

Statement 938

Ord River Irrigation Area Stage 2 M2 Supply Channel

Compliance Assessment Report 2019

1 January to 31 December 2019

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 2020
REV 0



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Document control

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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
KBC	Kimberley Boab Consulting 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

Mr Wayne Paul from Kimberley Agricultural Investment Pty Ltd was interviewed informally on multiple occasions, and formally during a site inspection on 19 July 2019, with additional site observations on 12 October 2019. Follow-up discussions to obtain further evidence took place in early 2020.

Ms Renee Zuks and Ms Jo-Anne Ellis from DPIRD provided evidence and responses to queries on behalf of the proponent. A site inspection with DPIRD occurred on 29 November 2019. Follow-up observations were recorded on 10 December 2019, with additional liaison with DPIRD in early 2020 to obtain additional evidence where required.

EXECUTIVE SUMMARY AND KEY RECOMMENDATIONS

This compliance assessment of progress with the implementation of Ministerial Statement 938 for the period 1/1/2019 to 31/12/2019 was undertaken on behalf of the Proponent, the Western Australian Department of Primary Industries and Regional Development. It assesses and makes recommendations on compliance with the delivery of the conditions applied to the development of the *Ord River Irrigation Area Stage 2 (M2 Supply Channel)* as stipulated in Ministerial Statement 938 issued by the Minister for the Environment and administered by the Department of Water and Environmental Regulation.

Previous audits (KBC 2018; Strategen 2015, 2016, 2017) have recommended changes to a number of actions in the Goomig Environmental Management Plan (EMP). These recommendations are retained. A full review of the EMP to meet contemporary, outcomes-based requirements of the EPA, commenced in 2017 but is not yet complete. Under the associated Commonwealth approval (EPBC 2010/5491), review of the stormwater monitoring, management and modelling requirements, and of groundwater monitoring, is being undertaken with advice from the Independent Review Group. This is directly informing the EMP revision.

The auditor identified that of 188 audit items assessed for the associated EMP (required to be implemented under condition 5-1), eleven (11) or approximately six per cent (6%), of management actions were potentially non-conformant in 2019. As with previous audits, the majority of the PNC actions relate to an aspect of formal monitoring that is currently not being undertaken, or is being partially undertaken, as prescribed in the EMP.

Incidents were documented relating to (a) the flow of Ord Stage 1 water to the Keep River (compliance assessment for which is outside of the parameters of the Goomig / Weaber Plain approvals, unrelated to Goomig but nonetheless reported to DWER); (b) channel water flow due to a gate malfunction in March 2019 (not reported); and (c) the detection of farm chemicals in the Keep River in late November / early December 2019 (not reported). This review did not find that these incidents were outside of compliance parameters indicated in the current EMP. The Proponent advised that the revised EMP (in preparation) will provide clearer triggers and compliance assessment criteria and incident reporting requirements on matters relating to water discharge, via the revised Stormwater and Groundwater Discharge Management Plan which has been supported by the IRG.

The incident reports highlight that a key risk arising from the Goomig development relates to the downstream impacts of off-farm flow to the Keep River. It is noted that the Goomig farm area represents approximately one per cent (1%) of the Keep River catchment area, contributing one and a half per cent (1.5%) of catchment inflow under unmodified conditions. Other land and river users impacting on the Keep River include Ord Stage 1 and recreational fishers. The recent upgrade of the Legune/Keep River Road will indirectly contribute to the pressures on the Keep River habitat through increased recreational fishing pressure. The extent to which the Goomig proponent is perceived to be singularly responsible for the health of the river, through the monitoring and outcomes requirements of the relevant management plans, requires further consideration.

The auditor's overall assessment is that there are clear indications of the Proponent clarifying and revising the operational management requirements to meet the objectives of Statement 938. This is being undertaken through the comparison of baseline and post-baseline monitoring and the revision of Statement 938 and EPBC 2010/5491 management plans. Achieving and maintaining compliance with a small number of monitoring actions remains problematic. It is expected that this will be resolved with the EMP and EPBC Management Plan revisions to outcomes-based rather than prescriptive requirements.

Future compliance assessments will need to pay close attention to the operation and utility of the development discharge monitoring at the DW1 Gauging Station, once functionality is restored in 2020. With clearing of the Knox Creek Plain commencing in 2020, the Knox actions will come into play in the next annual Compliance Assessment Report.

It is further recommended that with the introduction of additional land users (MG Corporation and their partner Cubbie Farms) in 2020, that the monitoring obligations associated with Lots 15 and 16 are clearly articulated and met. This particularly pertains to tailwater monitoring and management, given the downstream (Keep River) risk associated with that activity.

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 2019 to 31 December 2019. 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. The 30,500ha includes the M2 area in the Northern Territory (NT), commonly referred to as Ord Stage 3. This CAR does not address the NT portion of the M2 area. M2 irrigation development has not yet commenced in the NT.

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 (then) 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 current guidelines for EMPs (EPA, 2020) and in part to address the issues raised by previous auditors regarding the existing EMP. This process is not yet complete, as the EMP revision cannot be finalised until management plans under the associated EPBC approval 2010/5491 are completed and endorsed by the Commonwealth Department of Agriculture, Water and the Environment (DAWE). The reason for this is that the management actions and monitoring requirements of the EPBC 2010/5491 management plans will transfer directly into the new EMP. The proponent is working with the DAWE and the Independent Review Group (IRG) established under EPBC 2010/5491 to revise the EPBC management plans.

The current EMP 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. As such, this CAR relates to the approved 2013 EMP.

A Compliance Assessment Plan (CAP) prepared by Strategen (2013) in relation to the Project was approved by the OEPA in late 2013. The CAP provides the basis for the methodology and structure of this report. The CAR will be reviewed when the EMP is fully revised and any recommended changes will be submitted to DWER for approval.

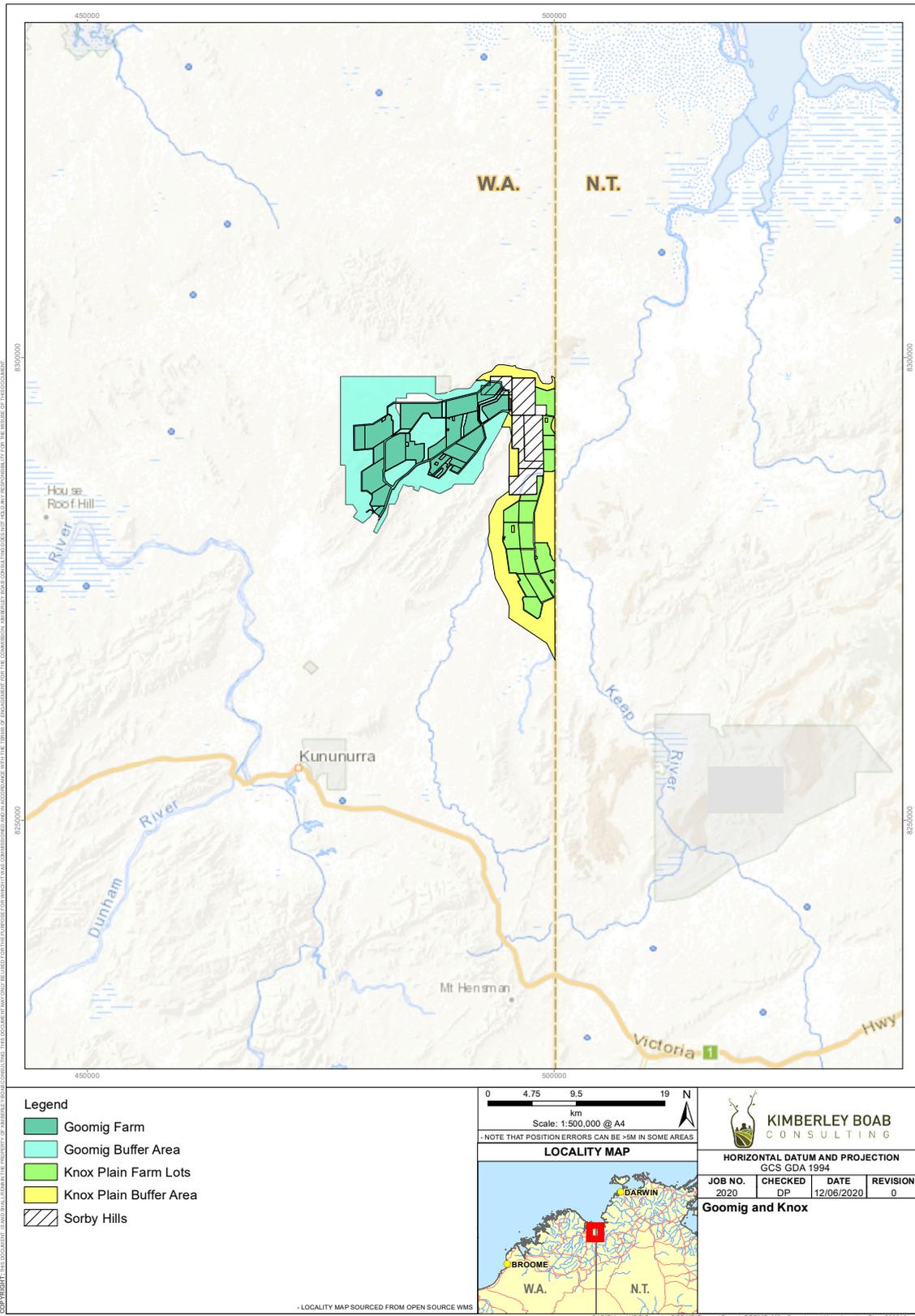
1.1 Project background

DPIRD, on behalf of the Minister for Regional Development, 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. The development of the Knox Creek Plain commenced in May 2020, and will be reported in the 2020 CAR.

Figure 1 - M2 area (Gomigig and Knox) location plan



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 M2 area:

Table 1 - Project details and status of WA EP Act (1986) approvals for the M2 area

Descriptor / Requirement	Detail
Proponent	Minister for Regional Development
Approval – EP Act 1986	Ministerial Statement 938, issued 12 June 2013
Approved Final Project Design Plan (FPDP) – 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. This CAR relates to the Knox FPDP approved in 2017. Revision C, dated June 2019, was approved in May 2020.
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 Holder (Proponent)	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 Jobs, Training, Science and Innovation	'Not a controlled action' 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 Statement 938 and the approvals listed in Table 2 and Statement 938 is provided in the 2016 audit Statement 938 CAR (Strategen, 2017).

1.3 Proponent

The Proponent is the Western Australian Minister for 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 Water and Environmental Management Instrument Agreement (WEMIA) has been executed by MG Corporation (as owners of Lots 15, 16 and the buffer) and was awaiting execution by KAI at the time of preparation of this CAR. The Special Purpose Vehicle (SPV), Goomig Land and Water Pty Ltd, has been established to manage Goomig environmental obligations including obligations under Statement 938, with the company constitution and shareholders agreement agreed and awaiting endorsement from KAI's management¹.

The planned transfer of proponentcy to KAI will occur when the WEMIA and SPV are finalised and approved by the WA Government.

2.1.1 Weaber Plain – Goomig

During the 2019 season, KAI continued to develop and/or farm lands that had undergone the initial clearing stages in previous years. Lots 19 and 20 were sub-leased to external entities. MG Corporation, in partnership with an external entity, continued the development of Lot 16, on which farming commenced immediately following this audit period.

KAI applied 34.24GL of irrigation water to its farm lots, from a total volume of 44GL released to the Goomig farm area through the Ord irrigation scheme, with an additional 2.01GL used to dilute Ord Stage 1 tailwater, via release from the M2 channel (KAI 2020).

DPIRD reported the release of Ord Stage 1 irrigation tailwater to the Keep River between July 2019 and October 2019. KAI reported an accidental flow of M2 channel water in late March 2019, following a gate malfunction. These incidents are discussed further in the audit compliance tables and overall assessment.

Figure 2 provides end-of-reporting period satellite imagery for the Goomig-Knox area.

¹ Pers. comm from Jo-Anne Ellis, DPIRD, 11 June 2020

Figure 2 – Goomig-Knox Satellite Image - 21 December 2019

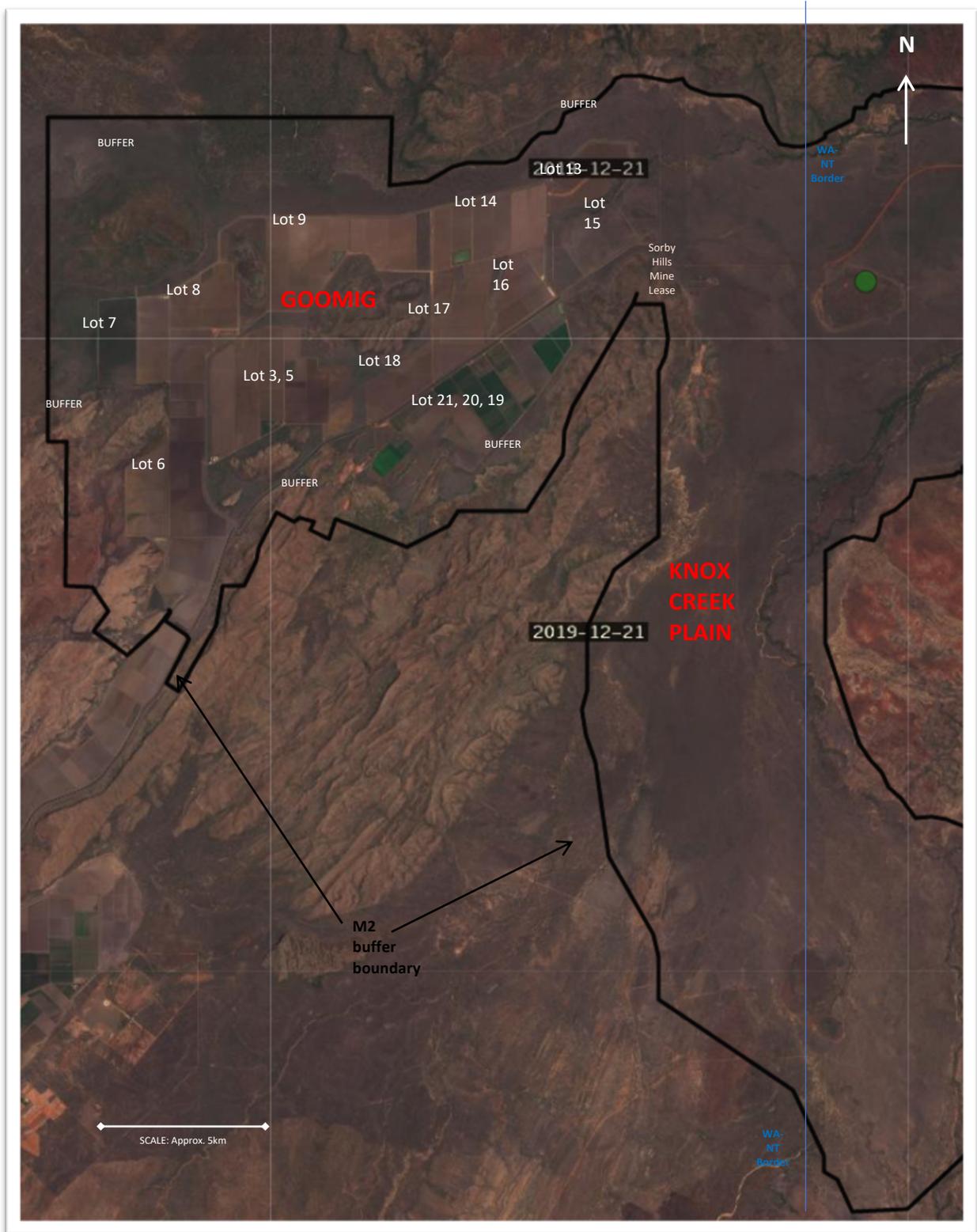


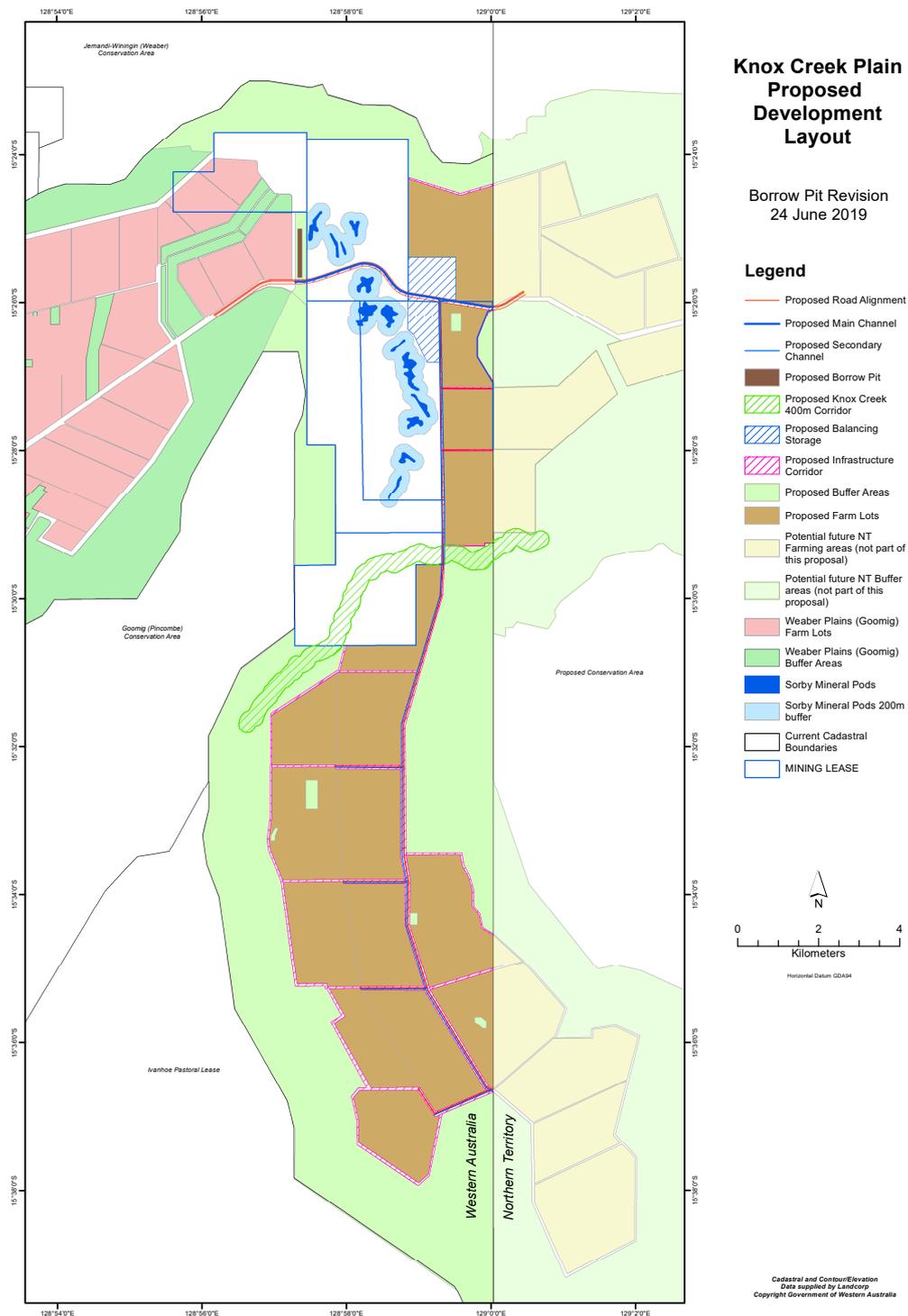
Image Source: Sentinel 2; Satamap, 21 December 2019

2.1.2 Knox Creek Plain

The development of the Knox Creek Plain did not commence within the 2019 audit period. The use of the land remained as pastoral grazing at 31 December 2019.

In order to accommodate a borrow pit proposed east of the Goomig buffer, a revised Final Project Design Plan (FPDP) for Knox was submitted to DWER for approval. This follows a revision to the Knox FPDP in 2017 which accommodated a road realignment through the Sorby Hills mining lease area. The 2019 *Knox Creek Plain FPDP* (KBC, 2019a) was approved by DWER in May 2020 (see evidence items 2019.938.M6.1a and 2019.938.M6.1b).

Figure 3 - Knox Creek Plain Final Project Design Plan Development Layout (2019 revision)



2.2 Changes to approvals and management arrangements

No changes to approvals or management arrangements (other than the Knox FPDP revision) occurred during the compliance period. A review of the EMP continues in line with contemporary EPA/DWER requirements, informed by the outcomes of the current and previous compliance assessments and the deliberations and recommendations of IRG established under EPBC 2010/5491.

2.3 Compliance Assessment Plan requirements

Condition 4 of Statement 938 stipulates requirements as listed in Table 3:

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).
- *Post Assessment Guideline for Preparing a Compliance Assessment Report* (OEPA 2012d).

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 DWER (EPA Services). 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 2019 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 compliance review and reporting specifications).

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), is in preparation. This current compliance assessment informs the EMP revision process. The revised EMP, when completed and approved, will address inconsistencies, duplication and other items of concern as addressed in previous audits (KBC 2018; 2019b; and Strategen 2017; 2016; 2015) which have been identified post-construction.

Those items deemed to be *completed* during previous compliance periods were not reassessed during this audit.

3.1.2 Audit period

This report addresses the 12- month period from 1 January 2019 to 31 December 2019.

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, KBC 2018; 2019b; 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 addresses the following elements:

- Audit code: Ministerial Statement reference number.
- Subject: The environmental theme/issue.
- Action: What the proponent must do.
- How: The manner in which the requirements of an audit element should be achieved.
- Evidence: Information or data collected to verify compliance, i.e. report/letter/site inspection requirements.
- Phase: Project phase applicable to audit element.
- Timeframe: Specific timing for achieving the requirements of an audit element.
- Status: Notes about the fulfilment of compliance using compliance status terms.
- 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, or has previously been assessed as completed, the item has been marked Not Applicable (NA).

It is noted that the term ‘EMP’ refers to an Environmental Management *Plan* (EPA, 2020) under current guidelines, however Statement 938 requires an Environmental Management *Program*. The references to the EMP are intended to meet the requirements of both documents. The preferred terminology is *Plan*.

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 2019 Compliance Assessment
One or more annual site inspections	Formal site inspections were conducted with KAI on 19 July 2019 and DPIRD on 28 November 2019. Regular site visits and informal compliance review checks occurred throughout the 2019 operating season. These regular inspections included 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 on 19 July 2019. Follow-up discussions and requests for additional evidence occurred in late 2019 and early 2020 as this CAR was being prepared. Ongoing compliance discussions with DPIRD staff throughout 2019 and early 2020 further informed this review of compliance with Statement 938 and the EMP.
Compilation, review and assessment of documentary evidence	July 2019 to June 2020. This included follow-up with DPIRD and KAI staff regarding 2019 practices and compliance. Sampling of evidence was used where appropriate. Records have been compiled, assessed and referenced in the review tables (Attachments 2 and 3).

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 Executive Director of the EPA Services team makes the final determination of compliance, it is necessary to update this field each reporting period, as the project progresses. The (former) 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 lists the assessment terminology utilised in this report. Colour coding has been applied to the assessment tables contained in the appendices, to facilitate ease of identification of the status of each action and requirement.

Table 5 - Compliance assessment terminology

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

Source: EPA Statement of Compliance – Post-Assessment Form 2

4.0 Audit findings

4.1 Compliance with conditions

The results of the audit of Ministerial Statement 938 are shown in Attachment 2. Fifteen (15) items were audited. A summary of compliance findings in relation to Schedule 1 of the Statement is provided in Attachment 3.

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 Attachment 3. No potential non-compliances with Schedule 1 were identified.

4.1.2 Compliance with Environmental Management Program actions

The EMP compliance assessment is provided in Attachment 4.

As noted in previous CARs, based on feedback from DPIRD and KAI during the audit process, 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.

These issues are currently being addressed in the revision of the EMP, which will meet current guidelines (EPA, 2020).

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

Table 6 – Potential EMP non-conformances summary (including response to previous PNCs)

ITEM	ACTION	AUDIT FINDING 2018	PROPONENT RESPONSE / MITIGATION in 2019	AUDIT FINDING 2019
EMP 19	Surface and subsoil electrical conductivity within the project area, with a specific focus on areas with Aquitaine clay soils, including: <ul style="list-style-type: none"> at least one sample from each lot a representative spread of sites throughout the Buffer Area. 	Compliant/conformant	N/A	Soil testing was not undertaken on Goomig in 2019. KAI has advised that soil testing will be undertaken in June 2020 to remedy this. KAI advised that this was not undertaken late in the 2019 season (as usually occurs) due to Manager illness.
EMP 20	Surface and subsoil ESP and pH within the project area, with a specific focus on areas with Aquitaine clay soils, including: <ul style="list-style-type: none"> at least one sample from each lot a representative spread of sites throughout the Buffer Area. 	The auditor notes that while soil samples were taken across farm and buffer sites, <i>interpretation of soil sodicity data and any resultant implications was not demonstrated</i> . It is recommended that the Proponent engages with suitable soil science expertise to undertake a review of soil sampling data, to assess the sodicity risk in light of the targets included with this action, and to determine whether the established triggers, which are based on wheatbelt conditions, are appropriate in the Goomig context.	The 2018 finding was noted and was intended to be implemented but unforeseen circumstances prevented this occurring.	EMP 20 remains potentially non-compliant. Soil samples were not taken in 2019. (Note: KAI advised that the manager responsible for ensuring soil sampling occurred suffered serious health issues in November/December 2019, at the time when soil samples would normally be taken).
EMP 32	Commercial pesticide and herbicide spraying will be undertaken only by operators with the appropriate level of ChemCert accreditation.	KAI advised that pesticide and herbicide spraying is undertaken only by operators with the appropriate level of ChemCert accreditation. Copies of ChemCert qualifications for current staff were not sighted by the auditor.	N/A	PNC. The auditor was not provided with copies of relevant chemical spraying accreditation documentation. (KAI advised that pesticide and herbicide spraying is undertaken only by operators with the appropriate level of ChemCert accreditation. Copies of ChemCert qualifications for current staff were not sighted by the auditor. It is recommended that KAI retains updated chemical application certification).
EMP 35	Maintain a register of all aerial spraying operations.	Compliant/conformant	N/A	PNC. The auditor did not observe the register of all aerial spraying operations.
EMP 36	Use accredited operators (e.g. by operators and pilots accredited under the Aerial Agricultural Association of Australia (AAAA) "Spraysafe" program)	Compliant/conformant	N/A	PNC. The auditor did not observe the pilot chemical spraying accreditation documentation.

ITEM	ACTION	AUDIT FINDING 2018	PROPONENT RESPONSE / MITIGATION in 2019	AUDIT FINDING 2019
EMP 76	Density/ cover/ distribution of weed species in the permanent weed survey transects and common use infrastructure areas.	<p>No new priority areas were observed during site inspections.</p> <p>As with previous audit findings, density / cover / distribution of weed species in the permanent weed survey transects is not explicitly measured. <i>As such, the auditor has assessed this item as potentially non-conformant.</i> 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.</p> <p>Previous audits recommended this action be revised.</p>	Ongoing physical and chemical management of weeds in the buffer and common use areas.	<p>No new priority areas were observed during site inspections.</p> <p>The auditor has re-classified this action as conformant in 2019, due to the evidence of ongoing physical and chemical management of weeds in the buffer and common use areas.</p> <p>Previous audits recommended this action be revised.</p>
EMP 84	Undertake monitoring of the parameters determined under Item 2 in bores established under EMP 83.	<p>This PNC carries over from previous audits, which found the prescribed monitoring requirements have been superseded following the recommendations from the baseline groundwater studies conducted on the Weaber Plain, and KAI is following the monitoring regime recommended in the baseline analysis report. As the action has not been amended to reflect the outcomes of the baseline studies, it must remain a PNC, however the groundwater database indicates the recommended monitoring has occurred.</p> <p>Data from high intensity bores (logger data) was being analysed by DPIRD at the time of preparation of this audit report.</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]. <i>It is this element of the action that indicates the PNC.</i></p> <p>The Strategen 2015 audit 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>	<p>As recommended in a previous audit, the proponent undertook a review of groundwater monitoring to date, which was presented to the IRG in February 2020 (see 2019.EMP84 and 2019.EMP84b). Specific changes to the groundwater monitoring regime were made as follows:</p> <ol style="list-style-type: none"> 1) Field parameters at all high intensity sites are recorded annually in late September each year. Field parameters at all low intensity sites are recorded triennially in late September. 2) Selective laboratory analysis undertaken annually for high intensity bores and triennially for low intensity bores in late September. 3) Comprehensive laboratory analysis undertaken triennially for high intensity bores in late September. <p>This recommended regime was endorsed by the IRG at its February 2020 meeting. The proponent advised it is incorporating the changes into the revised EMP and a</p>	This action has been classified as conformant in 2019 due to the groundwater monitoring review undertaken by DPIRD, and the subsequent IRG endorsement of the findings and recommended changes.

ITEM	ACTION	AUDIT FINDING 2018	PROONENT RESPONSE / MITIGATION in 2019	AUDIT FINDING 2019
			<p>revised Groundwater Management Plan to be submitted for approval under EPBC 2010/5491.</p> <p>KAI undertook monitoring of bores in July and October 2019. Datalogger results from 2011-2019 are contained in the attached evidence and have informed IRG decision-making.</p>	
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 EPA Services, to ensure the intent of the groundwater actions, the monitoring regime and corrective actions are satisfactory. It is noted that both an EMP review and review of groundwater monitoring data are in progress. The previous audit noted that evidence item 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. A response from the Minister to this letter had not been received by the Proponent at the time of this audit.	<p>DPIRD reviewed groundwater monitoring data (2019.EMP84a) in 2019. This was considered by the IRG in February 2020. Findings and recommended changes have been endorsed by the IRG.</p> <p>2019.EMP89c-g datalogger reports indicate sub-area groundwater movement since 2011.</p>	<p>This action has been classified as conformant in 2019 due to the groundwater monitoring review undertaken by DPIRD, and the subsequent IRG endorsement of the findings and recommended changes.</p> <p>Groundwater level triggers are clear within the Groundwater Management Plan. Site-specific water quality triggers are less clear.</p> <p>The 2019 review report found that groundwater levels have risen relative to reference bores, but consistent with that forecasted in initial, pre-development modelling.</p> <p>The review assessed groundwater level and chemistry trends but didn't assess against trigger criteria <i>per se</i>. The Proponent advised they will address the triggers in the updated EMP to ensure they are simple and clear.</p>

ITEM	ACTION	AUDIT FINDING 2018	PROPONENT RESPONSE / MITIGATION in 2019	AUDIT FINDING 2019
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.	<p>The Proponent advised that a full analysis of groundwater monitoring undertaken in recent years was being conducted by its DPIRD hydrologists during 2019. The analysis will address trends across the Weaber Plain. This is also expected to result in recommendations for changes in the monitoring regime.</p> <p>Previous auditors recommended this action is revised to satisfaction of OEPA (EPA Services). This current audit similarly concludes that a full review of the EPBC <i>Groundwater Monitoring Plan</i> 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.</p> <p>The revised EMP is expected to address this issue and will be informed by the DPIRD groundwater review.</p>	DPIRD reviewed groundwater monitoring data (2019.EMP84a) in 2019. This was considered by the IRG in February 2020. Findings and recommended changes have been endorsed by the IRG.	This action has been classified as conformant in 2019 due to the groundwater monitoring review undertaken by DPIRD, and the subsequent IRG endorsement of the findings and recommended changes.
EMP 109	Telemetered flow monitoring at development gauge, existing gauging stations along Border Creek and the Keep River and in groundwater discharge pipe.	The DW1GS remains poorly functioning. The Proponent is investigating options for integrating the DW1GS with the Department of Water and Environmental Regulation's standard river gauging station monitoring system. The IRG has identified DW1GS functioning as a priority. This item has been rated a Potential Non-Conformance (PNC) as the functionality of the DW1GS and its ability to provide data in real time (via remote telecommunications) has not been resolved.	The DW1GS remained poorly functioning in 2019 however was undergoing full operational review at the time of preparation of this CAR, with support of the IRG.	This action remained a PNC, noting that a fully functionality review was being undertaken in early 2020, with repairs and upgrades scheduled pre-2020-21 wet season. The auditor notes significant progress towards updating the monitoring and management regimes associated with the discharge management plan, per EMP100 through to EMP108.
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 through routine buffer inspections during bore monitoring rounds at the beginning and end of each dry season. Photographic evidence samples (2018.EMP.133a through to 2018.EMP.133ar) showing no decline in vegetation condition near tracks and around bores. Previous audits have suggested amending this action. This will be undertaken in the EMP revision.	The intent of the action is being met through routine buffer inspections during bore monitoring rounds at the beginning and end of each dry season. Observations and photographic records show no decline in vegetation condition near tracks and around bores.	The PNC is retained from previous audits as the Keighery scale is not applied and vegetation condition mapping is not routinely updated. Previous audits have suggested amending this action.
EMP 135	Survey reference sites identified in EMP 134 to determine indicator	KAI advised that monitoring of rehabilitation areas is now undertaken consistent with revised buffer monitoring,	Reference site surveys for comparison to rehabilitated areas are	PNC retained from previous audits. As post-infrastructure rehabilitation occurred in 2012, it is

ITEM	ACTION	AUDIT FINDING 2018	PROPONENT RESPONSE / MITIGATION in 2019	AUDIT FINDING 2019
	species, density of native species, % cover of native species, native species richness and % weed cover as outlined in the monitoring procedures.	whereby condition is assessed and weed presence and any inconsistency with adjacent land is noted. This occurs bi-annually, during groundwater monitoring rounds. Reference site surveys are not being undertaken. KAI also noted that it did not undertake the rehabilitation in the buffer or infrastructure areas. These activities were completed by Leighton Contractors or others for LandCorp at the completion of construction (~2012-14). Photographic records of rehabilitation site progress are retained by KAI.	not undertaken. Neither DPIRD nor KAI undertook the rehabilitation in the buffer or infrastructure areas. These activities were completed by Leighton Contractors or others for LandCorp at the completion of construction (~2012-14).	recommended that the need for rehabilitation site surveys be reconsidered and a time limit for post-rehabilitation monitoring be applied.
EMP 162	Native species richness, density and % cover within rehabilitation sites as outlined in the monitoring procedures.	Refer to EMP 135.	Refer to EMP 135.	Refer to EMP 135.
EMP 163	Indicator species in rehabilitation sites.	Refer to EMP 135.	Refer to EMP 135.	Refer to EMP 135.
EMP 164	Exotic species richness and % cover within rehabilitation sites as outlined in the monitoring procedures.	Refer to EMP 135.	Refer to EMP 135.	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.	Farm sales package assessed as completed in a previous audit period. The current KAI induction process does not explicitly include Aboriginal Heritage obligations.	Aboriginal heritage discussion is now included in KAI's induction processes.	The auditor has assessed that the action has been met through KAI's induction processes.

In relation to the audit of 2019 management of compliance with Statement 938 and the associated EMP, the potential non-compliances listed in Table 6 can be aggregated as follows in Table 7:

Table 7 – PNC aggregation and recommendations

EPA Factor	2018 PNCs	Auditor comment 2018	2019 PNCs	Auditor comment 2019
Inland waters (surface water)	EMP109	<p>The proponent advised that a review of the Surfacewater and Groundwater Discharge Management Plan (SGDMP) is scheduled for 2019, under guidance from the Independent Review Group established under EPNC 3010/5491. This will directly relate to and inform the revision of the EMP under Statement 938, and will address the surface water management, monitoring requirements and trigger-related issues identified in EMP</p> <p>The auditor recommends that the Proponent ensure that remote telecommunications access to the DW1GS is restored to full functionality as a matter of urgency, given the importance of this infrastructure in monitoring and compliance with the EMP (and related EPBC conditions). The IRG has indicated this is functionality is essential for to ensure appropriate risk management and response mechanisms are in place.</p>	EMP109	<p>This action remained a PNC, noting that a fully functionality review was being undertaken in early 2020, with repairs and upgrades scheduled pre-2020-21 wet season.</p> <p>The auditor notes significant progress towards updating the monitoring and management regimes associated with the discharge management plan, per EMP100 through to EMP108.</p>
Inland waters (groundwater)	EMP84 EMP94 EMP95	The proponent has scheduled a review of all groundwater data to date. This review is being undertaken in 2019, and will inform revisions to the EPBC Groundwater Management Plan (GMP), and subsequently inform the EMP revision. The EMP revision cannot be completed until this review is complete.		Due to the review of groundwater data and monitoring, these actions were considered conformant in 2019.
Flora and vegetation	EMP76 EMP133 EMP135 EMP162 EMP163 EMP164	The auditor recommends that the EMP revision explicitly addresses weed and vegetation management in a manner appropriate to the scale, circumstance, environmental risk and condition of the buffer vegetation within the Ord Stage II area.	EMP133 EMP135 EMP162 EMP163 EMP164	Rehabilitation and buffer monitoring processes remained PNC in 2019. A review of buffer and rehabilitation monitoring requirements will be undertaken through the revised EMP process.
Terrestrial Environmental Quality	EMP20	While soil monitoring is occurring as required, it is recommended that soil scientist analysis be undertaken to assess whether irrigation is impacting soil quality.	EMP19 EMP20	EMP19 and EMP20 were classified PNC as soil monitoring was not undertaken (with mitigating circumstances) following the 2019 cropping season.
People	EMP166	As with the previous finding, the auditor recommends that inclusion of Aboriginal heritage site response and reporting mechanisms should be considered in preparation of the revised EMP, which will cover the Knox Creek Plain, where development is scheduled to commence in 2020.	N/A	The auditor considers that this action is now being met.
N/A	EMP32	ChemCert qualifications are a farm management issue, with links to Terrestrial Environmental Quality (soil quality) and Flora and Vegetation. It is recommended that KAI ensures staff certification remains current and retains records as part of its management system.	EMP32 EMP35 EMP36	Chemical spraying certifications and the register of aerial spraying were not observed (EMP32, EMP35, EMP36). The auditor has assessed that EMP34 as 'unable to audit'.
	13		11	Actual PNCs – 2019 EMP CAR

4.2 Overall audit findings and recommendations

Previous audits (KBC 2018; Strategen 2015, 2016, 2017) have recommended changes to a number of actions in the EMP. These recommendations are retained. A full review of the Goomig EMP, to meet contemporary, outcomes-based requirements of the EPA, commenced in 2017 but is not yet complete. Under the associated Commonwealth approval (EPBC 2010/5491), review of the stormwater monitoring, management and modelling requirements, and of groundwater monitoring, is being undertaken with advice from the Independent Review Group. This is directly informing the EMP revision.

The auditor identified that of 188 audit items assessed for the EMP, eleven (11) or approximately six per cent (6%), of management actions were potentially non-conformant in 2019. As with previous audits, the majority of the PNC actions relate to an aspect of formal monitoring that is currently not being undertaken as prescribed in the EMP, or is being partially undertaken.

Incidents were documented relating to (a) the flow of Ord Stage 1 water to the Keep River (compliance assessment for which is outside of the parameters of the Goomig / Weaber Plain approvals, unrelated to Goomig but nonetheless reported to DWER); (b) channel water flow due to a gate malfunction in March 2019 (not reported); and (c) the detection of farm chemicals in the Keep River in late November / early December 2019 (not reported). This review did not find that these incidents were outside of compliance parameters indicated in the current EMP. The Proponent advised that the revised EMP (in preparation) will provide clearer triggers and compliance assessment criteria and incident reporting requirements on matters relating to water discharge, via the revised Stormwater and Groundwater Discharge Management Plan which has been supported by the IRG.

The incident reports highlight that a key risk arising from the Goomig development relates to the downstream impacts of off-farm flow to the Keep River. It is noted that the Goomig farm area represents approximately one per cent (1%) of the Keep River catchment area, contributing one and a half per cent (1.5%) of catchment inflow under unmodified conditions. Other land and river users impacting on the Keep River include Ord Stage 1 and recreational fishers. The recent upgrade of the Legune/Keep River Road will indirectly contribute to the pressures on the Keep River habitat through increased recreational fishing pressure. The extent to which the Goomig proponent is perceived to be singularly responsible for the health of the river, through the monitoring and outcomes requirements of the relevant management plans, requires further consideration.

The auditor's overall assessment is that there are clear indications of the Proponent clarifying and revising the operational management requirements to meet the objectives of Statement 938. This is being undertaken through the comparison of baseline and post-baseline monitoring and the revision of Statement 938 and EPBC 2010/5491 management plans. Achieving and maintaining compliance with a small number of monitoring actions remains problematic. It is expected that this will be resolved with the EMP and EPBC Management Plan revisions to outcomes-based rather than prescriptive requirements.

Future compliance assessments will need to pay close attention to the operation and utility of the development discharge monitoring at the DW1 Gauging Station, once functionality is restored in 2020. With clearing of the Knox Creek Plain commencing in 2020, the Knox actions will come into play in the next annual Compliance Assessment Report.

It is further recommended that with the introduction of additional landusers (MG Corporation and their partner Cubbie Farms) in 2020, that the monitoring obligations associated with Lots 15 and 16 are clearly articulated and met. This particularly pertains to tailwater monitoring and management, given the downstream (Keep River) risk associated with that activity.

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, 2020, *Instructions on how to prepare Environmental Protection Act Part IV Environmental Management Plans*. DWER, Perth.
- Department of State Development, 2013, *Ord River Irrigation Area – Weaber Plain Development Project: Environmental Management Program*, October 2013.
- Kimberley Agricultural Investment, 2020, *Goomig-Knox Surface Water Report 2019*. Prepared to meet the requirements of SWL179228 and EPBC 2010/5491. KAI, Kununurra.
- 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, 2019a, *Knox Creek Plain Agricultural Development Final Project Design Plan REV C*. Originally prepared for Kimberley Agricultural Investment Pty Ltd, amended for LandCorp June 2019.
- Kimberley Boab Consulting, 2018, *Ord River Irrigation Area Stage 2 M2 Supply Channel Compliance Assessment Report 2017*. Prepared for the Department of Primary Industries and Regional Development, Kununurra, June 2018.
- Kimberley Boab Consulting, 2019b, *Ord River Irrigation Area Stage 2 M2 Supply Channel Compliance Assessment Report 2018*. Prepared for the Department of Primary Industries and Regional Development, Kununurra, June 2019.
- 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 Wesfarmers 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.

Attachment 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	<i>938</i>
Proponent Name	<i>Minister for Regional Development</i>
Proponent's Australian Company Number (where relevant)	

2. Statement of Compliance Details

Reporting Period	<i>1/01/19 to 31/12/19</i>
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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:	<i>2</i>
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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) *Post Assessment Guideline for Preparing an Audit Table*, as amended from time to time. The 'Status Column' of the audit table must accurately describe the compliance status of each implementation condition and/or procedure for the reporting period of this Statement of Compliance. The terms that may be used by the proponent in the 'Status Column' of the audit table are limited to the Compliance Status Terms listed and defined in Table 1 of Attachment 1.

Were all implementation conditions and/or procedures of the Statement complied with within the reporting period? (please tick ✓ the appropriate box)			
No (please proceed to Section 3)	<input type="checkbox"/>	Yes (please proceed to Section 4)	<input checked="" type="checkbox"/>

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?
Eleven actions from the EMP (condition 5-1) were potentially non-compliant. Condition 5-1 was however assessed as compliant.
Was the implementation condition or procedure non-compliant or potentially non-compliant?
The auditor assessed that the eleven potential non-compliances (6% of total actions in the EMP) were not outcomes-related non-compliances, and therefore of a minor nature. The eleven PNCs included duplicated and/or integrated actions and monitoring requirements. Overall, implementation of the EMP was assessed by the auditor as being 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 checked="" type="checkbox"/> No

What are the details of the non-compliance or potential non-compliance and where relevant, the extent of and impacts associated with the non-compliance or potential non-compliance?
EMP19 – Soil testing for electrical conductivity (EC) was not undertaken in 2019. EMP20 – Soil testing for pH and sodicity was not undertaken in 2019. EMP32 – Farm chemical spraying qualifications were not viewed by the auditor. EMP35 – Aerial spraying register was not viewed by the auditor. EMP36 – Aerial spraying pilot/operator accreditation was not viewed by the auditor. EMP109 – The DW1 Gauging Station was not operating in 2019. The auditor noted that DPIRD as Proponent had initiated a full functionality review in 2020. Repairs are scheduled to be completed before the onset of the 2020 wet season. EMP133 – Buffer vegetation monitoring is not undertaken as prescribed. Photographic records of buffer condition are retained at sites around bores and tracks. EMP135 – Buffer reference sites were not surveyed as prescribed in order to compare rehabilitation areas. The auditor recommended a time limitation be put on post-rehabilitation monitoring. EMP162 – Rehabilitation site monitoring was not conducted as required. Refer to EMP135. EMP163 – Rehabilitation site monitoring was not conducted as required. Refer to EMP135. EMP164 – Rehabilitation site monitoring was not conducted as required. Refer to EMP135.
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)
Goomig farm area
What was the cause(s) of the non-compliance or potential non-compliance?
Identified potential non-compliances were administrative or related to monitoring not being undertaken as prescribed.

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?
The EMP review currently under way will address the auditor recommendations in relation to monitoring requirements and records retention, with a focus on prescription rather than outcome.

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?

The majority of potential non-compliances were retained from previous years. The EMP review will consider the auditor recommendations, and those from previous audits, regarding the EMP action requirements.

Please provide information/documentation collected and recorded in relation to this implementation condition or procedure:

- in the reporting period addressed in this Statement of Compliance; and
- as outlined in the approved Compliance Assessment Plan for the Statement addressed in this Statement of Compliance.

(the above information may be provided as an attachment to this Statement of Compliance)

4. Proponent Declaration

I, (full name and position title)

declare that I am authorised on behalf of

(being the person responsible for the proposal) to submit this form and that the information contained in this form is true and not misleading.

Signature:.....

Date:.....

Please note that:

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

5. Submission of Statement of Compliance

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

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

6. Contact Information

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

Manager, Compliance (Ministerial Statements)

Department of Water and Environmental Regulation

Postal Address: Locked Bag 10
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

Attachment 1 Table 1 - Compliance Status Terms

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

Attachment 2 – Ministerial Statement 938 Audit Table 2019

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 to 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	Advice from Proponent	Overall	Within 28 days of change of contact details.	Compliant	No change to Proponent or contact details.
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. Strategen (2013a) - <i>Ord River Irrigation Area Stage 2 (M2 Supply Channel), Compliance Assessment Plan – Statement 938</i>	Overall	Ongoing	Completed	Item assessed as completed in a previous audit period.

Audit code	Subject	Action	How	Evidence	Phase	Timeframe	Status	Further information
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	2019.938.M4.3a Ord River Irrigation Area Stage 2 (M2 Supply Channel), Compliance Assessment Report – Statement 938 [2018]. 2019.938.M4.3b	Overall	Ongoing	Compliant	The 2018 CAR assessed compliance with conditions in accordance with the approved CAP. The 2018 CAR was submitted to EPA Services in November 2019.
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 2019.938.M4.3.a	Overall	Ongoing	Compliant	Reports (and evidence) are retained by DPIRD and KAI. DPIRD (and its predecessors) have provided the 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.	2019.938.M4.4a 2019.938.M4.4b 2019.938.M4.4c 2019.938.M4.4d 2019.EMP96	Overall	Within 7 days of a potential non-compliance being known	Conformant	Incidents were documented relating to (a) the flow of Ord Stage 1 water to the Keep River (compliance assessment for which is outside of the parameters of the Goomig /

Audit code	Subject	Action	How	Evidence	Phase	Timeframe	Status	Further information
								<p>Weaber Plain approvals and therefore unrelated to Goomig; but nonetheless reported to DWER);</p> <p>(b) channel water flow due to a gate malfunction in March 2019 (not reported); and</p> <p>(c) the detection of farm chemicals in the Keep River in late November / early December 2019 (not reported). This review did not find that these incidents were outside of compliance parameters indicated in the current EMP. The Proponent advised that the revised EMP (in preparation) will provide clearer triggers and compliance assessment criteria and incident reporting requirements on matters relating to water discharge, via the revised Stormwater and Groundwater Discharge Management Plan which has been supported by the IRG.</p>
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"> ○ be endorsed by the proponent's Managing Director or a person delegated to sign on the Managing Director's behalf; ○ include a statement as to whether the proponent has complied with the conditions; ○ identify all potential non-compliances and describe corrective and preventative actions taken; 	Submit Annual Compliance Assessment Reports addressing all requirements annually to OEPA	2019.938.M4.3a 2019.938.M4.3b	Overall	By June 2014 and annually thereafter	Compliant*	<p>The 2018 CAR (KBC, 2019b) was submitted to the EPA Service team on 6 November 2019.</p> <p><i>*The approved Compliance Assessment Plan for Statement 938 requires submission by June of the year following the reporting period. This is a timing non-compliance and is not considered material given the mitigating factors undertaken by the proponent for the majority of identified PNCs.</i></p>

Audit code	Subject	Action	How	Evidence	Phase	Timeframe	Status	Further information
		<ul style="list-style-type: none"> ○ be made publicly available in accordance with the approved Compliance Assessment Plan; and ○ indicate any proposed changes to the Compliance Assessment Plan required by Condition 4-1. 						
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	The Weaber and Knox EMP documents are undergoing revision into a single document. The Proponent has conducted reviews of groundwater and stormwater management requirements under guidance from the Independent Review Group established under EPBC 2010/5491. Completion of the EMP review cannot be undertaken until the monitoring review is completed and recommendations considered. <i>It is the auditor’s assessment that the intent of the EMP is being met, despite eleven (6% of total) technical non-conformances indicated in this review.</i>
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	2019.938.M6.1a 2019.938.M6.1b	Overall	Ongoing	Weaber Plain - Completed Knox Creek Plain development not yet commenced –	Weaber: layout finalised per FPDP and construction completed. Knox: revised FPDP submitted to DWER 2019. <i>Approved May 2020.</i>
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	Prepare a Final Decommissioning Plan addressing all requirements and submit to CEO of OEPA for approval in accordance with timeframe	Final Decommissioning Plan to be prepared at a time in the future if/when decommissioning is required.	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. The Proponent advised that there is no intention to decommission Goomig or Knox, however, this requirement will be met should this change.

Audit code	Subject	Action	How	Evidence	Phase	Timeframe	Status	Further information
		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.						
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

Attachment 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	Formal site inspections conducted 19 July 2019 and 28 November 2019. Satellite imagery review (per Figure 2).	Compliant	No change to area cleared. 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.

Audit Code	Element	Description	Evidence	Status	Comments
S1_2.2		Land managed as buffer 42,500ha	Site inspections conducted 19 July 2019 and 28 November 2019 indicated 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 clearing and construction have not been initiated on Knox.
S1_2.3		Land for irrigable development 30,500ha	Site inspections conducted 19 July 2019 and 28 November 2019. Satellite imagery review (per Figure 2).	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 2018.938.M4.3 (KBC, 2018).	Compliant	No change since previous audit period. As advised by previous auditors, as-constructed shapefiles indicate 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	Previous KAI audit advice (December 19, 2018) remains, as reported in the 2018 CAP.	NR	No clearing occurred in relation to channel works outside the Project area in 2019. Maintenance of regrowth vegetation in previously cleared areas occurred during the reporting period, as part of annual infrastructure management responsibilities.
S1_2.6		Wyndham Port Facilities 1ha	Previous KAI audit advice (December 19, 2018) remains, reported in the 2018 CAP.	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	Previous KAI audit advice (December 19, 2018) remains, reported in the 2018 CAP.	NR	No production of raw sugar has occurred.
S1_2.8		Molasses 160,000tpa	Previous KAI audit advice (December 19, 2018) remains, reported in the 2018 CAP.	NR	No production of molasses has occurred.
S1_2.9	Infrastructure	Irrigation channels 160km	Previous KAI audit advice (December 19, 2018) remains, reported in the 2018 CAP.	Compliant	37 km of channels constructed to date. No change since previous audit period.
S1_2.10		Annual water requirements 740GL	2019.S1_2.10	Compliant	A total of 46.01 GL was supplied to the M2 channel in 2019, of which 2.01GL was released through the channel to dilute Ord Stage 1 tailwater. 34.23GL was supplied to Goomig farms. 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 2018.938.M4.3 (KBC, 2018). Site inspections conducted 19 July 2019 and 28 November 2019.	Compliant	No change since previous audit period. 51 km of major drains constructed to date.
S1_2.12		Flood protection levees 142km	Refer to previous audit – see 2018.938.M4.3 (KBC, 2018).	Compliant	No change since previous audit period. 48 km of flood protection levees constructed to date.

Audit Code	Element	Description	Evidence	Status	Comments
			Site inspections conducted 19 July 2019 and 28 November 2019.		Auditor observed that flood protection levees intact and functional around Goomig perimeter.
S1_2.13		Balancing storage dams (operating volume) 5.6GL	Refer to previous audit – see 2018.938.M4.3 (KBC, 2018). Previous KAI audit advice (December 19, 2018) remains, as reported in the 2018 CAP.	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	Site inspections conducted 19 July 2019 and 28 November 2019.	Compliant	No change since previous audit period. 11.9 km of road has been constructed to date. The WA Government, through LandCorp, has obtained approvals to realign Moonamang Road (also known as Keep River Road or Legune Road) from the end of the Goomig development, to the WA border, through the Knox Creek Plain.
S1_2.15		Power lines 165km	Site inspections conducted 19 July 2019 and 28 November 2019.	NR	No construction of power lines has occurred to date.
S1_2.16	Wyndham Port	Raw sugar store 180,000t	Previous KAI audit advice (December 19, 2018) remains, as reported in the 2018 CAP.	NR	Construction has not yet commenced.
S1_2.17		Molasses store 75,000t	Previous KAI audit advice (December 19, 2018) remains, as reported in the 2018 CAP.	NR	Construction has not yet commenced.

Attachment 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

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 2018.938.M4.3 (KBC, 2018).	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 (19 July 2019). 2019.EMP2a 2019.EMP2b 2019.EMP2c	NR	Erosion management is specifically mentioned in induction.	KAI	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	No additional ground disturbance in 2019.	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	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 Compliance Table 1 – Soil conservation management actions								
Item	Action	Purpose	Timing	Evidence	Weaber Plain		Knox Creek Plain	
					Status	Comment	Status	Comment
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	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 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	KAI advised (19 December 2018) no new clearing occurred in 2018.	Completed	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	This item was assessed by previous auditors (Strategen, 2017) as being complete.	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	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 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	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 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	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 11.	Stockpile cleared topsoil and subsoil separately, away from irrigation channels, for later use in rehabilitation in	To provide a natural source of seed, organic matter and	During construction of shared infrastructure	This item was assessed by previous auditors	Completed	Item assessed as completed in a	NR	Construction not yet commenced.

EMP Compliance Table 1 – Soil conservation management actions

Item	Action	Purpose	Timing	Evidence	Weaber Plain		Knox Creek Plain	
					Status	Comment	Status	Comment
	accordance with the Rehabilitation Management Sub-plan	microorganisms for areas to be rehabilitated.		(Strategen, 2017) as being complete.		previous audit period.		
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	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 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	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 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	This item was assessed by previous auditors (Strategen, 2017) as being complete.	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

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. 	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 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. 	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 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.	<ol style="list-style-type: none"> 1. Report as Environmental Incident and initiate Incident Procedure 	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 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. 	Site inspections conducted 19 July 2019 and 28 November 2019. KAI advice (19 July 2019) – no significant or unusual soil erosion following 2019 wet season due to drier than usual wet	Conformant	No significant erosion observed around infrastructure during inspections in 2019.	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
					season and limited intensity of rainfall downpours.				
EMP 19.	Surface and subsoil electrical conductivity within the project area, with a specific focus on areas with Aquitaine clay soils, including: <ul style="list-style-type: none"> at least one sample from each lot a representative spread of sites throughout the Buffer Area. 	Twelve monthly, commencing prior to clearing and at the end of each dry season during operation of irrigation infrastructure	Salinity levels do not exceed 400 mS/m in surface or subsurface soils.	<ol style="list-style-type: none"> Map the distribution of soil with salinity exceeding target levels. 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. 	Soil testing was not undertaken on Goomig in 2019.	PNC	KAI has advised that soil testing will be undertaken in June 2020 to remedy this. KAI advised that this was not undertaken late in the 2019 season (as usually occurs) due to Manager illness.	NR	Construction not yet commenced.
EMP 20.	Surface and subsoil ESP and pH within the project area, with a specific focus on areas with Aquitaine clay soils, including: <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). Verify the adequacy of the estimated leaching rate (approximately 100 mm/a) in controlling sodicity in accordance with the Groundwater Management Sub-plan. 	Soil testing was not undertaken on Goomig in 2019.	PNC	KAI has advised that soil testing will be undertaken in June 2020. KAI advised that this was not undertaken late in the 2019 season (as usually occurs) due to Manager illness.	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
	<ul style="list-style-type: none"> a representative spread of sites throughout the Buffer Area. 			4. Identify whether remedial action is required, such as application of gypsum or sulphur. 5. Implement remedial action on a trial basis in areas identified by mapping. 6. Monitor success of remedy, increasing the frequency of soil monitoring if salinity exceeds target levels.					

EMP Compliance Table 3 - Chemicals management actions

EMP Compliance Table 3 – Chemicals management actions

Item	Action	Purpose	Timing	Evidence	Status	Weaber Plain		Knox Creek Plain	
						Comment	Status	Comment	
EMP 21.	Prospective land managers will be advised of the requirement to comply with procedures for chemical application, and chemical management legislation including: <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) Veterinary Preparations and Animal Feeding Stuffs Act 1976 (WA) Agriculture and Related Resources (Spraying Restriction) Regulations 1979. 	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.	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 Compliance Table 3 – Chemicals management actions								
Item	Action	Purpose	Timing	Evidence	Status	Weaber Plain	Knox Creek Plain	
						Comment	Status	Comment
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	2019.EMP2a 2019.EMP2b 2019.EMP2c	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. Site inspections indicated spill kits including clearly marked instructions for use, located near pumps.	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 inspections conducted 19 July 2019 and 28 November 2019.	Conformant	KAI advised that no farm chemicals are stored on site at Goomig. No storage of farm chemicals was observed by the auditor.	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 conducted 19 July 2019 and 28 November 2019.	Conformant Unable to assess	Hydrocarbons (diesel fuel) were stored in self-bunded tanks or self-bunded trailers. Bunded oil and fuel holding facilities were observed at tailwater pump sites. Unable to assess compliance with <ul style="list-style-type: none"> • <i>Dangerous Goods Safety (Storage and Handling of Non-explosives) Regulations 2007 (WA) and</i> • <i>Australian Standard AS 1940-2004: The Storage and Handling of Flammable and Combustible Liquids</i> as this is beyond the scope of this audit.	NR	Construction not yet commenced

EMP Compliance Table 3 – Chemicals management actions								
Item	Action	Purpose	Timing	Evidence	Status	Weaber Plain	Knox Creek Plain	
						Comment	Status	Comment
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 at Lot 3 during site inspection 19 July 2019.	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 during site inspections. Site inspection (19 July 2019) – spill response kits observed.	Conformant	KAI advised that MSDS data is held in site compounds and fuelling and storage areas, as observed in previous audits.	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 (19 July 2019).	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. This action will be removed from the updated EMP given the Regulations apply regardless.	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	In accordance with Incident Response Procedure	Site inspections conducted 19 July 2019 and 28 November 2019.	Conformant	KAI advised that no spills (warranting reporting to Department of Water and Environmental Regulation - DWER) have occurred, and none were observed during site inspections. The risk of spills in the Project areas is low (refer to EMP 38, 30 and 42).	NR	Construction not yet commenced

EMP Compliance Table 3 – Chemicals management actions								
Item	Action	Purpose	Timing	Evidence	Status	Weaber Plain	Knox Creek Plain	
						Comment	Status	Comment
		Discharges) Regulations 2004 as hydrocarbons are a Schedule 1 Material in these Regulations.				This action will be removed from the updated EMP given the Regulations are statutory and apply regardless of the EMP being in place.		
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	2019.EMP30a 2019.EMP30b 2019.EMP30c 2019.EMP30d 2019.EMP30e 2019.EMP30f	Conformant	2019.EMP30 provides KAI's risk assessment documenting likely chemical usage in season 2019. KAI further advised that it continues to document and retain chemical spraying logs within KAI's farm management software system, as reported in previous years. Examples provided in evidence 2019.EMP30 to 2019.EMP30f	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 inspection – July 19 2019.	Conformant	The IRG established under EPBC 2010/5491 identified a risk with the shift towards wet season cropping on the Goomig farmlands.	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	The auditor was not provided with copies of relevant chemical spraying accreditation documentation.	PNC	KAI advised that pesticide and herbicide spraying is undertaken only by operators with the appropriate level of ChemCert accreditation. Copies of ChemCert qualifications for current staff were not sighted by the auditor. It is recommended that KAI retains updated chemical application certification.	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 – 19 July 2019 and 28 November 2019. 2019.EMP30b 2019.EMP30c 2019.EMP30d 2019.EMP30e 2019.EMP30f	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 Compliance Table 3 – Chemicals management actions								
Item	Action	Purpose	Timing	Evidence	Weaber Plain		Knox Creek Plain	
					Status	Comment	Status	Comment
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	2019.EMP30b 2019.EMP30c 2019.EMP30d 2019.EMP30e 2019.EMP30f	Unable to assess	KAI documents and retains chemical spraying logs within KAI's farm management software system, as reported in previous years. Examples provided in evidence 2019.EMP30 to 2019.EMP30f. The auditor was unable to assess whether the rate of application was compliant with the product label.	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		PNC	The auditor did not observe the register of aerial spraying operations.	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		PNC	The auditor did not observe pilot accreditation.	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. 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.	To minimise the risk of adverse health effects caused by spray fall-out.	Ongoing from commencement of ground disturbance	Site inspections – 19 July 2019 and 28 November 2019.	Conformant	No neighbours within 1500 m of areas that have been sprayed. It is recommended that this action is marked as completed.	NR	Construction not yet commenced
EMP 38.	Design chemical washdown facilities in accordance with Department of Water, Water Quality Protection Notes on:	To minimise potential for environmental impacts by ensuring appropriate siting	Prior to commencement of planting of crops	N/A	Completed.	No washdown facilities are located on farms within the Project area.	NR	Construction not yet commenced

EMP Compliance Table 3 – Chemicals management actions								
Item	Action	Purpose	Timing	Evidence	Status	Weaber Plain	Knox Creek Plain	
						Comment	Status	Comment
	<ul style="list-style-type: none"> Mechanical Equipment Washdown (WQPN No. 68) Chemical Blending (WQPN No. 7). 	(location), design and construction of chemical wash down facilities.						
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 during inspection - 19 July 2019. No blending noted on site inspection.	Conformant	KAI advised that chemical blending and decanting is currently undertaken at the KAI compounds located <i>outside</i> of the Proposal area (at KAI's D4 and Sugar Mill premises).	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	2019.EMP40	Completed	Spill kits observed on site. Previous audits have indicated KAI's use of WQPN No 10. Updated KAI emergency response procedure documentation was previously provided (2018.EMP40) which does not explicitly reference WQPN No. 10 but was deemed to meet 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 inspection - 19 July 2019.	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

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 storage facilities.	Three monthly	All hydrocarbon storage devices comply with appropriate standards and/or regulations	Non-compliant hydrocarbon storage devices to be replaced/repared as appropriate.	Site inspection 19 July 2019. 2019.EMP42a 2019.EMP42b 2019.EMP42c 2019.EMP42d 2019.EMP42e	Conformant	Permanent hydrocarbon storage facilities are present at tailwater pumpsites. KAI previously advised that self-bunded storage devices are inspected very regularly for farm management and economic reasons (ie no spillage of diesel), at a greater frequency than 3-monthly, although no records are maintained of inspections.	NR	Construction not yet commenced.
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 – 19 July 2019 and 28 November 2019.	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 – 19 July 2019 and 28 November 2019. 2019.EMP40 2019.EMP42a-e	Conformant	KAI advised that daily observations of chemical are made but not recorded. No evidence of chemical spillage was observed on site by the auditor.	NR	Construction not yet commenced.

EMP Compliance Table 5 - Dust and particulate management actions

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	KAI advice. Site inspections 19 July 2019 and 19 November 2019.	Conformant	There are no 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	N/A	Completed	Item assessed as completed in a previous audit period.	NR	Construction not yet commenced.
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	KAI advice. Site inspections 19 July 2019 and 19 November 2019.	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	N/A	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	N/A	Completed	Item assessed as completed in a previous audit period.	NR	Construction not yet commenced.

EMP Compliance Table 6 - Dust and particulate monitoring regime

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.	N/A	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.	N/A	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

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	N/A	Completed	Item assessed as completed in a previous audit period.	NA	Item amended in Knox EMP (refer to KEMP 52).	
KEMP 52	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:	To provide data to inform management.	Prior to ground disturbance	N/A	N/A	N/A	Completed	Item assessed as completed in a previous audit period.	

	<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 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	N/A	Completed	<p>The 2016 auditors (Strategen) assessed this action as complete.</p> <p>The current monitoring approach has established new standard weed transects around bores and access tracks. These are assessed annually during bore monitoring rounds.</p>	Completed	The 2016 auditors (Strategen) assessed this action as 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	KAI advised that per previous years, weed inspections (and treatments if required) are undertaken during bore monitoring and routine farm activities.	Conformant	<p>This action was previously a technical PNC as weed inspections were not undertaken on the original transects, but in areas adjacent to farming and monitoring tracks and around bores, where impacts from human activity would be most noticeable. Original weed survey quadrats along transects are no longer easily accessible for monitoring. Regular routine weed inspection in priority areas, along standardised bore monitoring and other permanent access tracks continues. <u>The auditor's previous (2018) assessment carries over to 2019: the intent of the action has been met</u></p>	NR	Construction not yet commenced.

						<p><u>despite the previous PNC.</u></p> <p>Per the 2018 CAR, 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>		
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 advised that weeds identified during regular surveys are treated with Garlon, a slow release (rain activated) herbicide. KAI advised that treatments are ongoing as new seed generation occurs.</p> <p>July 2019 inspection of previously observed Parkinsonia occurrence in the buffer area near Lot 3 indicates ongoing reduction in Parkinsonia re-growth.</p>	Conformant	<p>Refer to EMP 54.</p> <p>Priority areas are not recorded as such, but are managed by field staff.</p>	NR	Construction not yet commenced.
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	<p>KAI advice and site inspections by the auditor that weeds identified during regular surveys are</p>	Conformant	<p>Refer to EMP 54.</p> <p>KAI continues to implement an ongoing weed control program targeting <i>Parkinsonia aculeata</i>. Follow-up</p>	NR	Construction not yet commenced.

				subsequently treated.		treatments occur if required.		
EMP 57.	<p>Implement an induction program for personnel which contains information on:</p> <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	N/A	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.	<p>Prepare guidelines for prospective farmers/lessees that contains information on:</p> <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) • 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). 	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	N/A	Completed	Item assessed as completed in a previous audit period.	NR	Construction not yet commenced.

EMP 59.	Develop and supply an information package to prospective farm owners/lessees/managers within the project area that contains: <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	N/A	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 the Buffer Area.	During clearing of farm lots	NA	Completed	Completed in a previous reporting period.	NA	Item not included in Knox EMP.
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	Water Corporation verbal advice - no acrolein injections were undertaken in 2019. KAI advice – minor channels were allowed to dry as part of the aquatic weed management approach.	Conformant	Aquatic weed control was not undertaken within the main M2 channel in 2019. There is no indication that industry objected to this. This action may be more related to infrastructure management and system functioning than environmental risk.	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	Ongoing from commencement of ground disturbance	N/A	Completed.	N/A	NR	Construction not yet commenced.

		Buffer Area by limiting access.						
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 – 19 July 2019 and 28 November 2019. Existing, original 'No entry' signage remains in-situ. The auditor observed that access to buffer areas is largely restricted by drainage channels and flood protection bunds. No evidence of illegal entry was observed during site inspections.	Conformant	Previous KAI advice 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 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.	To prevent the introduction/spread of weeds and plant pathogens in the Weaber Plain Buffer Area, rehabilitation areas and Priority Areas.	During construction of shared infrastructure	N/A	Completed	Item assessed as completed in a previous audit period.	NA	Item not included in Knox EMP
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	N/A	Completed	Item assessed as completed in a previous audit period.	NA	Item amended in Knox EMP (refer to KEMP 65).

KEMP 65	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.	To prevent the introduction/spread of weeds and plant pathogens in the project area.	Ongoing from commencement of ground disturbance	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	N/A	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 signature of the driver (and vehicle hygiene inspector if first inspection). 	To provide hygiene data to inform management.	During construction of shared infrastructure	N/A	Completed	Item assessed as completed in a previous audit period.	NA	Item not included in Knox EMP.
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 19 July 2019 and 28 November 2019. KAI advised during site inspection that no fill from outside the Project area was used in 2019.	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	2019.EMP69	Completed	Item assessed as completed in a previous audit period.	Borrow Pit rehabilitation guide prepared for proposed Moonamang Road realignment.	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>	See 2019.EMP69	Completed	Item assessed as completed in a previous audit period.	Borrow Pit rehabilitation guide prepared for proposed Moonamang Road realignment.	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 19 July 2019 and 28 November 2019.	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 within the Buffer Area.	Ongoing from commencement of ground disturbance	Site inspections 19 July 2019 and 28 November 2019. KAI advice – ongoing reduction of cattle in buffer.	Conformant	No pest animals (e.g. cats) observed in buffer during inspections. Minimal evidence of cattle presence, indicating sustained reduction in cattle numbers in buffer. Internal (western) buffer boundary fence constructed 2019.	NR	Construction not yet commenced.
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	N/A	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	Ongoing from commencement of ground disturbance	Site inspections 19 July 2019 and 28 November 2019. KAI advice – ongoing reduction of cattle in buffer.	Conformant	Refer to EMP 72. Very few cattle tracks and no cattle observed during site inspections.	NR	Construction not yet commenced.

		throughout the Buffer Area.						
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EMP Compliance Table 8 - Weed, plant pathogen and pest animal monitoring regime

EMP Compliance Table 8 – Weed, plant pathogen and pest animal monitoring regime									
Item	Activity and location	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. 	<p>As per EMP54. KAI advised that per previous years, weed inspections (and treatments if required) are undertaken during bore monitoring and routine farm activities.</p> <p>Auditor observed treated (dead) <i>Parkinsonia</i> in the buffer near to Lot 3.</p>	Conformant	<p>Per EMP54: This action was previously a technical PNC as weed inspections were not undertaken on the original transects, but in areas adjacent to farming and monitoring tracks and around bores, where impacts from human activity would be most noticeable.</p> <p>Original weed survey transects are no longer easily accessible for monitoring. Regular routine weed inspection in priority areas, along standardised bore monitoring and other permanent access tracks continues. <u>The auditor's previous (2018) assessment carries over to 2019: the intent of the action has been met despite a previous PNC.</u></p> <p>Per the 2018 CAR, auditor supports the review of this action (and all other related actions, e.g. EMP 55, EMP 76) including</p>	NR	Construction not yet commenced.

							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.	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.	Conformant*	<p>No new priority areas were observed during site inspections.</p> <p>*As with previous audit findings, density / cover / distribution of weed species in the permanent weed survey transects is not explicitly measured. <i>As such, the auditor has previously assessed this item as potentially non-conformant.</i> 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.</p> <p>Previous audits recommended this action be revised.</p>	NR	Construction not yet commenced.
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. 	Site inspections 19 July 2019 and 28 November 2019.	Conformant	<i>Parkinsonia</i> identified on Lot 15 in a previous audit has been treated. Full eradication of the plant is expected when	NR	Construction not yet commenced.

				<ol style="list-style-type: none"> Undertake weed control in accordance with DAFWA requirements. Monitor success of weed control. 			farming of Lot 15 commences.		
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"> Investigate cause. Undertake eradication program as required. 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

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 the potential risks from <i>Burkholderia pseudomallei</i>, which is found dormant in soils and the potential for its dispersion through irrigation processes. 	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	NA	Completed	Item assessed as completed in a previous audit period.	NA	Item amended in Knox EMP (refer to KEMP 79).	
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</i>	<i>Within one week of personnel commencing work on-site</i>	NA	NA	NA	NR	Construction not yet commenced.	

EMP Compliance Table 9 – Surface water management actions								
Item	Action	Purpose	Timing	Evidence	Weaber Plain		Knox Creek Plain	
					Status	Comment	Status	Comment
		<i>appropriate management measures.</i>						
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	NA	Completed	Item assessed as completed in a previous audit period.	NR	Construction not yet commenced.
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	NA	Completed	Item assessed as completed in a previous audit period.	NR	Construction not yet commenced.

EMP Compliance Table 10 - Surface water monitoring regime

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"> 1. Investigate cause. 2. Implement erosion protection measures, such rock armouring or application of hydromulch to areas identified. 3. Monitor the effectiveness of remedy. 	KAI advised ongoing inspections during routine farm activity. Site inspections – 19 July 2019 and 28 November 2019.	Conformant	Refer to EMP 18. Post-wet season scours on farms and infrastructure are repaired as required to maintain farm functionality.	NR	Construction not yet commenced.

EMP Compliance Table 11 - Groundwater management and monitoring actions

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.	N/A	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>	No change to previous KAI advice (December 2018), per 2018 CAR.	NA	N/A	Conformant	KAI advised no changes from the previous audit periods (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: * groundwater levels and * temperature (automatic, daily) EC, pH, TDS, major cations and anions, nutrients and pesticides seasonally. Low intensity bores:	2019.EMP84a 2019.EMP84b 2019.EMP84c 2019.EMP84d 2019.EMP84e 2019.EMP84f 2019.EMP104a	Conformant	As recommended in a previous audit, the proponent undertook a review of groundwater monitoring to date, which was presented to the IRG in February 2020 (see 2019.EMP84 and 2019.EMP84b). Specific changes to the groundwater monitoring regime were made as follows: 1) Field parameters at all high intensity sites are recorded annually in late September each year. Field parameters at all low intensity sites are recorded triennially in late September. 2) Selective laboratory analysis undertaken annually for high intensity bores and triennially for low intensity bores in late September.	NA	Item amended in Knox EMP (refer to KEMP 84).

EMP Compliance Table 11 – Groundwater management and monitoring actions

Item	Action	Purpose	Timing	Evidence	Weaber Plain		Knox Creek Plain	
					Status	Comment	Status	Comment
			groundwater levels, EC, pH, TDS, nutrients and pesticides seasonally.			3) Comprehensive laboratory analysis undertaken triennially for high intensity bores in late September. This recommended regime was endorsed by the IRG at its February 2020 meeting. The proponent advised it is incorporating the changes into the revised EMP and a revised Groundwater Management Plan to be submitted for approval under EPBC 2010/5491. KAI undertook monitoring of bores in July and October 2019. Datalogger results from 2011-2019 are contained in the attached evidence and have informed IRG decision-making. This action has been classified as compliant due to the actions and intent outlined above. This action will be revised as an outcome of the review and IRG decision.		
KEMP 84	<p><i>Undertake monitoring of the parameters below for bores established under Item 1 (KEMP 83)</i></p> <p><i>High intensity bores:</i></p> <ul style="list-style-type: none"> <i>groundwater levels and temperature (automatic, daily)</i> <i>EC, pH, TDS, nutrients and pesticides seasonally</i> <p><i>Low intensity bores:</i></p>	<i>To collect baseline and ongoing groundwater data to determine any adverse effects to the receiving environment as a result of the Proposal.</i>	<i>Commencing 18 months prior to commencement of irrigation.</i>		NA	NA	NR	As irrigation is not scheduled to commence for some time, this item has not been assessed as NR.

EMP Compliance Table 11 – Groundwater management and monitoring actions

Item	Action	Purpose	Timing	Evidence	Weaber Plain		Knox Creek Plain	
					Status	Comment	Status	Comment
	<ul style="list-style-type: none"> groundwater levels, EC, pH, TDS, nutrients and pesticides seasonally. 							
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 irrigation infrastructure.	N/A	Unable to audit	Bores are for monitoring purposes only, not water abstraction, and therefore a bore licence from DoW (now DWER) is not required. <u>2015 recommendation retained:</u> The auditors recommend deletion of this action as Department of Water (DoW) [now DWER] licence conditions are not applicable.	NA	Item not included in Knox EMP.
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.	2019.EMP84a 2019.EMP84b	Completed.	DPIRD's 2019 review of the bore monitoring network and data recommended that individual farm bores are no longer required. The IRG has accepted this recommendation.	NR	Clearing of farm lots has 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.	2019.EMP84a 2019.EMP84b	Completed.	DPIRD's 2019 review of the bore monitoring network and data recommended that individual farm bores are no longer required. The IRG has accepted this recommendation.	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	To increase the monitoring spatial intensity to help determine	Annually at commencement of dry season	NA	NR	Unable to audit. No DoW licence and therefore no conditions.	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	
	parameters as determined by DoW licence conditions if regional bore ground water quality exceeds triggers.	location and reasons for exceedance. To assist with development of appropriate contingency action.	once trigger has been exceeded.				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.		<u>2015 recommendation retained</u> : The auditors recommend amending or deleting this action as the 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 of triggers are defined.	Ongoing – database to be updated at least every six months with the database to be established prior to June 2013.	2019.EMP89a 2019.EMP89b 2019.EMP89c 2019.EMP89d 2019.EMP84c-g	Conformant		Groundwater records include 2019 field, laboratory and datalogger results.	NR	Monitoring data from Knox Creek Plain bores included in the data.
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.	2019.EMP89a 2019.EMP89b 2019.EMP89c 2019.EMP89d 2019.EMP84c-g	Conformant		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	Refer to EMP84	Conformant		Refer to EMP84 DPIRD’s groundwater monitoring review recommended that the next groundwater modelling update be undertaken after the next data review, when the development has been completed and at least two more comprehensive chemistry sample sets (high intensity bores) plus 5 years of other data have been collected and analysed. The IRG endorsed the	NA	Item amended in Knox EMP (refer to KEMP 91).

EMP Compliance Table 11 – Groundwater management and monitoring actions								
Item	Action	Purpose	Timing	Evidence	Weaber Plain		Knox Creek Plain	
					Status	Comment	Status	Comment
			be updated every two years.			recommendations in full at its meeting on 27 February 2020.		
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 based on the outcomes of future modelling undertaken.	To maximise water use efficiency and minimise potential environmental impacts of shallow groundwater levels by managing irrigated agriculture and/or cropping systems where required, e.g. on leased farms.	Review every five years in association with modelling from the commencement of irrigation.	Refer to EMP84	Conformant	No changes to irrigation management were recommended following the DPIRD review of groundwater monitoring (refer to EMP84).	NA	Item amended in Knox EMP (refer to KEMP 92).
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 has 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 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.	2019.EMP93a 2019.EMP93b 2019.EMP93c	Conformant	The Proponent/DPIRD adopted site-specific trigger levels for nutrients following baseline survey. These have been applied since their endorsement by the IRG in 2016 and they are included in the updated EPBC Stormwater and Groundwater Discharge Management Plan submitted to DWER for review in 2020, before final endorsement by the IRG and submission to the Commonwealth. For farm chemical toxicants, the default guideline values are applied with the upper trigger being the 99% species protection level.	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>	2019.EMP93a 2019.EMP93b	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

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	1. Investigate cause. 2. Implement actions consistent with Groundwater Management Plan (Appendix 3) (e.g. modify land use/irrigation strategies, groundwater extraction).	Refer to EPBC-approved Groundwater Management Plan	Refer to EMP 19, EMP 84, EMP 88 and EMP 93	Conformant	Groundwater level triggers are clear within the Groundwater Management Plan. Site-specific water quality triggers are less clear. The 2019 review report found that groundwater levels have risen relative to reference bores, but consistent with that	NR	Irrigation not yet commenced.

EMP Compliance Table 12 – Groundwater contingency actions

Item	Trigger	Corrective action	Timing	Evidence	Weaber Plain		Knox Creek Plain	
					Status	Comment	Status	Comment
		3. Document changes in Annual Environmental Report (AER).				forecasted in initial, pre-development modelling. The review assessed groundwater level and chemistry trends but didn't assess against trigger criteria <i>per se</i> . The Proponent advised they will address the triggers in the updated EMP to ensure they are simple and clear. 2019.EMP89c-g datalogger reports indicate sub-area groundwater movement since 2011.		
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.	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. 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. 6. Document changes in Annual Environmental Report (AER).	Refer EPBC Groundwater Management Plan	Refer to EMP 93 and EMP 94	Conformant	DPIRD reviewed groundwater monitoring data (2019.EMP84a) in 2019. This was considered by the IRG in February 2020. Findings and recommended changes have been endorsed by the IRG.	NR	Irrigation not yet commenced.

EMP Compliance Table 13 - Discharge management actions

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 – 19 July 2019 and 28 November 2019. 2019.EMP96 2019.EMP104a 2019.EMP42f	Conformant	The auditor observed that tailwater retention dams have been established to service all operating farm lots, and are under construction on lots currently under development. The timing of this action indicates that compliance has been met. Evidence item 2019.EMP96 (incident report to the IRG) describes the circumstances surrounding the detection of farm chemicals in the Keep River in late November / early December 2019, following early wet season rainfall. Item 2019.EMP104a confirms that the IRG is considering the implications of this event for the management of tailwater in the early wet season (shoulder events).	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 – 19 July 2019 and 28 November 2019. 2019.EMP96 2019.EMP104a	Conformant	Refer to EMP96. Wet season farm chemical management was discussed by the IRG at its February 2020 meeting as requiring further attention in the revised Stormwater and Groundwater Discharge Management Plan, given the shift towards wet season cropping on the Goomig farmlands.	NR	Construction not yet commenced.
EMP 98.	Provide an Information Package to prospective landowners/lessees, which:	To minimise the potential for agricultural practices to	At sublease of farm lots	N/A	Completed	Item assessed as completed in a previous audit period.	NR	Construction not yet commenced.

EMP Compliance Table 13 – Discharge management actions								
Item	Action	Purpose	Timing	Evidence	Weaber Plain		Knox Creek Plain	
					Status	Comment	Status	Comment
	<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. 	result in erosion by ensuring prospective landowners are aware of the risks and appropriate management measures.						
EMP 99.	<p>Determine AUSRIVAS trigger score levels for aquatic macro-invertebrates in consultation with the IRG.</p> <p>Updated wording of Commonwealth</p>	To manage the discharge of stormwater and surplus groundwater to protect the downstream environment	Prior to commencement of irrigation	N/A	Completed	Item assessed as completed in a previous audit period.	NA	Item amended in Knox EMP (refer to KEMP 99).

EMP Compliance Table 13 – Discharge management actions								
Item	Action	Purpose	Timing	Evidence	Weaber Plain		Knox Creek Plain	
					Status	Comment	Status	Comment
	<p>EPBC Approval (2010/5491) condition 11f:</p> <p><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>	and EPBC listed species.						
KEMP 99	<p>Adopt water quality trigger levels, as developed in consultation with the IRG under EPBC Approval 2010/5491 and EPBC 2014/7143.</p>	<p>To manage the discharge of stormwater and surplus groundwater to protect the downstream environment and EPBC listed species.</p>	<p>Prior to commencement of irrigation</p>	N/A	NA	NA	NR	<p>Irrigation has not yet commenced.</p>

EMP Compliance Table 13 – Discharge management actions

Item	Action	Purpose	Timing	Evidence	Weaber Plain		Knox Creek Plain	
					Status	Comment	Status	Comment
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	2019.EMP100a 2019.EMP100b 2019.EMP100c	Conformant	KAI provides an annual chemical risk assessment update to the IRG. The Proponent, KAI and the IRG commenced a review of chemistry analysis requirements in 2019 following ANZECC trigger revision processes occurring at a national level. (NOTE: From 2020, DWER/DoW is attending IRG meetings as an observer).	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>	N/A	NA	NA	NR	NR
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	N/A	Previously recorded as completed	The DW1 Gauging Station installed on Border Creek visited during site inspections. The SCADA program has the ability to undertake automatic and manual samples, but this is not used due to telecommunications access issues. It is noted that the remote monitoring of the DW1GS has been problematic and that Proponent is investigating options for ensuring remote access compliance can be maintained. The auditor recommends that the Proponent ensure that remote telecommunications access to the DW1GS is restored to full functionality as a matter of urgency, given the importance of this infrastructure in monitoring and ensuring compliance with the EMP (and related EPBC conditions).	NA	Item amended in Knox EMP (refer to KEMP 101).
KEMP 101	<i>Install a water quality and flow gauging station at the stormwater</i>	<i>To determine flow rate from the Project Area</i>	<i>Prior to commencement of planting of crops</i>	NA	NA	NA	NR	NR

EMP Compliance Table 13 – Discharge management actions								
Item	Action	Purpose	Timing	Evidence	Weaber Plain Status	Comment	Knox Creek Plain Status	Comment
	<i>outlet from the Development Area.</i>	<i>to inform management.</i>						
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)	2019.S1_2.10 2019.938.M4.4c 2019.938.M4.4d	Conformant	Water quality monitoring at the DW1 Gauging Station is undertaken when flows are recorded. Results are reported to the IRG and are used to inform ongoing management. The Proponent commenced a full operational review of the DW1GS in early 2020 in order to re-establish functionality.	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	N/A	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	To preserve and protect the water quality of the Keep river and EPBC listed species, prevent erosion of the banks of the	Ongoing from commencement of irrigation	2019.EMP104a 2019.EMP104b 2019.S1_2.10 2019.938.M4.4c 2019.938.M4.4d	Conformant	The Proponent commenced a full operational review of the DW1GS in early 2020 in order to re-establish functionality, and in particular real-time flow monitoring. This is being undertaken with reference to the IRG and DWER (DoW). This process did not commence until early 2020 (outside of this audit period) but is referenced here for completeness due to the previous audit recommendation.	NA	Item amended in Knox EMP (refer to KEMP 104).

EMP Compliance Table 13 – Discharge management actions								
Item	Action	Purpose	Timing	Evidence	Weaber Plain		Knox Creek Plain	
					Status	Comment	Status	Comment
	and DPW AND/OR DER.	Keep River and provide maximum mixing potential.						
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 	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	2019.S1_2.10 2019.938.M4.4c 2019.938.M4.4d 2019.EMP93a 2019.EMP93b 2019.EMP93c 2019.EMP104a 2019.EMP104b	NR	The Proponent and KAI have previously advised that groundwater (and stormwater during the dry season) is not being discharged from the Project area. Stormwater flow during the wet season is monitored and recorded per EMP102. Discharge rates, rules and contingency actions are being revised through the Stormwater and Groundwater Discharge Management Plan (2019.EMP93a-c). This process continued through 2019, with recommended changes reviewed by the IRG in early 2020.	NR	Construction not yet commenced.

EMP Compliance Table 13 – Discharge management actions								
Item	Action	Purpose	Timing	Evidence	Weaber Plain		Knox Creek Plain	
					Status	Comment	Status	Comment
	* monitoring locations and requirements including infrastructure and setup * 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	To determine when flow rates at Border Creek and the Keep River fall below a minimum flow rate to	Prior to commencement of irrigation	N/A	Completed	Identified as completed in a previous audit. Refer also to 2018.EMP105a and 2018.EMP105b.	NA	Item amended in Knox EMP (refer to KEMP 106).

EMP Compliance Table 13 – Discharge management actions								
Item	Action	Purpose	Timing	Evidence	Weaber Plain		Knox Creek Plain	
					Status	Comment	Status	Comment
	quality data from the Keep River system.	enable flushing.						
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	
EMP 107.	Refine the discharge dilution model / relationship based on flow monitoring data from the Development Area and the Keep River system and water quality characteristics of stormwater from the Development Area.	To determine when flow rates at the Keep River fall below a minimum flow rate to enable flushing.	On a seasonal basis, commencing 12 months after commencement of irrigation	2019.S1_2.10 2019.938.M4.4c 2019.938.M4.4d 2019.EMP93a 2019.EMP93b 2019.EMP93c 2019.EMP104a 2019.EMP104b	Conformant	Discharge rates, rules and contingency actions are being revised through the Stormwater and Groundwater Discharge Management Plan (2019.EMP93a-c). This process continued through 2019, with recommended changes reviewed by the IRG in early 2020.	NR	Irrigation not yet commenced.
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	2019.S1_2.10 2019.938.M4.4c 2019.938.M4.4d 2019.EMP93a 2019.EMP93b 2019.EMP93c 2019.EMP104a 2019.EMP104b	Conformant	Trigger values are being revised through the Stormwater and Groundwater Discharge Management Plan (2019.EMP93a-c). This process continued through 2019, with recommended changes reviewed by the IRG in early 2020.	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

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. 	2019.EMP104a 2019.EMP104b 2019.S1_2.10	PNC	Refer to EMP102 and EMP105. The DW1GS remained poorly functioning in 2019 however was undergoing full operational review at the time of preparation of this CAR, with support of the IRG.	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</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 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
	<i>groundwater discharge pipe.</i>								
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	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	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"> 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. 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. Implement remedial action/s, as required, immediately or at a time determined with the IRG to be appropriate. Monitor success of remedial action/s at least quarterly for 12 months. Report on any findings in Annual Environmental Report (AER) as a result of monitoring. 	2019.EMP104a 2019.EMP104b	3-year baseline study - Completed. 3-years post-development – NR	Baseline study assessed as completed in a previous audit period. The IRG has previously supported 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. The auditor previously recommended that given the delay in reaching 90% development, and following the previously reported flow of Ord Stage 1 water to the Keep River (2017) that the Proponent ensure that the three-year post-development aquatic fauna monitoring is commissioned commencing in 2019. IRG records from early 2020 indicate this is in train. <i>DPIRD has confirmed that post-development surveys will be undertaken at</i>	NA	Item amended in Knox EMP (refer to KEMP 110).

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
	resulting from the action (as listed in the Aquatic Fauna Management Plan).	quality Keep River.							
KEMP 110	<i>Utilise the aquatic ecology monitoring conducted under EPBC Approval 2010/5491 as an indicator of the outcomes of the combined Weaber and Knox management.</i>	<i>Ongoing</i>	<i>Refer to EMP 110.</i>	<i>Refer to EMP110.</i>	<i>NA</i>	<i>NA</i>	<i>NA</i>	<i>NR</i>	<i>Construction not yet commenced in the Knox Plain area. Post-development aquatic ecology monitoring conducted under EPBC Approval 2010/5491 not yet commenced.</i>

EMP Compliance Table 15 - Biodiversity and habitat management actions

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	2019.EMP2a 2019.EMP2b 2019.EMP2c	Conformant	Formal inductions are undertaken by KAI with general environmental management inclusions.	NR	Construction 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 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	N/A	Completed	Item assessed as completed in a previous audit period.	NR	Construction not yet commenced.
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 appropriately marked in the field.	Prior to ground disturbance	N/A	Completed	Refer to EMP 6. Item assessed as Completed as construction in the Weaber Plain development has been completed.	NR	Construction not yet commenced.
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	N/A	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	N/A	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	N/A	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 – 19 July 2019 and 28 November 2019. KAI advice.	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.	Conformant	Refer EMP 117. No calls required.	NR	Construction not yet commenced.

EMP Compliance Table 16 - Biodiversity and habitat management monitoring regime

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: * investigating the cause of the incident * redefining boundaries.	Site inspections 19 July 2019 and 28 November 2019.	Conformant	A previous PNC on this action included incident reporting on accidental clearing in 2016 (between Lots 5 and 18). No further damage was observed during 2019 site inspections. Restoration to natural condition is occurring as a result of the retention of vegetation which was removed in the incident, and the retention of topsoil (and therefore seed bank) in situ.	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.	Report as Environmental Incident and initiate Incident Procedure which shall include: * 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.	NA	Completed	No clearing occurred in 2019.	NR	Construction not yet commenced.

EMP Compliance Table 17 - Buffer management actions

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 – 19 July 2019 and 28 November 2019.	Conformant	Original signage in situ. Access to most buffer areas impeded by infrastructure (e.g. drain or flood protection levee). 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 – 19 July 2019 and 28 November 2019.	Conformant	Signage advising of restricted access observed during site inspections.	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	2019.EMP2a 2019.EMP2b 2019.EMP2c	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</i>	<i>To minimise potential for adverse environmental</i>	<i>Within one week of commencing work on-site</i>	NA	NA	NA	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
	<i>Buffer Area, including roads and groundwater bores.</i>	<i>impacts by 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	NA	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	Site inspections – 19 July 2019 and 28 November 2019. See also 2019.EMP135	Conformant	This item was previously classified as a PNC (Strategen, 2016) 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.	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 Compliance Table 17 – Buffer management actions

Item	Action	Purpose	Timing	Evidence	Weaber Plain		Knox Creek Plain	
					Status	Comment	Status	Comment
EMP 126.	In consultation with the DPW AND/OR DER and DoW, 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. Species used in such revegetation will be agreed with the DPW AND/OR DER and DoW.	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.	Within 12 months of completion of construction of infrastructure and as determined to be required in consultation with DPW AND/OR DER and DoW	Site inspections – 19 July 2019 and 28 November 2019.	NR	No buffer revegetation was required during the audit period.	NA	Item amended in Knox EMP (refer to KEMP 126).
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	To better enable the Buffer Area to fulfil its intended role and purpose by restoring ecological	Within 12 months of completion of construction of infrastructure and ongoing	Site inspections – 19 July 2019 and 28 November 2019.	Conformant	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 show no evidence of decline or excessive weed infestation, with evidence of weed control provided through photos and	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
	Weed, Plant Pathogen and Pest Animal Management Sub-plan.	integrity and function to degraded areas.				during site visits. 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.		
EMP 128.	Liaise with DPW with regard to their plans for implementation of the State Cane Toad Strategy (DEC 2009) in the Development Area.	To reduce the potential effect of cane toads on the Buffer Area.	As required	N/A	Completed	Item assessed as completed in a previous audit period.	NA	Item not included in Knox EMP.
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	N/A	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	N/A	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	To ensure species and habitats within the Buffer Area are not adversely affected by stock grazing	Ongoing	Site inspections – 19 July 2019 and 28 November 2019.	Conformant	Buffer Area perimeter fencing observed intact and maintained, during all site inspections. Minimal evidence of stock presence was identified during site inspections. Internal buffer fencing was constructed between the farms and western buffer area in 2019.	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
	protect native vegetation condition							
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	2019.EMP132	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. Site inspections indicated mosaic burning is occurring. This is supported by Firescar mapping (see 2019.EMP132). KAI advised that fire management is undertaken in accordance with the SWEK permits – Refer to EMP 45.	NR	Construction not yet commenced.

EMP Compliance Table 18 - Buffer monitoring actions
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).	Site inspections 19 July 2019 and 28 November 2019. 2019.EMP133a 2019.EMP133b 2019.EMP133c 2019.EMP133d 2019.EMP133e	PNC	The PNC is retained from previous audits as the Keighery scale is not applied and vegetation condition mapping is not routinely updated. However, the intent of the action is being met through routine buffer inspections during bore monitoring rounds at the beginning and end of each dry season. Photographic evidence samples (2019.EMP.133a through to 2018.EMP.133e) showing no decline in vegetation condition near tracks and around bores. Previous audits have suggested amending this action.	NR	Construction not yet commenced.

EMP Compliance Table 19 - Rehabilitation management actions

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	N/A	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	2019.EMP135 Auditor site inspections (19 July 2019 and 28 November 2019) visually indicate rehabilitation sites have re-established. 2019.EMP.135 provides satellite imagery indicating similarity of rehabilitation with the adjoining landscape.	PNC retained from previous Compliance Assessment Reports due to species surveys not being undertaken.	KAI previously 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. Reference site surveys are not undertaken. KAI also noted that it did not undertake the rehabilitation in the buffer or infrastructure areas. These activities were completed by Leighton Contractors or others for LandCorp at the completion of construction (~2012-14). Photographic records of rehabilitation site progress are retained by KAI. As post-infrastructure rehabilitation occurred in 2012, it is recommended that the need for rehabilitation site surveys be reconsidered and a time limit for post-	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
						rehabilitation monitoring be applied.		
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	N/A	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	N/A	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	N/A	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	NR	NR	NR during this audit period.	NR	Seed collection not yet required.

EMP Compliance Table 19 – Rehabilitation management actions

Item	Action	Purpose	Timing	Evidence	Weaber Plain		Knox Creek Plain	
					Status	Comment	Status	Comment
	<ul style="list-style-type: none"> collection by hand, mechanical harvesting, etc. 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 Compliance Table 19 – Rehabilitation management actions

Item	Action	Purpose	Timing	Evidence	Weaber Plain		Knox Creek Plain	
					Status	Comment	Status	Comment
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 – 19 July 2019 and 28 November 2019	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 – 19 July 2019 and 28 November 2019	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 – 19 July 2019 and 28 November 2019	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	N/A	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 – 19 July 2019 and 28 November 2019	Conformant	No new rehabilitation during this audit period.	NR	Rehabilitation 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 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 – 19 July 2019 and 28 November 2019	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	N/A	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 – 19 July 2019 and 28 November 2019	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	N/A	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 – 19 July 2019 and 28 November 2019	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 – 19 July 2019 and 28 November 2019	Conformant	No new rehabilitation during this audit period.	NR	Rehabilitation 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 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	N/A	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 – 19 July 2019 and 28 November 2019	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 growing on the topsoil stockpile to reach the deepest parts of the stockpile, thereby sustaining many micro-organisms.	Ongoing from commencement of ground disturbance	Site inspections – 19 July 2019 and 28 November 2019	Conformant	No new rehabilitation during this audit period.	NR	Clearing not yet commenced.
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 – 19 July 2019 and 28 November 2019	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	To ensure timely and appropriate rehabilitation of borrow pits.	As required	Site inspections – 19 July 2019 and 28 November 2019	NR	Inspections not required as Area 11 is still in use.	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
	rehabilitated such that they are free draining.							
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

EMP Compliance Table 20 – Rehabilitation monitoring regime									
Item	Activity and location	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 monitoring procedures.	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 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. 	<ol style="list-style-type: none"> Identify cause. 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. Monitor success of approach. 	Refer to EMP 135	PNC	Refer to EMP 135.	NR	No rehabilitation sites associated with Knox Creek Plain.
EMP 163.	Indicator species in rehabilitation sites.	Twice annually (in May and October).	As determined in accordance with Item EMP 136	<ol style="list-style-type: none"> Identify cause. 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

				<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. <p>3. Monitor success of approach.</p>					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).	<p>Exotic flora species:</p> <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. 	<ol style="list-style-type: none"> Identify cause. Identify the weeds, their location and coverage. Implement remedy which could include: implementing a weed control program reinforcing management actions in the Weed, Plant Pathogen and Pest Animal Management Sub-plan and Rehabilitation Management Sub-plan. 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.	<p>Ensure landform is safe and stable with no erosion occurring 18 months after rehabilitation.</p> <p>Reconstructed landform can withstand exceedance of average rainfall occurrences for a period of 10 years.</p>	<ol style="list-style-type: none"> Identify cause of erosion. Consult expert to determine appropriate remedy which may include <ul style="list-style-type: none"> Installing culverts Installing stormwater diversion structures. Implement remedy. Monitor success of remedy. 	Site inspections 19 July 2019 and 28 November 2019	Conformant	No erosion observed adjacent to rehabilitation sites. Rehabilitation has now been in place for five years and sites appear stabilised.	NR	NR

EMP Compliance Table 21 - Aboriginal heritage management actions

EMP Compliance Table 21 – Aboriginal heritage management actions								
Item	Action	Purpose	Timing	Evidence	Weaber Plain	Comment	Knox Creek Plain	Comment
					Status		Status	
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	2019.EMP2b 2019.EMP2c	Compliant	Farm sales package assessed as completed in a previous audit period.	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	N/A	Completed	Item assessed as completed in a previous audit period.	NR	Construction not yet commenced.
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	N/A	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	N/A	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 <i>Aboriginal Heritage Act 1972</i> (WA).	Ongoing from commencement of ground disturbance	KAI advice July 2019.	Conformant	No new sites reported in 2019.	NR	Construction not yet commenced.

EMP Compliance Table 21 – Aboriginal heritage management actions								
Item	Action	Purpose	Timing	Evidence	Weaber Plain		Knox Creek Plain	
					Status	Comment	Status	Comment
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 (19 July 2019).	Completed	Goomig clearing has been completed.	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 (19 July 2019).	NR	No suspected heritage sites were identified during this audit period.	NA	Item not included in Knox EMP.

EMP Compliance Table 21 – Aboriginal heritage management actions								
Item	Action	Purpose	Timing	Evidence	Weaber Plain	Comment	Knox Creek Plain	Comment
					Status		Status	
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 Miriuwung and Gajerrong people in heritage management throughout the life of the project, in accordance with the OFA and OES.	Prior to ground disturbance	N/A	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	N/A	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 (July 2019). DPIRD advice (June 2020).	Conformant	DPIRD advised that the Water and Environmental Management Instrument Agreement (WEMIA) between KAI and MG Corporation was being executed in June 2020 (outside the period of this audit) following negotiation in 2019, and that a formal entity – Goomig Land and Water - is being established as the Special Purpose Vehicle to oversee environmental management on Goomig.	Conformant	Included with Goomig.
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	N/A	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

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).	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. Consult with the Department of Aboriginal Affairs and MG Corporation to determine actions required to restore the site to its original condition.	N/A	Completed	Item assessed as completed in a previous audit period.	NR	Construction not yet commenced.
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.	N/A	Completed	Item assessed as completed in a previous audit period.	NA	Item not included in Knox EMP.

Attachment 5 - Evidence Register

PART A – Evidence Summary

Reference	Title	Related conditions and actions
2019.S1_2.10	Goomig-Knox Surface Water Report 2019 SWL179228(2)	S1_2.10
2019.938.M4.3	Statement 938 and EMP Compliance Assessment Report 2018	M4.3
2019.938.M4.4a	Submission of compliance notice to DAWE 2020-02-17	M4.4
2019.938.M4.4b	Letter DPIRD to Secretary DEE re tailwater release	M4.4
2019.938.M4.4c	Incident report - Ord Stage One tailwater release and response	M4.4
2019.938.M4.4d	KAI incident report - Keep River flow March 2019	M4.4
2019.938.M433b	Submission of CAR 6 Nov 2019	M4.3
2019.938.M6.1a	Knox Creek Plain Final Project Design Plan REV C	M6.1
2019.938.M6.1b	Knox FPDP REV C Approval Letter May 2020	M6.1
2019.EMP2a	KAI Induction - environmental management slide	EMP2,
2019.EMP2b	KAI Induction questions	EMP2, EMP166
2019.EMP2c	KAI Induction Register 2019	EMP2, EMP166
2019.EMP30a	KAI Farm chemical risk assessment	EMP30
2019.EMP30b	Example spray log record	EMP30
2019.EMP30c	Example spray log record	EMP30
2019.EMP30d	Example spray log record	EMP30
2019.EMP30e	Example spray log record	EMP30
2019.EMP30f	Example spray log record	EMP30
2019.EMP40	Lot 14 spill kit	EMP40
2019.EMP42a	Lot 9 hydrocarbon storage - double bunded tank	EMP42
2019.EMP42b	Lot 3-5 hydrocarbon storage - double bunded tank	EMP42
2019.EMP42c	Lot 3-5 oil container holder	EMP42
2019.EMP42d	Lot 9 pump oil container on concrete	EMP42
2019.EMP42e	Lot 14 pumpsite oil holder	EMP42
2019.EMP42f	Lot 14 tailwater pump	EMP42, EMP96
2019.EMP69	Moonamang Road and Borrow Pit Environmental Management Guide REV A	EMP69, EMP70
2019.EMP77	Volunteer cotton in on-farm drain Lot 5	EMP77
2019.EMP84a	Goomig Groundwater Monitoring Review EPBC5491 Condition 12 FINAL	EMP84, EMP91, EMP92, EMP94
2019.EMP84b	North West Goomig bores data 2011-2019	EMP84, EMP91, EMP92, EMP94
2019.EMP84c	Cave Springs bore data 2011-2019	EMP84, EMP91, EMP92, EMP94
2019.EMP84d	Goomig Palaeochannel bores data 2011-2019	EMP84, EMP91, EMP92, EMP94
2019.EMP84e	Knox bore data 2011-2019	EMP84, EMP91, EMP92, EMP94
2019.EMP84f	M1 Channel bores data 2011-2019	EMP84, EMP91, EMP92, EMP94
2019.EMP89a	Bore monitoring lab data July 2019 19S0043_R0	EMP89, EMP90
2019.EMP89b	Bore monitoring lab data July 2019 19S0255_R0	EMP89, EMP90
2019.EMP89c	Dec2019 Goomig bores field data	EMP89, EMP90
2019.EMP89d	June-July 2019 datalogger field readings	EMP89, EMP90
2019.EMP93a	Revised SGDMP REV 13 Draft	EMP93, EMP94, EMP95
2019.EMP93b	Proposal for a revised water quality monitoring and management approach - April 2019	EMP93, EMP94, EMP95
2019.EMP93c	New and Revised Guideline Values for Pesticides in Fresh and Marine Waters	EMP93, EMP94, EMP95
2019.EMP96	Farm chemical detection incident report Nov-Dec 2019	EMP96, EMP97, EMP104, M4.4
2019.EMP100a	KAI 2019 Farm chemical risk assessment	EMP100
2019.EMP100b	Chemical risk and monitoring regime review 2019-04-12	EMP100
2019.EMP100c	IRG Record of Meeting 2019-04-12	EMP100
2019.EMP104a	Record of IRG Meeting - Weaber Plains Dev Project - 27 February 2020	EMP104, EMP96, EMP97, EMP84
2019.EMP104b	IRG Draft Record of Meeting - 7 May 2020	EMP104
2019.EMP132	Goomig firescar 2019	EMP132
2019.EMP133a	Buffer north of Lot 5 - Folly Rock 2019-07-19	EMP133
2019.EMP133b	Buffer between Lots 5 and 18 2019-07-19	EMP133
2019.EMP133c	Buffer north of Lot 16 2019-07-04	EMP133
2019.EMP133d	View to buffer from Lot 14 pump 2019-07-19	EMP133
2019.EMP133e	Gouldian Finch breeding area buffer N of Lot 19 2019-07-19	EMP133
2019.EMP135	Example Goomig Post-Construction Rehabilitation - Satellite Imagery	EMP135