit	
EMP10	Assessed as complete for Goomig (current area) in previous audit	
EMP11	Assessed as complete for Goomig (current area) in previous audit	
EMP12	Assessed as complete for Goomig (current area) in previous audit	
EMP13	Assessed as complete for Goomig (current area) in previous audit	
EMP14	Assessed as complete for Goomig (current area) in previous audit	
EMP15	Assessed as complete for Goomig (current area) in previous audit	
EMP16	Assessed as complete for Goomig (current area) in previous audit	
EMP17	Assessed as complete for Goomig (current area) in previous audit	
EMP18	Soil erosion inspection and repairs	2017.EMP18a and b
EMP19	Soil testing - EC	2017.EMP19a and b
EMP20	Soil testing - sodicity and pH	2017.EMP19a and b
EMP21	Assessed as complete for Goomig (current area) in previous audit	

EMP22	Chemical and hydrocarbon management induction	2017.EMP2
EMP23	Farm chemical storage	Site inspection and interview
EMP24	Hydrocarbon storage	KAI advised no change since previous audit
EMP25	Generators to be banded	Site inspection - generators observed as banded
EMP26	MSDS held on site	KAI advised no change since previous audit
EMP27	Fertiliser handling training	KAI advice
EMP28	Beyond the scope of audit	N/A
EMP29	Fuel spills	Site inspection and interview
EMP30	Chemical application register	2017.EMP30
EMP31	Tailwater retention capacity retained	Site inspection and interview
EMP32	ChemCert qualifications including aerial spraying	2017.EMP32 2017.EMP36a, b, c, d
EMP33	No application of chemicals to tracks	Site inspection and interview
EMP34	Chemical application register	2017.EMP30
EMP35	Chemical application register	2017.EMP30
EMP36	Aerial spraying contractor certification	2017.EMP36a, b, c, d
EMP37	Notify neighbours re chemicals	N/A
EMP38	Chemical washdown facilities	N/A - not on site
EMP39	Chemical blending	N/A - not on site
EMP40	Emergency response procedures	2017.EMP40
EMP41	DrumMuster	N/A - local government run
EMP42	Hydrocarbon storage inspections	Site inspection
EMP43	Buffer vegetation damage from spray drift	Site inspection
EMP44	Chemical spill inspections	KAI advice
EMP45	Example burning permits and applications	2017.EMP45a 2017.EMP45b 2017.EMP45c 2017.EMP45d 2017.EMP45e
EMP46	Assessed as complete for Goomig (current area) in previous audit	
EMP47	Notify residents re burning	N/A
EMP48	Assessed as complete for Goomig (current area) in previous audit	
EMP49	Assessed as complete for Goomig (current area) in previous audit	
EMP50	Assessed as complete for Goomig (current area) in previous audit	
EMP51	Assessed as complete for Goomig (current area) in previous audit	
EMP52	Assessed as complete for Goomig (current area) in previous audit	
EMP53	Assessed as complete for Goomig (current area) in previous audit	
EMP54	Weed surveys along permanent transects	2017.EMP54a 2017.EMP54b 2017.EMP54c 2017.EMP54d 2017.EMP54e
EMP55	Update extent of priority weeds	KAI advice
EMP56	Priority weed control program	2017.EMP56
EMP57	Assessed as complete for Goomig (current area) in previous audit	
EMP58	Assessed as complete for Goomig (current area) in previous audit	
EMP59	Assessed as complete for Goomig (current area) in previous audit	
EMP60	Manage topsoil per DAFWA requirements	N/A - No requirements exist
EMP61	Acrolein injections	Managed by Water Corporation
EMP62	Delineate clearing areas	2017.EMP62, site inspection and interview
EMP63	Control buffer access	Site inspection and interview
EMP64	Assessed as complete for Goomig (current area) in previous audit	
EMP65	Assessed as complete for Goomig (current area) in previous audit	
EMP66	Assessed as complete for Goomig (current area) in previous audit	
EMP67	Assessed as complete for Goomig (current area) in previous audit	
EMP68	External soil and fill	N/A in this audit period
EMP69	Assessed as complete for Goomig (current area) in previous audit	
EMP70	Assessed as complete for Goomig (current area) in previous audit	
EMP71	Waste management / pest animals	Site inspection
EMP72	Pest eradication program	Site inspection
EMP73	Assessed as complete for Goomig (current area) in previous audit	
EMP74	Stock removal	Site inspection
EMP75	Weed species identified in surveys	Refer to EMP 54
EMP76	Weed quantities in survey sites	Refer to EMP 54
EMP77	Weeds in farm lots	Site inspection
EMP78	Pest eradication program	Site inspection
EMP79	Assessed as complete for Goomig (current area) in previous audit	
EMP80	Assessed as complete for Goomig (current area) in previous audit	

EMP81	Assessed as complete for Goomig (current area) in previous audit	
EMP82	Erosion of watercourses	Refer to EMP 18
EMP83	Assessed as complete for Goomig (current area) in previous audit	
EMP84	Groundwater	2017.EMP84a, 2017.EMP84b, 2017.EMP84c
EMP85	Previous audit recommended deletion as unable to audit	
EMP86	On-farm bores	2017.EMP86
EMP87	Sampling parameters - groundwater	KAI advised no change since previous audit
EMP88	DWER bore licence	No licence - N/A
EMP89	Groundwater database	2017.EMP89
EMP90	Groundwater database	2017.EMP89
EMP91	Groundwater model update	N/A
EMP92	Review of irrigation conditions	N/A
EMP93	Adopt ANZECC trigger values	Previously found to be conformant. No change.
EMP94	Groundwater TBA	2017.EMP19a, 2017.EMP84a, 2017.EMP84b, 2017.EMP84c
EMP95	Groundwater TBA	2017.EMP19a, 2017.EMP84a, 2017.EMP84b, 2017.EMP84c
EMP96	Tailwater retention capacity retained	Site inspection - dams in situ and pumping/recycling system operational
EMP97	Tailwater retention capacity retained	Site inspection - dams in situ and pumping/recycling system operational
EMP98	Assessed as complete for Goomig (current area) in previous audit	
EMP99	Assessed as complete for Goomig (current area) in previous audit	
EMP100	Updated analyte list	2017.EMP100a, 2017.EMP100b
EMP101	Assessed as complete for Goomig (current area) in previous audit	
EMP102	Water quality monitoring at discharge point	2017.EMP102a, 2017.EMP102b
EMP103	Assessed as complete for Goomig (current area) in previous audit	
EMP104	Water flow monitoring	2017.EMP102a
EMP105	Adaptive stormwater/groundwater discharge program	KAI advice - 28 December 2017
EMP106	Assessed as complete for Goomig (current area) in previous audit	
EMP107	Refine dilution/discharge relationship	2017.938.M4.3a
EMP108	Refine flow trigger values for Keep	2017.938.M4.3a, 2017.EMP100b, 2017.EMP102b
EMP109	Telemetered flow monitoring	2017.EMP102a
EMP110	Assessed as complete for Goomig (current area) in previous audit	
EMP111	Biodiversity induction	2017.EMP2a, 2017.EMP2b
EMP112	Assessed as complete for Goomig (current area) in previous audit	
EMP113	Assessed as complete for Goomig (current area) in previous audit	
EMP114	Assessed as complete for Goomig (current area) in previous audit	
EMP115	Assessed as complete for Goomig (current area) in previous audit	
EMP116	Assessed as complete for Goomig (current area) in previous audit	
EMP117	Native animals on site	Site inspections
EMP118	Wildlife hotline	KAI advice - 28 December 2017
EMP119	Clearing compliance	2017.EMP62, site inspection and interview
EMP120	Clearing compliance	2017.EMP62, site inspection and interview
EMP121	Control buffer access	Site inspections
EMP122	Buffer access signage	Site inspections
EMP123	Induct personnel on environmental matters	2017.EMP2a and 2017.EMP2b
EMP124	Assessed as complete for Goomig (current area) in previous audit	
EMP125	Stabilise and revegetate	Site inspections
EMP126	Stabilise and revegetate	Not required in this audit period
EMP127	Buffer revegetation	Site inspections
EMP128	Assessed as complete for Goomig (current area) in previous audit	
EMP129	Assessed as complete for Goomig (current area) in previous audit	
EMP130	Assessed as complete for Goomig (current area) in previous audit	
EMP131	Buffer fencing and stock exclusion	Site inspections
EMP132	Fire Management Sub-plan	Refer to EMP 45
EMP133	Buffer condition assessment	2017.EMP133a
EMP134	Assessed as complete for Goomig (current area) in previous audit	
EMP135	Survey rehab reference sites	2017.EMP54a 2017.EMP54b 2017.EMP54c
EMP136	Assessed as complete for Goomig (current area) in previous audit	
EMP137	Assessed as complete for Goomig (current area) in previous audit	
EMP138	Assessed as complete for Goomig (current area) in previous audit	
EMP139	Not required	NR

EMP140	Not required	NR
EMP141	Not required	NR
EMP142	Hygiene management	2017.EMP62, site inspection and interview
EMP143	Control stock	Refer to EMP 72
EMP144	New rehabilitation	NR
EMP145	New rehabilitation	NR
EMP146	New rehabilitation	NR
EMP147	Assessed as complete for Goomig (current area) in previous audit	
EMP148	New rehabilitation	NR
EMP149	New rehabilitation	NR
EMP150	Assessed as complete for Goomig (current area) in previous audit	
EMP151	New rehabilitation	NR
EMP152	Assessed as complete for Goomig (current area) in previous audit	
EMP153	New rehabilitation	NR
EMP154	New rehabilitation	NR
EMP155	Assessed as complete for Goomig (current area) in previous audit	
EMP156	New rehabilitation	NR
EMP157	New rehabilitation	NR
EMP158	Topsoil importation	NR
EMP159	Rehabilitation fencing	NR
EMP160	Borrow pits	Site inspections
EMP161	Topsoil importation	NR
EMP162	Rehabilitation monitoring	2017.EMP54a 2017.EMP54b 2017.EMP54c
EMP163	Rehabilitation monitoring	2017.EMP54a 2017.EMP54b 2017.EMP54c
EMP164	Rehabilitation monitoring	2017.EMP54a 2017.EMP54b 2017.EMP54c
EMP165	Rehabilitation monitoring	2017.EMP54a 2017.EMP54b 2017.EMP54c
EMP166	Induction package - Aboriginal heritage	2017.EMP2b
EMP167	Assessed as complete for Goomig (current area) in previous audit	
EMP168	Assessed as complete for Goomig (current area) in previous audit	
EMP169	Assessed as complete for Goomig (current area) in previous audit	
EMP170	Heritage site detection	KAI advice - 28 December 2017
EMP171	Heritage monitors on site	KAI advice - 28 December 2017
EMP172	Heritage response	NR
EMP173	Assessed as complete for Goomig (current area) in previous audit	
EMP174	Assessed as complete for Goomig (current area) in previous audit	
EMP175	MG Corporation meetings	KAI advice - 28 December 2017
EMP176	Assessed as complete for Goomig (current area) in previous audit	
Other	Incident reporting	2017.Other.1

PART B – Evidence folder inclusions

	2017.S1_2.10b KAI surface water 2017 Season Report
	2017.S1_2.10a KAI water use correspondence from Ord Irrigation - Goomig
	2017.S1_2.1 Lot 13 uncleared area 10.85ha
	2017.Other.1 Ord Stage 1 water flow report to IRG.pdf
	2017.EMP133a 2017-05-03 Buffer E of lot 14 tailwater dam-c.JPG
	2017.EMP102b IRG Record of Meeting - 24 April 2018.pdf
	2017.EMP102a Surface water monitoring Season Report 2017.pdf
	2017.EMP100b IRG Record of Meeting - 9 January 2018
	2017.EMP100a KAI Farm Chemical Risk Assessment
	2017.EMP94 Groundwater Monitoring - IRG letter to Minister - Final Signed.pdf
	2017.EMP89 Goomig Knox Groundwater Database to end 2016.pdf
	2017.EMP86 Goomig Farm Management Units and Bores 2016.pdf
	2017.EMP84c Bore monitoring dry season 2017 ChemCentre results.pdf
	2017.EMP84b Bore monitoring late 2017.pdf
	2017.EMP84a Bore monitoring late 2017.pdf
	2017.EMP62 2017-05-08 inspection of 2016 accidental clearing between lots 5 and 18
	2017.EMP56 Sprayed parkinsonia - buffer near lot 3.jpg
	2017.EMP54e 2017-05-03 Buffer rehabilitation inspection DW1 track to lot 13b
	2017.EMP54d 2017-05-03 Buffer rehabilitation inspection DW1 track to lot 13a
	2017.EMP54c 2017-05-03 Buffer rehabilitation inspection DW1 track to lot 13c
	2017.EMP54b 2017-05-03 Parkinsonia east of lot 13a.JPG
	2017.EMP54a 2017-05-03 Parkinsonia east of lot 13b.JPG
	2017.EMP45d KAI - Fire permit application August 2017.pdf
	2017.EMP45c KAI - Fire permit application November 2017 .pdf
	2017.EMP45b KAI - Fire permit August 2017.pdf
	2017.EMP45a KAI - Fire permit November 2017.pdf
	2017.EMP45.e KAI - Fire permit June 2017.pdf
	2017.EMP40 KAI Emergency response procedure
	2017.EMP36d Lone Eagle WA Pty Ltd Air Operators Certificate CASA.TAAOC.0272-12.pdf
	2017.EMP36c Alistair Farnhill Pilot Chemical Rating.pdf
	2017.EMP36b Lance Conley Pilot Chemical Rating.pdf
	2017.EMP36 Farm chemical spraying accreditation - Lone Eagle.pdf
	2017.EMP32 John Colt Dwyer Chem Handling Accreditation.pdf
	2017.EMP30 KAI Goomig Chemical Usage Report 2017
	2017.EMP19b CSBP soil test results.pdf
	2017.EMP19a KAI Soil sample request form CSBP dated 20171229.pdf
	2017.EMP18b Lot 6 levee bank repairs.jpg
	2017.EMP18a Lot 6 levee bank repairs.jpg
	2017.EMP2b KAI Induction 2017.pdf
	2017.EMP.133r 2017-05-03 Buffer north of lot 19 11WP52D bore - b.JPG
	2017.EMP.133q 2017-05-03 Buffer north of lot 19 11WP52D bore - c.JPG
	2017.EMP.133p 2017-05-03 Buffer north of lot 19 11WP52D bore - a.JPG
	2017.EMP.133o 2017-05-03 Buffer at bore 10WP44a.JPG
	2017.EMP.133n 2017-05-03 Buffer at bore 10WP44b.JPG
	2017.EMP.133m 2017-05-03 Buffer at bore 10WP44c.JPG
	2017.EMP.133l 2017-05-03 Buffer at bore 10WP43c.JPG
	2017.EMP.133k 2017-05-03 Buffer at bore 10WP43b.JPG
	2017.EMP.133j 2017-05-03 Buffer at bore 10WP43a.JPG
	2017.EMP.133i 2017-05-03 Buffer at bore 11WP51D-a.JPG
	2017.EMP.133h 2017-05-03 Buffer at bore 11WP51D-b.JPG
	2017.EMP.133g 2017-05-03 Buffer at bore 11WP51D-c.JPG
	2017.EMP.133f 2017-05-03 Buffer at bore WP9b.JPG
	2017.EMP.133e 2017-05-03 Buffer at bore WP9c.JPG
	2017.EMP.133d 2017-05-03 Buffer at bore WP9a.JPG
	2017.EMP.133c 2017-05-03 Buffer E of lot 14 tailwater dam-a.JPG
	2017.EMP.133b 2017-05-03 Buffer E of lot 14 tailwater dam-b.JPG
	2017.938.M6.1 Revised Knox Creek Plain Final Project Design Plan
	2017.938.M4.5 IRG letter to Commonwealth Minister - Trigger Exceedances 2017.pdf
	2017.938.M4.3b Ord Compliance Assessment Report submitted 2017-05-24
	2017.938.M4.3a Final 2016 Compliance Assessment Report Statement 938 EMP.pdf
	2017.938.M2.1b Notice of Change of Nominated Proponent.pdf
	2017.938.M2.1a Proponency Transfer Request to EPA.pdf