



**EPBC 2010/5491**

# ANNUAL ENVIRONMENT REPORT

1 May 2021 to 30 April 2022

Prepared for Department of Primary Industries and Regional Development

REV O-amended  
AUGUST 2022

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



# KIMBERLEY BOAB

## C O N S U L T I N G

PO Box 149  
KUNUNURRA WA 6743  
kimberleyboab@gmail.com  
www.kimberleyboabconsulting.com  
ABN 74 610 412 836

*Dr Debra Pearce BSc MA PhD*  
*Exemplar Global AU – Management systems auditing*  
*Exemplar Global TL – Leading management systems audit teams*  
*Exemplar Global QM – Quality management systems [ISO9001]*  
*Exemplar Global EM – Environmental management systems [ISO14001]*  
*Exemplar Global OH – Occupational Health and Safety management systems [ISO45001]*

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### Disclaimer and Limitation

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

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

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### Document control

Date	Version	Reviewed by
June 2022	DRAFT REV A	DPIRD
July 2022	REV O for submission	DPIRD
August 2022	REV O Amended	

## ACRONYMS AND ABBREVIATIONS

AFMP	Aquatic Fauna Management Plan
BMP	Buffer Management Plan
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)
DAWE	Department of Agriculture, Water and the Environment (formerly Department of Environment and Energy)
DBCA	Department of Biodiversity, Conservation and Attractions
DP	Design Plan
DAFWA	Department of Agriculture and Food Western Australia
DPIRD	Department of Primary Industries and Regional Development (previously DAFWA)
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
GFCP	Gouldian Finch Conservation 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
JTSI	Department of Jobs, Tourism, Science and Innovation (formerly Department of State Development - DSD)
KBC	Kimberley Boab Consulting Pty Ltd
KAI	Kimberley Agricultural Investment Pty Ltd
KBR	Kellogg Brown Root
km	Kilometres
MG Corp	Yawoorroong Miriuwung Gajerrong Yirrgeb Noong Dawang Aboriginal Corporation
ML	Megalitres
MS938	Ministerial Statement 938
OFA	Ord Final Agreement
OIC	Ord irrigation Cooperative
ORIA	Ord River Irrigation Area
OSWM	Operational Surface Water Model
SEIS	Supplementary Environmental Impact Statement
SGDMP	Stormwater and Groundwater Discharge Management Plan
SPV	Special Purpose Vehicle
TMS	Tailwater Management System
WA	Western Australia
WEMIA	Water and Environmental Management Instrument Agreement

## ACKNOWLEDGEMENTS

*Mr Wayne Paul from Kimberley Agricultural Investment Pty Ltd was interviewed on multiple occasions and provided data to support the development of this report.*

*Ms Nicole Zago, Ms. Helena O'Dwyer and Ms. Jo-Anne Ellis from DPIRD provided evidence and responses to queries on behalf of the proponent.*

# Statement of Compliance

## Declaration of accuracy

In making this declaration, I am aware that sections 490 and 491 of the *Environment Protection and Biodiversity Conservation Act 1999* (Cth) (EPBC Act) make it an offence in certain circumstances to knowingly provide false or misleading information or documents. The offence is punishable on conviction by imprisonment or a fine, or both. I declare that all the information and documentation supporting this compliance report is true and correct in every particular. I am authorised to bind the approval holder to this declaration and that I have no knowledge of that authorisation being revoked at the time of making this declaration.

Signed



Full name

EAMONN McCABE

Position (please print)

EXECUTIVE DIRECTOR, INDUSTRY AND ECONOMIC  
DEVELOPMENT

Organisation (please print including ABN/ACN if applicable)

DEPARTMENT OF PRIMARY INDUSTRIES AND REGIONAL  
DEVELOPMENT

ABN 18 951 343 745

Date

07 / 10 / 2022

## EXECUTIVE SUMMARY

This *Weaber Plain Development Project EPBC Annual Environment Report* for the period 1 May 2021 to 30 April 2022 has been developed in accordance with Condition 3 of the Commonwealth Environmental Approval for the Weaber Plain Development Project, EPBC 2010/5491, issued under the *Environment Protection and Biodiversity Conservation (EPBC) Act 1999*.

The Western Australian Government, Kimberley Agricultural Investment Pty Ltd (KAI) and the Yawoorroong Miriung Gajerrong Yirrgeb Noong Dawang Aboriginal Corporation (MG Corp) are completing farm development and conducting irrigated agriculture across the Weaber Plain, north of Kununurra in the eastern Kimberley region of WA.

This report has been prepared for the Proponent, the Department of Primary Industries and Regional Development (DPIRD), for the period May 2021 to April 2022. This report is an Annual Environment Report rather than an audit report, but nonetheless reviews compliance and ongoing improvement opportunities, and considers the findings of monitoring programs in relation to overall environmental objectives for the Project.

### Potential non-compliances

Potential non-compliances (PNC) are provided below. The issues raised relate predominantly to the application of the monitoring requirements, and do not necessarily point towards declining ecological condition or increased risk to Matters of National Environmental Significance (MNES).

Condition	Is the project compliant?	Status at 30 April 2022
6F Performance standards in relation to the Gouldian Finch population.	Potentially non-compliant	<i>This is a new Potential Non-Compliance (PNC).</i> The 2021-2022 survey findings are provided in items 2010.5491.2022.003a and 2010.5491.2022.003b. No Gouldian Finches were recorded breeding in the artificial nestboxes within the 2022 breeding season, nor was any recent usage visible.  Consultants Biota advised that “the target of <i>no reduction in baseline breeding numbers</i> which can be attributed to Buffer Area management has not been achieved, as no Gouldian Finches were confirmed breeding in the buffer area”. Biota provided recommendations, which DPIRD has commenced acting upon.
10C A monitoring program in the Keep River pools to be undertaken to ensure water quality and flow does not exceed trigger values.	Potentially non-compliant	<i>This is a new PNC.</i> Water quality sample results for 15/11/2021, 14/1/2022, 15/1/2022, 28/2/2022 and 16/3/2022 provide wet season information for seasonally accessible pools in the Keep River. Dry season (2021) water quality data for the Keep River have not been observed. Management responses applied where water quality parameters have exceeded trigger levels are not clear.
11B Management actions to prevent runoff transporting pollutants downstream should	Potentially non-compliant	<i>This is a new PNC.</i> The identification of Metolachlor (exceeding

Condition	Is the project compliant?	Status at 30 April 2022
the agreed tailwater retention capacity be reached. This must include diversion of on-farm stormwater to irrigation channels in periods of low flow, where there is capacity, as identified by Conditions 11 .G and 11 .H, to ensure pollutants are not transported into the Border Creek and Keep River in low flow periods.		the trigger level) in the Keep River K3 pool (16/3/2022 – per supporting document 2010.5491.2022.009) and in DW1GS samples taken on 14/1/2022, 15/1/2022, 28/2/2022 and 16/3/2022 needs to be considered in light of this management plan requirement.
11D Installation of water quality and flow gauging stations capable of sampling first flush discharges at the stormwater outlet from the Development Area and installation of flow gauging stations at Border Creek and Keep River, in consultation with the Independent Review Group. Sampling must include analytes identified in Condition 11.I and must have the required accuracy to measure low flow rates. Gauging stations must be established prior to the commencement of irrigation. For any release of first flush water, monitoring must be conducted more than once a day and for any other stormwater flows monitoring must be conducted at least once per day. Automated sampling techniques may be utilised.	Potentially non-compliant	<p><i>This PNC is retained from previous years.</i></p> <p>The DW1 Gauging Station (DW1GS) was not functioning as designed during the reporting period. An independent review of the station’s functionality was completed in June 2020. At the end of the reporting period, the DW1GS had improved functionality but telemetry and access remain problematic. The Proponent and KAI continue to work towards rectifying the DW1GS issues.</p> <p>The IRG has noted that achieving functionality in this critical monitoring infrastructure is essential, and has expressed frustration at the delays in achieving a working system. The 2020 AER comment remains: <b>A properly functioning DW1 Gauging Station is essential for the monitoring of normal season and risk events and to support the OSWM calculations required under Condition 11L. Accurate risk assessment and management responses are restricted without a functioning DW1GS.</b></p>
11L An Operational Surface Water Model (OSWM) (that incorporates the outcomes of Conditions 11.A, 11.G and 11.H, and the requirements of 11.J and 11.K) to minimise discharges of stormwater and groundwater into the Border Creek and Keep River and ensure that all flow rules are complied with. A framework of the OSWM must be provided prior to commencement of irrigation and a full model, which includes updated monitoring results, provided within 12 months of the commencement of irrigation. The OSWM must be updated on a seasonal basis.	Potentially non-compliant	<p><i>This PNC is retained from 2021.</i></p> <p>A simplified Operational Surface Water Model has been incorporated into the revised (but not finalised) SGDMP, along with early warning criteria.</p> <p>As noted under item 11D, <b>a properly functioning DW1 Gauging Station is essential for the monitoring of normal season and risk events and to support the OSWM calculations required under Condition 11L. Accurate risk assessment and management responses are restricted without a functioning DW1GS.</b></p> <p>The OSWM cannot be effectively used in risk assessment and management until DW1GS data can inform decision-making in a timely manner.</p>
11M Contingency measures should water quality and flow trigger values be exceeded or there are impacts on the health of threatened species as identified in aquatic fauna monitoring results in Condition 10.G. This must include the ceasing of discharge of stormwater and groundwater to Border Creek and Keep River, implementation of a high intensity (at least daily) water quality	Potentially non-compliant	<p><i>This is a new PNC.</i></p> <p>Contingency measures are included in the approved and draft revised SGDMP. Supporting document 2010.5491.2022.009 (Goornig 2022 wet season run off and Keep River test results) indicates trigger exceedances for EC and Total N in the K2 pool, and for Metolachlor in the K3 pool. It is unclear how this information was used to</p>

Condition	Is the project compliant?	Status at 30 April 2022
sampling program, release of fresh irrigation water to flush the system and changes to farm practices such as reducing or ceasing the use of fertilisers and chemicals.		inform management responses.
15 If the person taking the action wishes to carry out any activity otherwise than in accordance with any of the management plans as specified in the conditions, the person taking the action must submit to the Department for the Minister's written approval a revised version of that management plan. The varied activity shall not commence until the Minister has approved the varied management plan in writing. The Minister will not approve a varied management plan unless the revised management plan would result in an equivalent or improved environmental outcome over time. If the Minister approves the revised management plan, that management plan, must be implemented in place of the management plan originally approved.	Potentially non-compliant	<p><i>This PNC is retained from 2021.</i></p> <p>The Proponent is generally undertaking monitoring under conditions 10, 11 and 12 in accordance with recommended changes to monitoring regimes which have been supported by the IRG. Where monitoring is being delivered according to the IRG-supported approach (which are informed by actual on-the-ground arrangements and not pre-development assumptions, as were the 2012-approved management plans) the performance in 2021-2022 has been assessed as compliant.</p> <p>However, revised management plans have <b>not</b> been finalised and submitted to the Department. On this basis, the proponent is potentially non-compliant with Condition 15. If the Department does not consider the revised monitoring regimes which have been supported by the IRG to be acceptable, the proponent is also potentially non-compliant with various elements of Condition 11 and Condition 12. It is essential that the management plans be finalised and submitted for approval as soon as possible, to clear up any discrepancies between the originally approved plans and the current arrangements.</p> <p>At the end of the compliance period, the Proponent was preparing a project plan in collaboration with Murdoch University to (among other things) build and verify a hydrodynamic model of the Keep River using flow, survey and chemistry data to assess mitigation and management options. This project will enable the revised Stormwater and Groundwater Discharge Management Plan to be finalised. Critically, the project will help determine the conditions under which water can be released from water storages and when event-based monitoring should commence and can cease.</p>

## Previous recommendations

As reported in the 2022 AER, Gouldian Finch surveys from late 2020 and early 2021 indicated a decline in Gouldian Finch presence in the Goomig buffers. Consultants were engaged for further surveys, and nest box replacement commissioned. The 2021-2022 Gouldian Finch breeding (nest box) report indicates that breeding targets have not been met. This is reflected in the potential non-compliance identified under Condition 6F, as noted in Table 3.

Stormwater monitoring, and in particular the functioning of the DW1 Gauging Station and the application of the associated Operational Surface Water Model to inform water quality predictions and resultant management actions remains problematic, although improvements have been initiated. The use of this facility to inform risk management and response decisions is fundamental to compliance with EPBC 2010/5491.

### **Overall finding**

There continues to be potential non-compliances issued in relation to Condition 11 (Stormwater and Groundwater Management Plan), relating to the DW1 Gauging Station functionality, monitoring and demonstrating contingency responses to monitoring data. In 2021, potential non-compliances were identified for Conditions 11D, 11L and 15. In 2022, this has been expanded to include 6F (Gouldian Finch performance standards), 10C (dry season Keep River monitoring), 11B and 11M.

The inability to meet the requirements of Condition 11 is an ongoing concern. As identified by the Independent Review Group (IRG) established under Condition 9 of EPBC 2010/5491, water quality and flow gauging assessment capacity at the development stormwater outlet must be functioning in order to identify and mitigate stormwater risk arising from agriculture on Goomig. The ability to adequately risk assess (via the Operational Surface Water Model – OSWM) is predicated on functioning gauging and water quality assessment.

In relation to the potential non-compliance indicated for Condition 15, the finalisation and approval of updated management plans should be completed as soon as possible to ensure the proponent can be considered compliant with the monitoring obligations of EPBC 2010/5491.

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## 1.0 Introduction

This Annual Environment Report (AER) for the period 1 May 2021 to 30 April 2022 has been prepared to meet the requirements of Condition 3 of the Commonwealth Environmental Approval for the Weaber Plain Development Project, EPBC 2010/5491, issued under the *Environment Protection and Biodiversity Conservation (EPBC) Act 1999*.

The Western Australian Government, Kimberley Agricultural Investment Pty Ltd (KAI) and the Yawoorroong Miriuwung Gajerrong Yirrgeb Noong Dawang Aboriginal Corporation (MG Corp) are completing farm development and conducting irrigated agriculture across the Weaber Plain, north of Kununurra in the eastern Kimberley region of WA. The land is known as the 'Goomig farm area'.

The Weaber Plain is located immediately northeast of the existing Ord River Irrigation Area (ORIA) (Figure 1), with the development representing the second stage of the ORIA scheme. The development is supplied by a main irrigation channel (the 'M2 channel'). The M2 channel extends from Stock Route Road, part way along the older M1 irrigation channel. It releases irrigation water from Lake Argyle, which is conveyed via the Ord River and Lake Kununurra, and gravity-fed to the Goomig farm area.

The land within and surrounding the Weaber Plain Development (or Goomig) Area is of traditional and current significance to Aboriginal people, who continue to maintain a strong cultural identity and attachment to the land. The Project Area is covered by the Ord Final Agreement (OFA). The traditional owners of land within the Weaber Plain area are the Miriuwung and Gajerrong (MG) peoples. The Weaber Plain development includes the farmland referred to as the Goomig farm area, in line with a naming recommendation from the Traditional Owners. Approximately ten per cent of the Goomig farmlands are held in freehold by the MG Corp. The buffer surrounding the development is also held in freehold by MG Corp (Figure 2).

Figure 1 - Location map

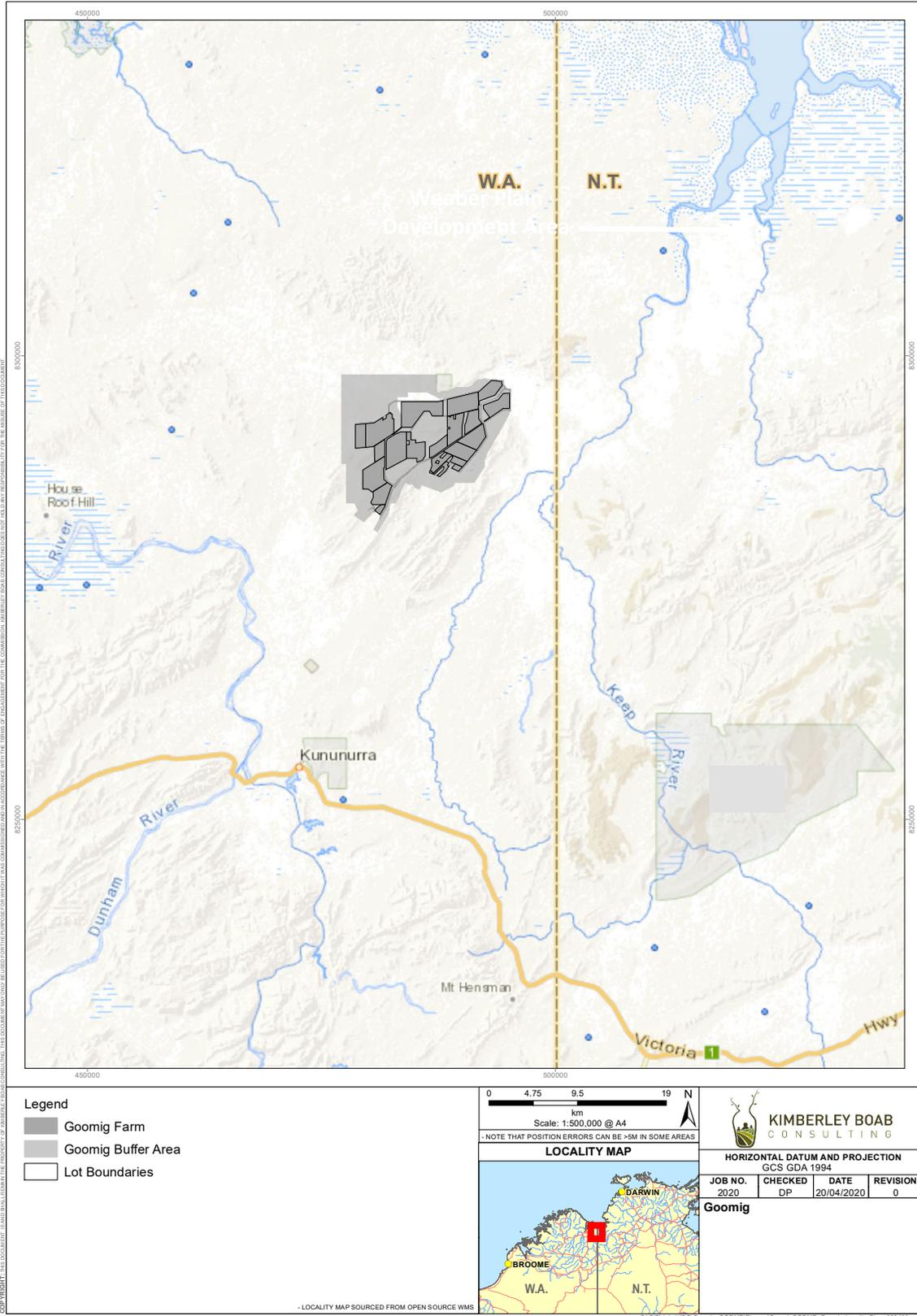
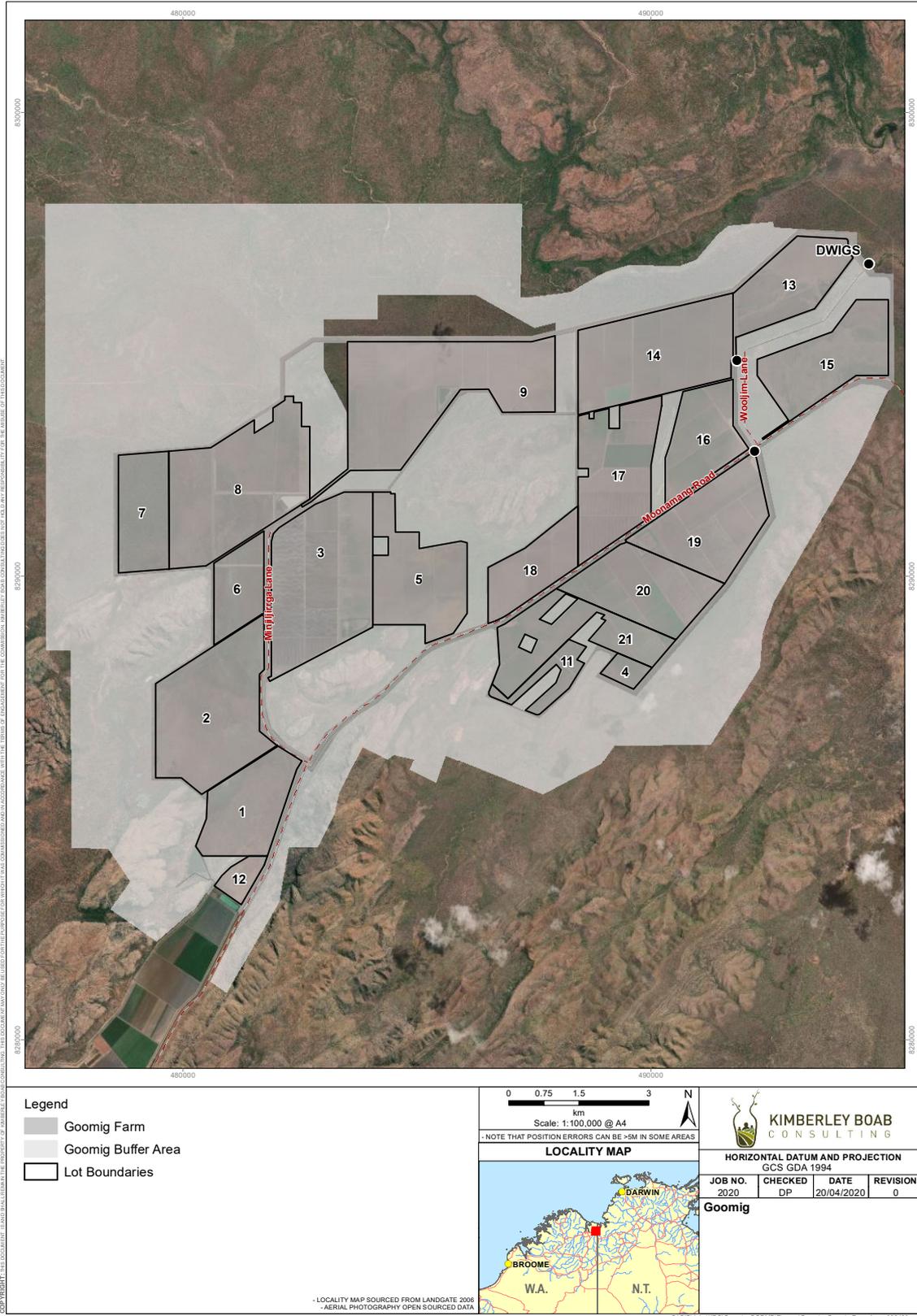


Figure 2 - Development area



## 1.1 Description of activities

The Goomig farm area has been developed for the purpose of conducting irrigated agriculture.

Table 1 – Proponent and project details

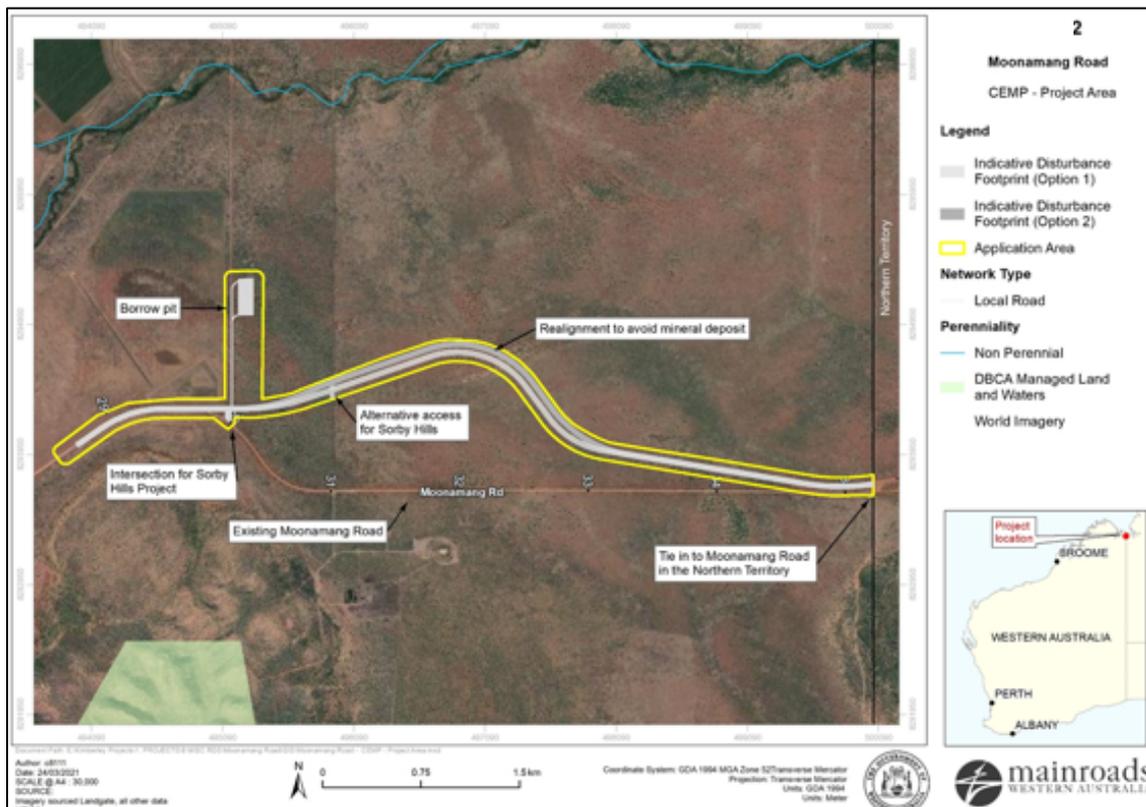
Descriptor / Requirement	Detail
<b>Proponent</b>	Department of Primary Industries and Regional Development
<b>Proponent ABN</b>	18 951 343 745
<b>EPBC Number</b>	Approval 2010/5491
<b>Project name</b>	<i>Weaber Plain Development Project</i>
<b>Project location</b>	North-east of Kununurra, Western Australia
<b>Approval date</b>	13 September 2011
<b>Person accepting responsibility for this report</b>	Eamonn McCabe, Executive Director, Industry and Economic Development
<b>Reporting period dates</b>	1 May 2021 to 30 April 2022
<b>Date of report preparation</b>	November 2021 to June 2022

## 1.2 Current status: development and operation

The majority of the Goomig farm area was cropped during the reporting period. Lot 15 (owned by MG Corporation) remains under development. Clearing has been completed. Tailwater recycling dams have been installed on farmed properties.

Main Roads WA undertook a road extension and realignment in 2021, from the eastern edge of the Goomig development, to the WA-NT border, as illustrated in Figure 3. These works were undertaken in line with Statement 938, issued under the *WA Environmental Protection Act 1986*. The works were assessed as ‘not a controlled action’ when referred for assessment under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC 2017/7856).

Figure 3 - Moonamang Road Extension 2021



### 1.3 Approvals

Associated and nearby approvals are summarised in Table 2. The approvals cited in Table 2 are not the subject of this CAR but are however referenced where necessary. Where relevant, progress and compliance in relation to overlapping conditions and actions have been assessed in unison in this report and in the associated *Ord River Irrigation Area Stage 2 M2 Supply Channel Compliance Assessment Report 2021* (Kimberley Boab Consulting, 2022), prepared for the proponent in relation to Statement 938.

Table 2 - Approvals

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

### 1.4 Methodology

This report has been prepared in line with the *Annual Compliance Report Guidelines* (2014) prepared by the (former) Department of the Environment and Energy, now DAWE. Items previously reported as complete have not been re-assessed.

This report addresses the 12-month period from 1 May 2021 to 30 April 2022. Review criteria adopted are based on the conditions of approval 2010/5491, and follow the formatting and approach established in previous reports. The 2021 compliance assessment report prepared for the Proponent in relation to WA Ministerial Statement 938 (Kimberley Boab Consulting, 2022) supplements this report.

Incorporated into the review 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; and
- The adequacy and effectiveness of the communication to personnel of matters including environmental procedures and changes to practices.

The relevance and applicability of the approved management actions to the current, post-construction (operational) phase of the Goomig development is considered in line with previous audit recommendations. A concurrent full revision of the associated *Environmental Management Plan* (EMP) approved under Ministerial Statement 938 is being undertaken at the request of the WA

Department of Water and Environmental Regulation. The EMP revision is integrated with the IRG-supported review of water-related conditions and management plans established under EPBC 2010/5491.

Observations and evidence gathered during site inspections have informed this report. Site inspections were undertaken in October and November 2021.

The attached *Statement 938 Compliance Assessment Report* for 2021 provides further detail on the Proponent's compliance with specific environmental management requirements associated with the development.

## 2.0 Current Status

### 2.1 Environmental management arrangements

The Goomig farm area lease and Common Area Lease and Infrastructure Management Agreement executed on 21 November 2017. Arrangements have been formally established between the majority land manager (Kimberley Agricultural Investment Pty Ltd [KAI]) and MG Corporation, which owns two of the farming lots within the Goomig area.

The DPIRD remained Proponent during the review period.

### 2.2 Development and operations

KAI and MG Corporation farmed the majority of the Goomig lots during the reporting period. Lot 15 (MG Corp) remains under development. Sub-leasing and joint venture arrangements are in place on some locations in the Goomig farm area.

Figures 4 and 5 provide satellite imagery of the Goomig area during and at the end of the reporting period, noting that the alternative satellite source (Landsat-8) is used in image 5 due to clearer imagery. Figure 6 illustrates the Moonamang Road extension works in mid-November 2021.

Figure 4 - Satellite image: Goomig (and adjacent Knox) Farm Area – November 2021: Prior to wet season

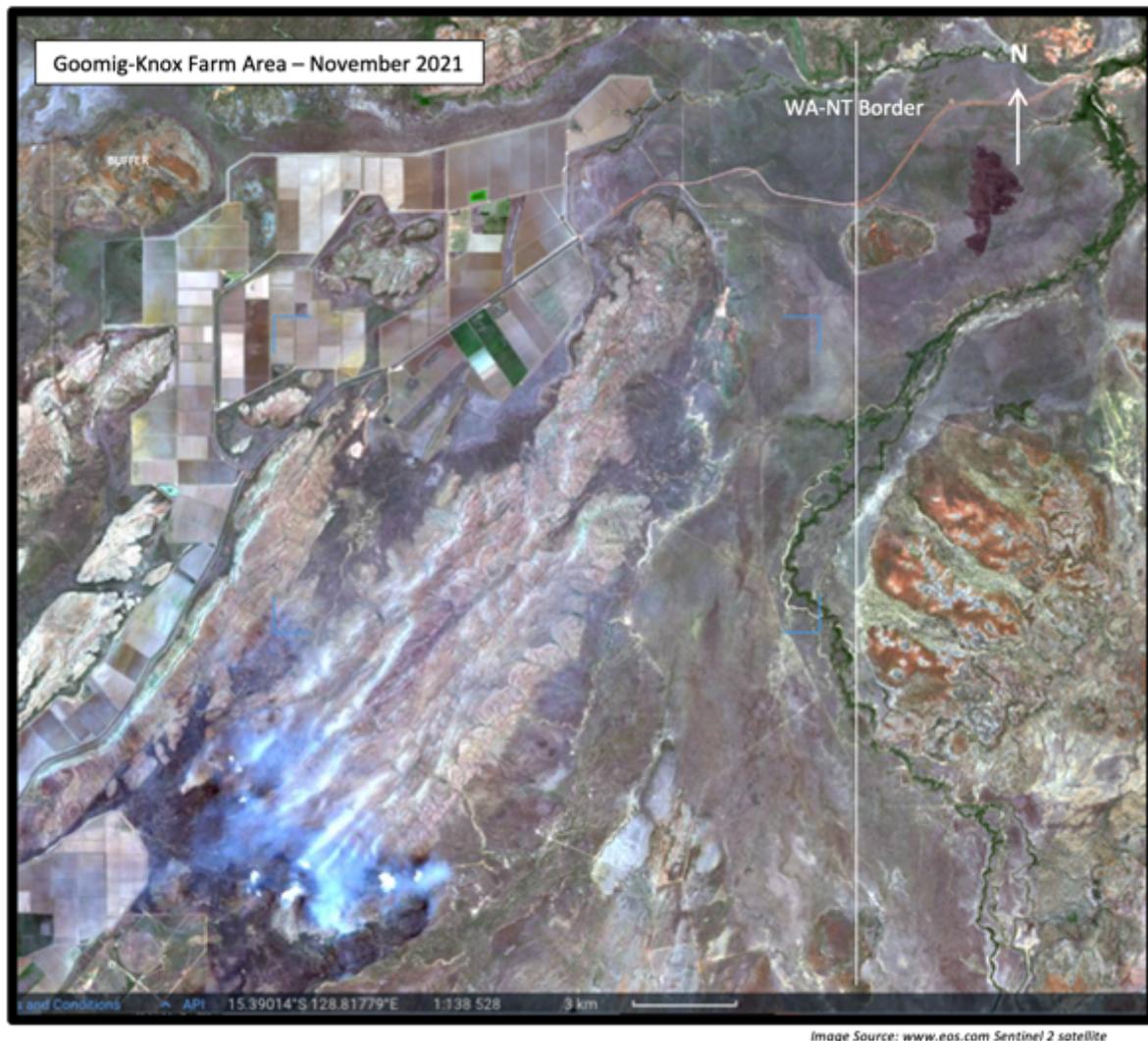


Figure 5 - Satellite image Goomig farm area - April 2022: End of wet season



Image Source: [www.eos.com](http://www.eos.com) Landsat 8

Figure 6 - Moonamang Road Realignment Satellite Image: November 15 2021



Image Source: [www.eos.com](http://www.eos.com) Sentinel-2

## 3.0 Compliance Assessment

### 3.1 Incidents, non-compliances and issues arising

Potential non-compliances identified during this reporting period relate to the implementation of Condition 6, 10, 11 and 15. The identified issues are summarised in Table 3.

Table 3 - Summary of potential non-compliances

Condition		Is the project compliant?	Status at 30 April 2022
6F	Performance standards in relation to the Gouldian Finch population.	Potentially non-compliant	<p><i>This is a new Potential Non-Compliance (PNC).</i></p> <p>The 2021-2022 survey findings are provided in items 2010.5491.2022.003a and 2010.5491.2022.003b. No Gouldian Finches were recorded breeding in the artificial nestboxes within the 2022 breeding season, nor was any recent usage visible.</p> <p>Consultants Biota advised that “the target of no reduction in baseline breeding numbers which can be attributed to Buffer Area management has not been achieved, as no Gouldian Finches were confirmed breeding in the buffer area”. Biota provided recommendations, which DPIRD has commenced acting upon.</p>
10C	A monitoring program in the Keep River pools to be undertaken to ensure water quality and flow does not exceed trigger values.	Potentially non-compliant	<p><i>This is a new PNC.</i></p> <p>Water quality sample results for 15/11/2021, 14/1/2022, 15/1/2022, 28/2/2022 and 16/3/2022 provide wet season information for seasonally accessible pools in the Keep River. Dry season (2021) water quality data for the Keep River have not been observed. Management responses applied where water quality parameters have exceeded trigger levels are not clear.</p>
11B	Management actions to prevent runoff transporting pollutants downstream should the agreed tailwater retention capacity be reached. This must include diversion of on-farm stormwater to irrigation channels in periods of low flow, where there is capacity, as identified by Conditions 11 .G and 11 .H, to ensure pollutants are not transported into the Border Creek and Keep River in low flow periods.	Potentially non-compliant	<p><i>This is a new PNC.</i></p> <p>The identification of Metolachlor (exceeding the trigger level) in the Keep River K3 pool (16/3/2022 – per supporting document 2010.5491.2022.009) and in DW1GS samples taken on 14/1/2022, 15/1/2022, 28/2/2022 and 16/3/2022 needs to be considered in light of this management plan requirement.</p>
11D	Installation of water quality and flow gauging stations capable of sampling first flush discharges at the stormwater outlet from the Development Area and installation of flow gauging stations at Border Creek and Keep River, in consultation with the Independent Review Group. Sampling must include analytes identified in Condition 11.I and must have the required accuracy to measure low flow rates. Gauging stations must be established prior to the commencement of irrigation. For any release of first flush water, monitoring must be conducted more than once a day and for any other stormwater	Potentially non-compliant	<p><i>This PNC is retained from previous years.</i></p> <p>The DW1 Gauging Station (DW1GS) was not functioning as designed during the reporting period. An independent review of the station’s functionality was completed in June 2020. At the end of the reporting period, the DW1GS had improved functionality but telemetry and access remain problematic. The Proponent and KAI continue to work towards rectifying the DW1GS issues.</p> <p>The IRG has noted that achieving functionality in this critical monitoring</p>

Condition		Is the project compliant?	Status at 30 April 2022
	flows monitoring must be conducted at least once per day. Automated sampling techniques may be utilised.		infrastructure is essential, and has expressed frustration at the delays in achieving a working system. The 2020 AER comment remains: <b>A properly functioning DW1 Gauging Station is essential for the monitoring of normal season and risk events and to support the OSWM calculations required under Condition 11L. Accurate risk assessment and management responses are restricted without a functioning DW1GS.</b>
11L	An Operational Surface Water Model (OSWM) (that incorporates the outcomes of Conditions 11.A, 11.G and 11.H, and the requirements of 11.J and 11.K) to minimise discharges of stormwater and groundwater into the Border Creek and Keep River and ensure that all flow rules are complied with. A framework of the OSWM must be provided prior to commencement of irrigation and a full model, which includes updated monitoring results, provided within 12 months of the commencement of irrigation. The OSWM must be updated on a seasonal basis.	Potentially non-compliant	<p><i>This PNC is retained from 2021.</i></p> <p>A simplified Operational Surface Water Model has been incorporated into the revised (but not finalised) SGDMP, along with early warning criteria.</p> <p>As noted under item 11D, <b>a properly functioning DW1 Gauging Station is essential for the monitoring of normal season and risk events and to support the OSWM calculations required under Condition 11L. Accurate risk assessment and management responses are restricted without a functioning DW1GS.</b></p> <p>The OSWM cannot be effectively used in risk assessment and management until DW1GS data can inform decision-making in a timely manner.</p>
11M	Contingency measures should water quality and flow trigger values be exceeded or there are impacts on the health of threatened species as identified in aquatic fauna monitoring results in Condition 10.G. This must include the ceasing of discharge of stormwater and groundwater to Border Creek and Keep River, implementation of a high intensity (at least daily) water quality sampling program, release of fresh irrigation water to flush the system and changes to farm practices such as reducing or ceasing the use of fertilisers and chemicals.	Potentially non-compliant	<p><i>This is a new PNC.</i></p> <p>Contingency measures are included in the approved and draft revised SGDMP. Supporting document 2010.5491.2022.009 (Goomig 2022 wet season run off and Keep River test results) indicates trigger exceedances for EC and Total N in the K2 pool, and for Metolachlor in the K3 pool. It is unclear how this information was used to inform management responses.</p>
15	If the person taking the action wishes to carry out any activity otherwise than in accordance with any of the management plans as specified in the conditions, the person taking the action must submit to the Department for the Minister's written approval a revised version of that management plan. The varied activity shall not commence until the Minister has approved the varied management plan in writing. The Minister will not approve a varied management plan unless the revised management plan would result in an equivalent or improved environmental outcome over time. If the Minister approves the revised management plan, that management plan, must be implemented in place of the management plan originally	Potentially non-compliant	<p><i>This PNC is retained from 2021.</i></p> <p>The Proponent is generally undertaking monitoring under conditions 10, 11 and 12 in accordance with recommended changes to monitoring regimes which have been supported by the IRG. Where monitoring is being delivered according to the IRG-supported approach (which are informed by actual on-the-ground arrangements and not pre-development assumptions, as were the 2012-approved management plans) the performance in 2021-2022 has been assessed as compliant.</p> <p>However, revised management plans have <b>not</b> been finalised and submitted to the Department. On this basis, the proponent is potentially non-compliant with Condition</p>

Condition	Is the project compliant?	Status at 30 April 2022
approved.		<p>15. If the Department does not consider the revised monitoring regimes which have been supported by the IRG to be acceptable, the proponent is also potentially non-compliant with various elements of Condition 11 and Condition 12. It is essential that the management plans be finalised and submitted for approval as soon as possible, to clear up any discrepancies between the originally approved plans and the current arrangements.</p> <p>At the end of the compliance period, the Proponent was preparing a project plan in collaboration with Murdoch University to (among other things) build and verify a hydrodynamic model of the Keep River using flow, survey and chemistry data to assess mitigation and management options. This project will enable the revised Stormwater and Groundwater Discharge Management Plan to be finalised. Critically, the project will help determine the conditions under which water can be released from water storages and when event-based monitoring should commence and can cease.</p>

### 3.2 Corrective measures for non-compliances

#### 3.2.1 Gouldian Finch performance standards (Condition 6F)

Gouldian Finch nest box replacement will be completed in 2022, informed by the findings and recommendations of (new) consultants Biota. Surveys to be undertaken in the coming seasons will indicate whether performance of the buffer management activity is improving.

#### 3.2.2 Keep River Pools monitoring program (Condition 10C)

Dry season water quality monitoring is required to be undertaken as stipulated in the Aquatic Fauna Management Plan and the Stormwater and Groundwater Management Plan.

#### 3.2.3 Management actions to prevent downstream transport of nutrients (Condition 11B)

Water quality monitoring data should be used to inform the delivery of appropriate management actions in response to water quality triggers being reached. A properly functioning DW1GS and OSWM calculator will assist in the prediction and prevention of downstream risks.

#### 3.2.4 Stormwater outlet monitoring: DW1 Gauging Station (Condition 11D)

A properly functioning DW1 Gauging Station is essential for the monitoring of normal season and risk events and to support the OSWM calculations required under Condition 11L. Accurate risk assessment and management responses are restricted without a functioning DW1GS. Ensuring the DW1GS meets its design capability is essential and urgent.

#### 3.2.5 Operational Surface Water Model (Condition 11L)

As noted previously, without a fully functioning and communicating DW1GS, the dilution calculator offered as a risk assessment tool through the OSWM cannot be utilised.

### **3.2.6 Contingency measures – surface water (Condition 11M)**

As indicated in relation to Conditions 10C, 11B, 11D and 11L, monitoring data should inform the application of contingency measures. When monitoring is incomplete, the ability to adequately apply contingency actions is restricted.

### **3.2.7 Management Plans**

In order to achieve full compliance in relation to monitoring regimes, completion of the revised management plans and submission of these to the Department for approval is essential and should be completed as a matter of urgency.

## **3.3 New environmental risks**

As identified in 2021, the progressive transition towards ‘wet season cropping’ on Goomig, via the cultivation of cotton crops commencing in late January / early February each year, provides further justification for a fully functioning DW1GS to monitor stormwater activity and trigger management actions or further monitoring (for example, additional water quality samples if required). The IRG continues to review the annually-updated farm chemical list and advise the proponent and farmers on monitoring requirements to ensure new chemical regimes are included in the testing arrangements. The identification of herbicide Metolachlor in the Keep River in early 2022 is indicative of the new risk arising from wet season cropping. It is therefore essential that monitoring (DW1GS) and predictive (OSWM) tools are both functioning and used with water quality data to inform management responses which decrease downstream risk.

## 4.0 Compliance and Status Table

Table 4 summarises progress and delivery in relation to EPBC 2010/5491 conditions.

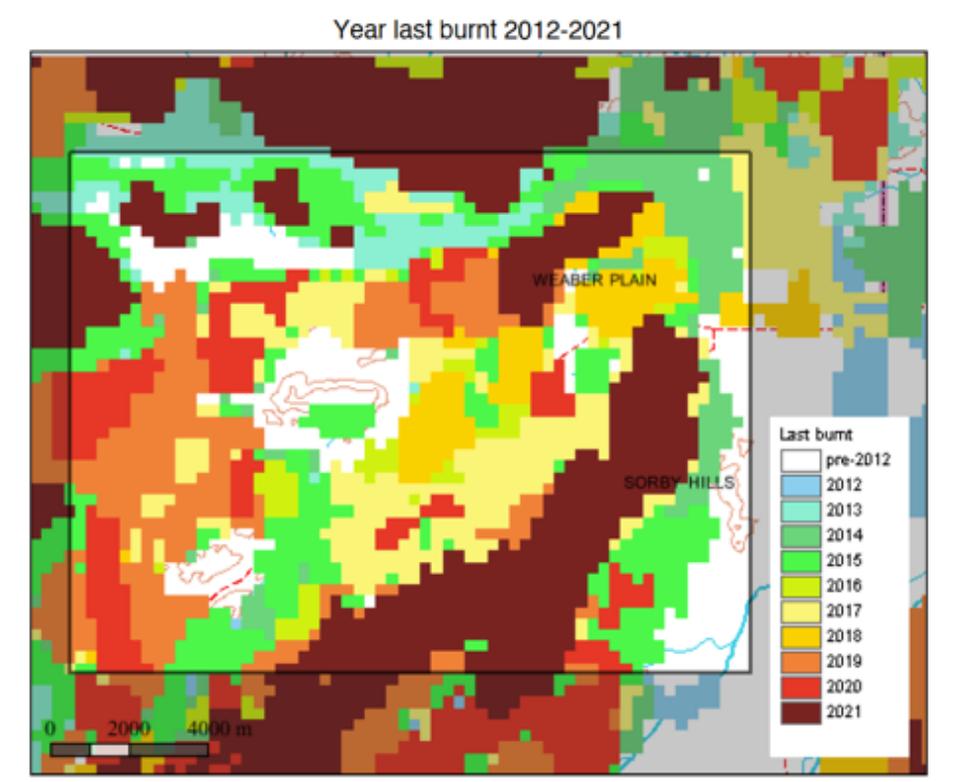
Colour-coding has been applied to the reporting as follows:

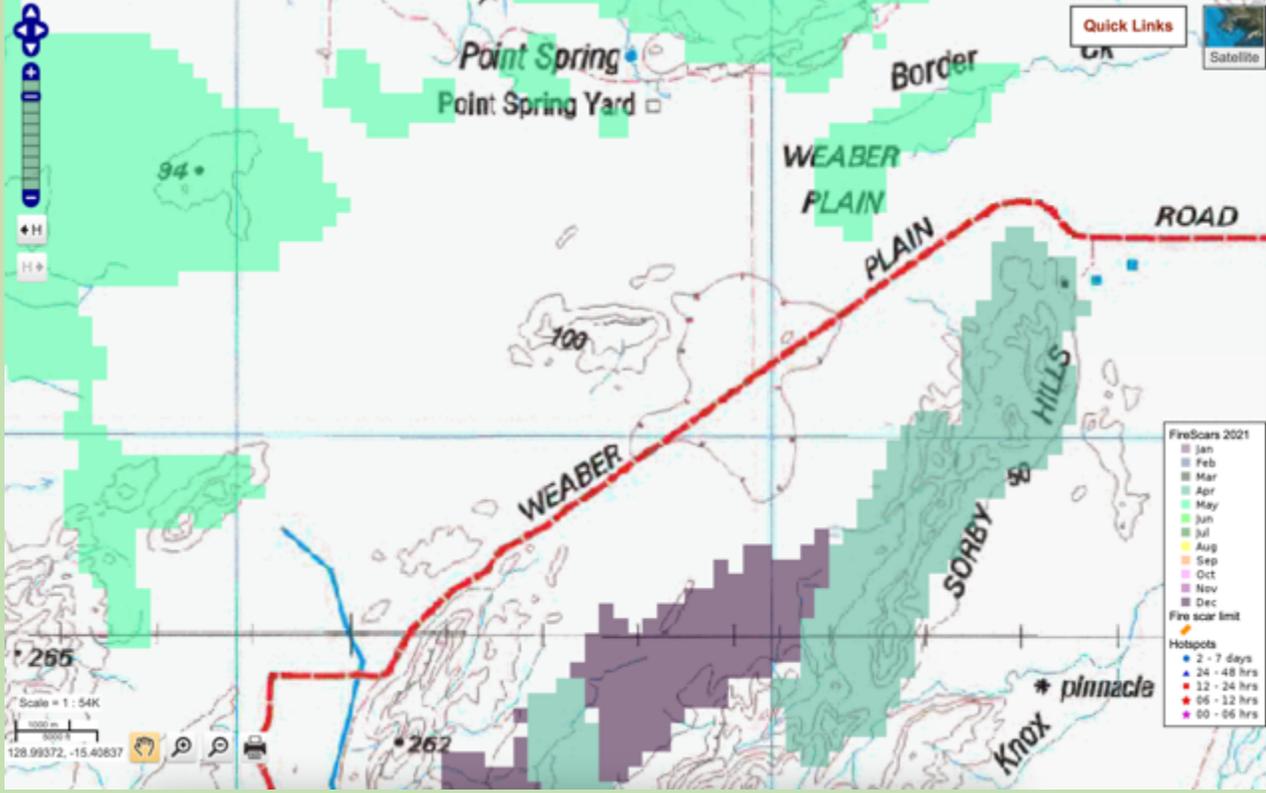
<b>Compliant</b>
<b>Potentially non-compliant</b>
<b>Non-compliant</b>
<b>Completed</b>
<b>Unable to assess</b>
<b>Not Applicable</b>

Table 4 - EPBC 2010-5491 Annual Environment Report

Condition number / reference	Condition	Is the project compliant?	Evidence / comments
1	Within 30 days after the commencement of the action, the person taking the action must advise the Department in writing of the actual date of commencement.	Completed	Completed in a previous reporting period.
2	The person taking the action must maintain accurate records substantiating all activities associated with or relevant to the conditions of approval, and make them available upon request to the Department. Such records may be subject to audit by the Department or an independent auditor in accordance with section 458 of the EPBC Act, or used to verify compliance with the conditions of approval. Summaries of audits will be posted on the Department's website. The results of audits may also be publicised through the general media.	Compliant	<p>Records have been retained through DPIRD and KAI.</p> <p>Appendix A summarises evidence utilised to inform this report. Further, Part B of Appendix A lists the evidence and reports retained to confirm compliance with the detailed Environmental Management Plan (EMP) required under Statement 938 issued under the WA <i>Environmental Protection Act 1986</i>.</p> <p><b>SUPPORTING DOCUMENTATION:</b> 2010.5491.2022.001 (also attached as Appendix B).</p>
3	Within three months of every 12 month anniversary of the commencement of the action, the person taking the action must publish a report on their website addressing compliance with each of the conditions of this approval, including implementation of any management plans as specified in the conditions. Documentary evidence providing proof of the date of publication and non-compliance with any of the conditions of this approval must be provided to the Department at the same time as the compliance report is published.	Compliant	<p>The annual report for the period 1 May 2020 to 30 April 2021 is available at <a href="http://www.drd.wa.gov.au/projects/Agriculture/Pages/Ord-East-Kimberley-Expansion.aspx">http://www.drd.wa.gov.au/projects/Agriculture/Pages/Ord-East-Kimberley-Expansion.aspx</a>. Earlier reports remain on the website, as do the EMP annual Compliance Assessment Reports relating to Statement 938. The report was emailed to DAWE on 13 July 2022.</p> <p><b><i>This action did not meet the timing requirement of the condition</i></b> but was nonetheless completed, and it is thus considered that the intent has been met, given that previous AER's and the annual EMP compliance reports remain on the DPIRD website for public review.</p>
4	The person taking the action must provide a schedule of works to the Department prior to the commencement of the action.	Completed	Completed in a previous reporting period.
5	To avoid and/or to minimise impacts on listed threatened and migratory species, the person taking the action must:		
5A	Not clear more than 9,375 hectares of vegetation (as described in the Supplementary Environmental Impact Statement);	Compliant	A total of 7,416.21ha on the Weaber Plain have been cleared for irrigated agriculture since commencement of the project, with an additional 914.12ha cleared for infrastructure. Total cleared area is 8,330.33ha. Roadworks (the Moonamang Road realignment) were completed during the reporting period however these works were undertaken on a previously cleared Goomig infrastructure corridor. Refer to 2010.5491.2022.001 for further information on the roadworks.

Condition number / reference	Condition	Is the project compliant?	Evidence / comments
5B	Establish a Buffer Area of at least 11,470 hectares (as shown in Figure 2 of the Supplementary Environmental Impact Statement), to be managed for conservation in perpetuity;	Completed	No change. Buffer was established in a previous reporting period. The former proponent, the Minister for State Development, reported a buffer area of 11,546.1021ha in the 2016-17 Annual Environment Report relating to EPBC 2010/5491. The extent of the buffer can be observed in Figure 2 of this report.
5C	Not clear any Gouldian Finch breeding habitat that is known to have been utilised by the Gouldian Finch	Compliant	No clearing of Gouldian Finch breeding habitat has occurred, as reported previously. No further clearing occurred in 2021-2022. <i>Refer to Figure 7 under Condition 6, below, which indicates Gouldian Finch breeding habitat (retained in buffer).</i>
5D	Use no more than 120 GL of water per water year from the Ord River System for irrigation in the development area;	Compliant	Kimberley Agricultural Investment Pty Ltd (KAI) reported 2020 irrigation water use at 35.588GL, including distribution losses. Of this, 34.212GL was released to farms through offtake meters. Refer to <i>Goomig Surface Water Report 2021</i> for further information. <b>SUPPORTING DOCUMENTATION:</b> 2010.5491.2022.002
5E	Discharge groundwater only in the K1 pool or downstream in the Keep River estuary (as identified in Figure 5 of the Supplementary Environmental Impact Statement).	Not applicable	Discharge of groundwater is not yet required.
6	In order to protect the Gouldian Finch, the person taking the action must prepare a Gouldian Finch Conservation Plan which must include the following:	Compliant	The Gouldian Finch Conservation Plan was finalised and approved in a previous reporting period. The Plan includes the required elements.
6A	A monitoring program that includes i. baseline surveys of the quality and distribution of Gouldian Finch feeding habitat in the Buffer Area; ii. annual monitoring of breeding populations, including timing and reproductive outputs; iii. annual wet season monitoring of foraging activity in critical wet-season feeding areas in close proximity to breeding areas; iv. mapping and annual monitoring of the phenology and productivity of wet season feeding habitat and assessment of their use by Gouldian Finches.	Compliant	Baseline surveys were completed in a previous reporting period.  Biota (environmental consultants) were engaged to undertake the Gouldian Finch surveys in 2021, with surveys for 2022 and 2023 included in the contract.  DPIRD contracted Save the Gouldian Fund (STGF) to construct and replace the Gouldian Finch Goomig buffer nestboxes, in partnership with Miriuwung Gajerrong Rangers. Evidence item 2010.5491.2022.003a provides the breeding review for season 2021-2022. The required foraging report was still in draft at the time of preparation of this AER.  <b>SUPPORTING DOCUMENTATION:</b> <b>2010.5491.2022.003a Gouldian Finch Monitoring Nesting Activity 2021-2022</b> <b>2010.5491.2022.003b Goomig Gouldian Finch Foraging and Grass Assessment 2022</b>
6B	A Fire Management Program developed and implemented to protect and enhance Gouldian Finch feeding and breeding habitat. The Fire Management Program must incorporate relevant findings from fire	Compliant	Fire management throughout the Weaber Plain area has continued in mosaic form through the reporting period. The <i>Goomig Farm Area and Buffer Fire History Report 2012-2021</i> (generated from the Firenorth website) documents the reduction in the frequency and extent of burning in the project area in the last decade. The 'year since last burn' image pasted below (Figure 7), taken from this

Condition number / reference	Condition	Is the project compliant?	Evidence / comments
	<p>management projects such as, but not limited to, the Ecofire project conducted in the northern and central Kimberley (Rangelands NRM 2011, <a href="http://www.rangelandswa.com.au/pages/150/ecofire">http://www.rangelandswa.com.au/pages/150/ecofire</a>) and must be developed in close consultation with a Gouldian Finch expert.</p>		<p>report, centred on the development area, clearly indicates that ‘blanket burns’ across the Weaber Plain are not occurring. Figure 8 (Firescar by month 2021) indicates burning distribution during the reporting season. The firescar south of Weaber Plain (Moonamang) Road was from fires that occurred in June-July and November-December 2021. Biota (2022) reported that half of the Gouldian Finch grass study plots had low to medium evidence of fire. About 20 percent of the plots had high to extreme evidence of fire impact in December 2021. Biota observed that most burnt areas were recovering quickly by March 2022, following wet season rains.</p> <p><b>SUPPORTING DOCUMENTATION:</b> 2010.5491.2022.004</p>
6B	<p><b>Figure 7 – Year last burnt 2012-2021</b></p>		 <p>Source: <a href="http://www.firenorth.org.au/nafi3/">www.firenorth.org.au/nafi3/</a></p>

Condition number / reference	Condition	Is the project compliant?	Evidence / comments
6B	<p>Figure 8 – Weaber Plain (Goomig) firescar by month 2021</p>  <p>Source: <a href="http://www.firenorth.org.au/nafi3/">www.firenorth.org.au/nafi3/</a></p>		
6C	<p>Widening of all vegetation corridors indicated in Figure 2 of the Supplementary Environmental Impact Statement (including between Lots 5 and 18 and Lots 9 and 14) to a minimum width of 400m.</p>	Completed	<p>The widening of vegetation corridors was completed in a previous reporting period. These corridors have been maintained as buffer areas.</p>
6D	<p>Avoidance of clearing any breeding habitat that has been utilised by the Gouldian Finch, as identified in Figure 1 of the Gouldian Finch Management Plan.</p>	Compliant	<p>No clearing of Gouldian Finch breeding habitat has occurred. Breeding habitat is retained in buffers and not cleared, per Figure 9.</p>

Condition number / reference	Condition	Is the project compliant?	Evidence / comments
	<p><b>Figure 9 – Gouldian Finch Breeding Habitat Areas</b></p> 		
6E	Salvaging of breeding hollows that are cleared for relocation in the Buffer Area and results of their use recorded as part of the monitoring program.	Compliant	<p>The salvaging and relocation of breeding hollows for installation as Gouldian Finch nest boxes was undertaken in 2013. Nest box locations are generally not disclosed in order to avoid buffer intrusion by ornithology tourists.</p> <p>The Gouldian Finch Breeding Report (2020) noted the nestboxes were in disrepair. DPIRD committed to repairing the nestboxes in 2021/2022. Save the Gouldian Fund was contracted to replace the nest boxes, with approximately 50% replaced (in conjunction with Save the Gouldian Fund) in October 2021. The remainder will be replaced in 2022.</p>

Condition number / reference	Condition	Is the project compliant?	Evidence / comments
6F	Performance standards in relation to the Gouldian Finch population.	Potentially non-compliant	<p>The 2021-2022 survey findings are provided in items 2010.5491.2022.003a and 2010.5491.2022.003b. No Gouldian Finches were recorded breeding in the artificial nestboxes within the 2022 breeding season, nor was any recent usage visible.</p> <p>Consultants Biota advised that “the target of <i>no reduction in baseline breeding numbers</i> which can be attributed to Buffer Area management has not been achieved, as no Gouldian Finches were confirmed breeding in the buffer area”. Biota provided recommendations, which DPIRD has commenced acting upon.</p> <p><b>SUPPORTING DOCUMENTATION:</b> 2010.5491.2022.003a Gouldian Finch Monitoring Nesting Activity 2021-2022 2010.5491.2022.003b Goomig Gouldian Finch Foraging and Grass Assessment 2022</p>
6G	Adaptive management triggers should performance standards not be met and contingency measures to be implemented if this occurs.	Compliant	<p>DPIRD is implementing the recommendations made by Biota in relation to the Gouldian Finch performance standards.</p> <p><b>SUPPORTING DOCUMENTATION:</b> 2010.5491.2022.003a Gouldian Finch Monitoring Nesting Activity 2021-2022 2010.5491.2022.003b Goomig Gouldian Finch Foraging and Grass Assessment 2022</p>
6H	An annual audit and review of the effectiveness of management measures, operating controls and implementation of any required improvements to management conditions.	Compliant	<p>Biota has reviewed the achievement of performance standards and made recommendations for management, per items 2010.5491.2022.003a and 2010.5491.2022.003b.</p> <p><b>SUPPORTING DOCUMENTATION:</b> 2010.5491.2022.003a Gouldian Finch Monitoring Nesting Activity 2021-2022 2010.5491.2022.003b Goomig Gouldian Finch Foraging and Grass Assessment 2022.</p>
6I	Protocols and timelines for review and reporting to the Department. The approved Gouldian Finch Conservation Plan must be implemented.	Compliant	<p>Protocols and timelines for reporting to the Department were incorporated into the <i>Gouldian Finch Conservation Plan</i> which was approved in 2012. Management actions from the <i>Gouldian Finch Conservation Plan</i> have continued to be implemented. Buffer management and addition of water to the Goomig environment via irrigation infrastructure continues to support the Gouldian Finch population as evidenced by past monitoring. DPIRD is implementing Biota's (2022) recommendations with a priority on replacing and repairing artificial nest boxes to improve breeding outcomes in the identified breeding areas and continually removing cattle that have entered the buffer area from the neighbouring pastoral station.</p> <p><b>SUPPORTING DOCUMENTATION:</b> 2010.5491.2022.003a Gouldian Finch Monitoring Nesting Activity 2021-2022 2010.5491.2022.003b Goomig Gouldian Finch Foraging and Grass Assessment 2022</p>
7	In order to protect listed threatened species, the	Compliant	The <i>Buffer Management Plan</i> was finalised and approved in a previous reporting period.

Condition number / reference	Condition	Is the project compliant?	Evidence / comments
	person taking the action must prepare a Buffer Management Plan (BMP), which must include:		<p>Per Appendix A (Statement 938 and EMP Compliance Assessment Report), the intent of the buffer management and monitoring actions has been met during the reporting period. However, in relation to Gouldian Finch activity, Biota (2022) noted that “it is not possible to clearly determine whether the target for grass productivity and phenology (identified in the GFCP) of “no reduction in baseline phenology and productivity which can be attributed to Buffer Area Management” is being met this season due to the seasonal impact of two fires that affected the study area in 2021, as changes in grass coverage and phenology observed this season are likely to be short term effects of the fires” (Biota, 2022, p10).</p> <p><b>SUPPORTING DOCUMENTATION:</b>            2010.5491.2022.001 Statement 938 and EMP Compliance Assessment Report 2021            2010.5491.2022.003b Goomig Gouldian Finch Foraging and Grass Assessment 2022</p>
<b>7A</b>	Vegetation and fauna surveys and mapping of the Buffer Area (shown in Figure 2 of the supplementary Environmental Impact Statement). Fauna surveys must be targeted for EPBC Act listed threatened species that are likely to occur in the Buffer Area. The program must be developed in consultation with WA DEC, with methodologies approved by the Department. The person taking the action must provide results of the survey program to the Department, including maps showing the location of any breeding, nesting or denning habitat identified in the Buffer Area. The survey program must include the endangered Northern Quoll ( <i>Dasyurus hallucatus</i> ), the vulnerable Red Goshawk ( <i>Erythrotriorchis radiates</i> ) and the vulnerable Northern Shrike-tit ( <i>Falcunculus frontatus whiteii</i> ). Surveys must be completed prior to 31 December 2012.	Completed	Completed in a previous reporting period.
<b>7B</b>	Details of tenure and management arrangements of the Buffer Area that provides assurance that the area will be conserved and managed in perpetuity.	Completed	Completed in a previous reporting period.
<b>7C</b>	Ongoing management practices that will be applied to the Buffer Area to maximise benefits to listed threatened species.	Compliant	Ongoing management practices are incorporated into the approved Buffer Management Plan. Detailed compliance with monitoring and management obligations is included in evidence item 2010.5491.2022.001 – annual Compliance Assessment Report prepared in relation to Statement 938. DPIRD is committed to improve buffer management including ensuring the continual removal of cattle from the buffer area, determining addressing the cause of late dry season fire in the buffer area.

Condition number / reference	Condition	Is the project compliant?	Evidence / comments
			<b>SUPPORTING DOCUMENTATION:</b> 2010.5491.2022.001 Statement 938 and EMP Compliance Assessment Report 2021
7D	Methods to control human disturbance of the Buffer Area, including restriction of vehicular access.	Compliant	Methods to control human disturbance in the buffer are included in the approved Buffer Management Plan. Signage remains installed at track entries. Natural and physical barriers (for example, rough terrain and irrigation drains respectively) restrict human access.
7E	Regular and ongoing inspection of the Buffer Area for weeds, plant pathogens and pest animals and methods to prevent the introduction and spread and provide for quick control of weeds, plant pathogens and pest animals in the Buffer Area.	Compliant	Regular and ongoing inspections occur during monitoring events including bore monitoring required under Condition 12 (Groundwater Management Plan).
7F	Fire management of the Buffer Area to maximise benefits to listed threatened species.	Compliant	Refer to condition 6B.
7G	Methods to minimise the impacts of construction activities on the Buffer Area.	Compliant	Construction is now entirely undertaken on-farm, with impact on the buffer limited to the last remaining borrow pit (Area 11), which will remain in use for the foreseeable future. Designated tracks and site boundaries are evident.
7H	Rehabilitation of disturbed portions of the Buffer Area to benefit listed threatened species.	Completed	Rehabilitation of construction tracks and the former site compound was completed by LandCorp under the previous proponent.
7I	Responsibilities and provision of resources for the ongoing management of the Buffer Area.	Compliant	DPIRD remains responsible for buffer management as Proponent. Operational buffer management is undertaken by KAI.
7J	Protocols and timing of review and reporting to the Department.	Compliant	Protocols and timing are included in the approved <i>Buffer Management Plan</i> .
7K	The approved Buffer Management Plan must be implemented.  Note: To avoid doubt, if a condition of another approval held by the proponent requires a Buffer Management Plan, the proponent may simultaneously meet the relevant requirements of both conditions by submitting a single plan.	Compliant	The attached <i>Statement 938 and EMP Compliance Assessment Report</i> (Appendix A) identifies potential minor non-conformances with buffer monitoring requirements, however overall the assessment was made that the Proponent is compliant with the Buffer Management Plan during the reporting period. This assessment is made on the basis that vegetation condition monitoring, exclusion of cattle and maintenance of fences has occurred in the buffer. Further, mosaic fire management in the buffer (refer to Condition 6B) has continued in 2020-21, as has pest and weed control (refer to Condition 8). The Proponent and KAI continue to retain photographic and documentary evidence of buffer condition and regular inspections. Human access remains controlled, with KAI managing the buffer. DPIRD has reaffirmed its commitment to continually review and improve buffer area management, with priority on Gouldian Finch breeding habitat, managing fire risk and removing cattle from the buffer area.  <b>SUPPORTING DOCUMENTATION:</b> 2010.5491.2022.001 Statement 938 and EMP Compliance Assessment Report 2021
8	In order to protect listed threatened species, the	Compliant	Per Appendix A (Statement 938 and EMP Compliance Assessment Report 2021), weed, plant pathogen

Condition number / reference	Condition	Is the project compliant?	Evidence / comments
	person taking the action must undertake the action in accordance with the Weed, Plant pathogen and Pest Management Plan approved under the Environmental Protection Act 1986, and any amendments to that plan. The person taking the action must provide an annual report to the Department on compliance with the plan, with the first report submitted not later than 12 months after commencement of the action.		and pest management (WPPPM) actions have been undertaken in the buffer. While the intent of the WPPPM plan requirements was met in 2021, it was noted in the Statement 938 Compliance Assessment Report that one farm lot (Lot 15) contains Parkinsonia, a Weed of National Significance, which must be controlled. As this lot is under development (by MG Corporation), it is expected the weed will be removed as farming activity increases.  <b>SUPPORTING DOCUMENTATION:</b> 2010.5491.2022.001 Statement 938 and EMP Compliance Assessment Report 2021
9	The person taking the action must appoint an Independent Review Group to review hydrological aspects of the action and associated impacts on EPBC Act listed threatened species. The Independent Review Group must be established prior to the submission of the Aquatic Fauna Management Plan, Stormwater and Groundwater Discharge Management Plan and Groundwater Management Plan (referred to in Conditions 10, 11 and 12) to the Minister for approval. The Independent Review Group must be established according to the following requirements:	Compliant	The Independent Review Group (IRG) was originally established in 2011. The IRG met on 6 April 2021 (immediately prior to the current reporting period), with emailed updates to the IRG on matters of importance in August and September 2021.  The IRG did not meet during the reporting period. A meeting is scheduled for August 2022.  <b>SUPPORTING DOCUMENTATION:</b> 2010.5491.2022.005 2010.5491.2022.006 2010.5491.2022.007
9A	The group must be funded, resourced and managed by the person taking the action.	Compliant	DPIRD resources the IRG.
9B	The group must consist of independent scientific and technical experts, of whom at least one must be a Glyphis and Pristis expert and two must be technical experts with at least 5 years' experience in northern Australian surface water and groundwater hydrology. The members of the group and any subsequent changes must be approved by the Minister.	Compliant	There were no changes to the IRG membership during the reporting period. The most recent change was the inclusion of Dr David Morgan, as reported in the 2019 Annual Environment Report.
9C	Terms of Reference for the group must be prepared by the person taking the action and submitted for approval by the Minister. The Terms of Reference must include the frequency of proposed meetings and chairing and quorum arrangements. The Terms of Reference must be approved by the Minister in writing prior to the submission of the Aquatic Fauna Management Plan, Stormwater and Groundwater	Compliant	No changes to the IRG Terms of Reference.

Condition number / reference	Condition	Is the project compliant?	Evidence / comments
	Discharge Management Plan and Groundwater Management Plan, to the Minister for approval.		
9D	The group must provide advice on any substantive changes to, or reviews of the Aquatic Fauna Management Plan, Stormwater and Groundwater Discharge Management Plan and Groundwater Management Plan (referred to in Conditions 10, 11 and 12).	Compliant	The stormwater and groundwater management plans continued to be reviewed over the reporting period, following their previous consideration by the IRG in 2020-2021. No further substantive change reviews were requested of the IRG during the reporting period.
9E	The group must assess any exceedance of trigger values and advise changes as required.	Compliant	The IRG reviewed season 2020-2021 trigger value exceedances at its April 2021 meeting. As the IRG did not meet during 2021-2022, trigger exceedances will be reviewed at its August 2022 meeting.
9F	The Minister may seek advice from the review group at any time. Specific matters identified through such advice may need to be addressed in the Management Plans. Where such advice is sought the proponent would be provided with opportunity to submit information and respond to the specific matters identified, in order to ensure the Management Plans are based on the best available information.	Not applicable	Advice was not sought by the Minister during the current reporting period.
10	In order to protect listed threatened species in the Keep River, the person taking the action must prepare an Aquatic Fauna Management Plan (AFMP), in consultation with the WA DEC and the Independent Review Group. The AFMP must be submitted for approval by the Minister. Clearance of farm lots must not be undertaken until the AFMP is approved. The AFMP must include:	Compliant	The <i>Aquatic Fauna Management Plan</i> was approved in a previous reporting period and contains the required elements as stipulated under Condition 10.
10A	A targeted, non-lethal baseline surveying program for listed threatened species that are likely to occur in the Keep River. This must include the critically endangered Speartooth Shark ( <i>Glyphis glyphis</i> ), the endangered Northern River Shark ( <i>Glyphis garricki</i> ), the vulnerable Dwarf Sawfish ( <i>Pristis clavata</i> ) and the vulnerable Freshwater Sawfish ( <i>Pristis microdon</i> ). The methodology of the baseline surveying program must be developed in consultation with the Independent	Completed	Baseline studies of aquatic fauna in the Keep River were completed in a previous reporting period.

Condition number / reference	Condition	Is the project compliant?	Evidence / comments
	Review Group. Surveys must be conducted over a period of 3 years and must be undertaken in the four Keep River pools (K1, K2, K3 and K4) and at least 3 sites in the Keep River Estuary.		
10B	Details of water quality and flow requirements, including relevant downstream environmental quality parameters, in accordance with ANZECC guidelines.	Compliant	The Keep River pools monitoring program has been reviewed and revised, with the revised draft Stormwater and Groundwater Discharge Management Plan (SGDMP) presented to the IRG for review at its May 2020 meeting. The revised draft SGDMP includes recommended water quality monitoring requirements, and DW1GS flow triggers. Revised ANZECC 99% species protection levels for farm chemicals are being utilised in risk assessment and water quality data reviews. The current revision of the SGDMP follows an outcomes-based approach, in line with the WA EPA guidelines for environmental management plans. The revision has not been finalised and submitted to the DAWE for delegated approval.
10C	A monitoring program in the Keep River pools to be undertaken to ensure water quality and flow does not exceed trigger values.	Potentially non-compliant	Water quality sample results for 15/11/2021, 14/1/2022, 15/1/2022, 28/2/2022 and 16/3/2022 provide wet season information for seasonally accessible pools in the Keep River. Dry season (2021) water quality data for the Keep River have not been observed. Management responses applied where water quality parameters have exceeded trigger levels are not clear. <b>SUPPORTING DOCUMENTS</b> 2010.5491.2022.002 2010.5491.2022.008 2010.5491.2022.009 2010.5491.2022.010 2010.5491.2022.011 2010.5491.2022.012
10D	Details of an outcome-based risk assessment which utilises data collected during the baseline monitoring program to determine the potential for risk to listed species at an individual and local population level.	Compliant	An outcomes-based risk assessment was completed in a previous reporting period. The IRG and DPIRD continue to assess risk through annual review of farm chemicals, review of monitoring data and monitoring regimes (e.g. per the SGDMP review).
10E	Details of management objectives, management actions, performance standards and contingency measures to mitigate impacts on listed aquatic fauna species in the Keep River.	Compliant	Management objectives, performance standards and contingency measures have previously been assessed in the existing AFMP as compliant with the requirements of this condition. Proponent and IRG review of monitoring informs ongoing management.
10F	Regular and ongoing inspection of the Border Creek and Keep River for weeds, plant pathogens and pest animals and methods to prevent the introduction and provide for quick control of weeds, plant pathogens and pest animals in the Border Creek and Keep River as a result of the action.	Compliant	Regular inspections for weeds, plant pathogens and pest animals along Border Creek and the Keep River are undertaken during routine water quality monitoring. A previous <i>Parkinsonia</i> weed infestation at the Keep River E1 pool (the origins of which may pre-date the Weaber Plain development) is no longer evident following treatment by KAI on behalf of DPIRD.
10G	A targeted aquatic fauna monitoring program to be undertaken to measure the success of management measures to inform an adaptive management	Compliant	Post-development Keep River aquatic fauna monitoring is required three years after development. At its June 2015 meeting, the IRG agreed that this post-development monitoring could occur when 90% of Goomig (Weaber Plain) farms are irrigated. At its February 2020 meeting, the IRG agreed that post-

Condition number / reference	Condition	Is the project compliant?	Evidence / comments
	approach.		development Keep River aquatic ecology monitoring should commence in 2020. WRM undertook this work in 2020. Indo-Pacific Environmental completed the monitoring in 2021 and has been engaged for 2022.  The 2021 Keep River aquatic fauna monitoring report is presented as supporting document 2010.5491.2022.008.
10H	Protocols and timelines for review and reporting to the Department. The approved Aquatic Fauna Management Plan must be implemented.	Compliant	The AFMP includes reporting protocols and timelines. Reporting to the Department occurred through the submission of the 2021 Annual Environment Report. Review of reporting is undertaken with the assistance of the IRG.
11	In order to protect listed threatened species in the Keep River, the person taking the action must prepare a <i>Stormwater and Groundwater Discharge Management Plan</i> (SGDMP) in consultation with the Independent Review Group. The SGDMP must be submitted for approval by the Minister. Clearance of farm lots must not be undertaken until the SGDMP is approved. The SGDMP must include:	Compliant	The original <i>Stormwater and Groundwater Discharge Management Plan</i> (SGDMP) was approved in a previous reporting period. Baseline monitoring of the Keep River was completed in a previous reporting period. As noted under Condition 9, revision of the SGDMP is being undertaken. The IRG supported the full SGDMP review at its April 2019 meeting. The revised draft SGDMP was presented to the February 2020 and May 2020 IRG meetings. The revised SGDMP addresses this condition and meets the WA EPA requirements for environmental management plans. The revision has not yet been finalised or submitted.
11A	Details of a Tailwater Management System to be established on each farm to manage runoff and minimise the discharge of pollutants into the Border Creek and Keep River. The Tailwater Management System must be actively managed to minimise the discharge of stormwater into the Border Creek and Keep River. The Tailwater Management Systems must be constructed and operational prior to commencement of irrigation.	Compliant	Tailwater management systems have been installed on Goomig farms. No tailwater flows from Goomig were reported during dry season irrigation. Wet season irrigation and tailwater management is being considered and addressed through the IRG, given the transition to wet season cropping which is occurring on the Goomig farmlands.
11B	Management actions to prevent runoff transporting pollutants downstream should the agreed tailwater retention capacity be reached. This must include diversion of on-farm stormwater to irrigation channels in periods of low flow, where there is capacity, as identified by Conditions 11 .G and 11 .H, to ensure pollutants are not transported into the Border Creek and Keep River in low flow periods.	Potentially non-compliant	The identification of Metolachlor (exceeding the trigger level) in the Keep River K3 pool (16/3/2022 – per supporting document 2010.5491.2022.009) and in DW1GS samples taken on 14/1/2022, 15/1/2022, 28/2/2022 and 16/3/2022 needs to be considered in light of this management plan requirement.
11C	A baseline monitoring program for water quality and	Completed	Baseline monitoring was completed in a previous reporting period.

Condition number / reference	Condition	Is the project compliant?	Evidence / comments
	hydrology in the Border Creek and Keep River. This must be completed prior to commencement of irrigation and prior to any release of stormwater or groundwater from farms. Sampling sites must include the Keep River estuary and the four Keep River pools (K4, K3, K2 and K1). Methodologies and sampling locations must be established in consultation with the Independent Review Group.		
11D	Installation of water quality and flow gauging stations capable of sampling first flush discharges at the stormwater outlet from the Development Area and installation of flow gauging stations at Border Creek and Keep River, in consultation with the Independent Review Group. Sampling must include analytes identified in Condition 11.I and must have the required accuracy to measure low flow rates. Gauging stations must be established prior to the commencement of irrigation. For any release of first flush water, monitoring must be conducted more than once a day and for any other stormwater flows monitoring must be conducted at least once per day. Automated sampling techniques may be utilised.	Potentially non-compliant	<p>The DW1 Gauging Station (DW1GS) was not functioning as designed during the reporting period. An independent review of the station's functionality was completed in June 2020. At the end of the reporting period, the DW1GS had improved functionality but telemetry and access remain problematic. The Proponent and KAI continue to work towards rectifying the DW1GS issues.</p> <p>The IRG has noted that achieving functionality in this critical monitoring infrastructure is essential, and has expressed frustration at the delays in achieving a working system.</p> <p>The 2020 AER comment remains: <b>A properly functioning DW1 Gauging Station is essential for the monitoring of normal season and risk events and to support the OSWM calculations required under Condition 11L. Accurate risk assessment and management responses are restricted without a functioning DW1GS.</b></p> <p><b>SUPPORTING DOCUMENTATION</b> 2010.5491.2022.013</p>
11E	Seasonal baseline water quality trigger values for the Keep River must be determined in accordance with ANZECC guidelines and agreed by the Independent Review Group. Until these trigger values are agreed by the Independent Review Group, ANZECC guidelines trigger values for systems with high conservation/ecological value (as defined in the ANZECC guidelines) must be used. Sample analytes must be agreed to by the Independent Review Group and in accordance with Condition 11.I.	Compliant	<p>Seasonal baseline water quality triggers were established following the baseline studies, and have been included in the revised SGDMP.</p> <p>Supporting document 2010.5491.2022.005 includes trigger values confirmed by the IRG at its April 2021 meeting, with the early 2022 (wet season) water quality data compared to the triggers in item 2010.5491.2022.009.</p>
11F	Use of best practice multivariate analyses on species level macro-invertebrate and fish assemblage data, with an adequate experimental design (as defined in the Aquatic Fauna Management Plan required under	Compliant	This analysis and assessment was included in the aquatic fauna studies presented in item 2010.5491.2022.008 Keep River 2021 Aquatic Fauna and Targeted Sawfish Survey Report.

Condition number / reference	Condition	Is the project compliant?	Evidence / comments
	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, K2 &K3) relative to baseline and upstream reference sites.		
11G	Updating of the discharge dilution and release timing model (based on Keep River and Border Creek flow monitoring data and water quality characteristics of stormwater from the Development Area). This must be conducted prior to commencement of irrigation and annually during operation.	Compliant	Updating of the dilution and release timing model has been included in the development of the revised SGDMP.
11H	An adaptive groundwater and stormwater discharge program to provide for adaptive management of the discharge of stormwater and surplus groundwater that includes:	Compliant	The revision of the SGDMP reflects the adaptive approach to managing stormwater runoff from the Goomig farmlands, within the broader catchment context of the Keep River – including in relation to dilution.
11H i	discharge rules and rates and contingency actions; and	Compliant	Rules, rates and contingency actions in relation to stormwater runoff and tailwater management are included in the revised SGDMP. There is currently no requirement to discharge groundwater.
11H ii	monitoring locations and requirements including infrastructure and setup;	Compliant	Monitoring locations have been determined and adopted following the baseline Keep River water quality assessment. These include the DW1GS, K4, K3, K2, K1, E1, E2 and E3 pools.
11H iii	design and location of dewatering infrastructure;	Not applicable	Dewatering is not yet required.
11H iv	design and location of discharge infrastructure;	Compliant	The DW1GS has been constructed per design in a previous reporting period. Groundwater discharge infrastructure is not yet required.
11H v	written evidence of any Northern Territory Government permits that are required for discharge of groundwater; and management measures that ensure discharge of water will not impact on water quality in Border Creek and Keep River, including erosion protection measures.	Not applicable	Groundwater discharge permits are not yet required.
11I	Establishment of a list of key analytes to be sampled as part of ongoing water quality monitoring in consultation with the Independent Review Group. The list must be updated annually based on monitoring results.	Compliant	Key analytes were reviewed in the April 2021 IRG meeting. This list will continue to be updated annually. <b>SUPPORTING DOCUMENTATION:</b> 2010.5491.2022.005 IRG Record 6 April 2021
11J	Discharge of groundwater to the Keep River to occur only if all other strategies have been undertaken and there is sufficient flow as determined by Condition 11	Not applicable	Groundwater discharge is not yet required.

Condition number / reference	Condition	Is the project compliant?	Evidence / comments
	.H. Discharge must be in the K1 pool or downstream in the Keep River estuary (as identified in Figure 5 of the Supplementary Environmental Impact Statement), with discharge timings and rules developed with consideration of ebb tides and in consultation with the Independent Review Group.		
11K	Contingency actions to dispose of excess groundwater should monitoring results from Condition 10.C and 10.G indicate there are likely to be adverse impacts on listed threatened species as a result of the action.	Not applicable	Groundwater discharge is not yet required.
11L	An Operational Surface Water Model (OSWM) (that incorporates the outcomes of Conditions 11.A, 11.G and 11.H, and the requirements of 11.J and 11.K) to minimise discharges of stormwater and groundwater into the Border Creek and Keep River and ensure that all flow rules are complied with. A framework of the OSWM must be provided prior to commencement of irrigation and a full model, which includes updated monitoring results, provided within 12 months of the commencement of irrigation. The OSWM must be updated on a seasonal basis.	Potentially non-compliant	<p>A simplified Operational Surface Water Model has been incorporated into the revised (but not finalised) SGDMP, along with early warning criteria.</p> <p>As noted under item 11D, <b>a properly functioning DW1 Gauging Station is essential for the monitoring of normal season and risk events and to support the OSWM calculations required under Condition 11L. Accurate risk assessment and management responses are restricted without a functioning DW1GS.</b></p> <p>The OSWM cannot be effectively used in risk assessment and management until DW1GS data can inform decision-making in a timely manner.</p>
11M	Contingency measures should water quality and flow trigger values be exceeded or there are impacts on the health of threatened species as identified in aquatic fauna monitoring results in Condition 10.G. This must include the ceasing of discharge of stormwater and groundwater to Border Creek and Keep River, implementation of a high intensity (at least daily) water quality sampling program, release of fresh irrigation water to flush the system and changes to farm practices such as reducing or ceasing the use of fertilisers and chemicals.	Potentially non-compliant	Contingency measures are included in the approved and draft revised SGDMP. Supporting document 2010.5491.2022.009 (Goomig 2022 wet season run off and Keep River test results) indicates trigger exceedances for EC and Total N in the K2 pool, and for Metolachlor in the K3 pool. It is unclear how this information was used to inform management responses.
11N	Protocols and timelines for reporting to the Department. The approved Stormwater and Groundwater Discharge Management Plan must be implemented. Note: To avoid doubt, if a condition of another	Compliant	Reporting protocols are included in the approved SGDMP.

Condition number / reference	Condition	Is the project compliant?	Evidence / comments
	approval held by the proponent requires a Stormwater and Groundwater Discharge Management Plan (or a similar plan), the proponent may simultaneously meet the relevant requirements of both conditions by submitting a single plan.		
12	In order to protect listed threatened species in the Keep River, the person taking the action must prepare a Groundwater Management Plan (GMP) in consultation with the Independent Review Group. The GMP must be submitted for approval by the Minister. Clearance of farm lots must not be undertaken until the GMP is approved. The GMP must include:	Compliant	The original, pre-development Groundwater Management Plan (GMP) was approved in 2012.  The GMP is to be updated, per the IRG meeting held in February 2020.  The finalisation of the GMP did not occur during the reporting period.
12A	Expansion of the existing groundwater monitoring bore network for the collection of baseline and ongoing groundwater data. The expanded bore network must be installed prior to commencing clearance of farm lots and at least 18 months before the commencement of irrigation and must include:	Completed	The GMP includes the expanded bore network as stipulated in the condition.
12A i	At least 20 high intensity regional bores.	Completed	Completed in a previous reporting period.
12A ii	At least 30 low intensity regional bores.	Completed	Completed in a previous reporting period.
12A	The management plan must indicate the locations for the expanded bore network.	Completed	Completed in a previous reporting period. The approved GMP includes bore locations.
12B	Monitoring of the bores established under Condition 12.A to collect baseline and ongoing groundwater data. Baseline monitoring must commence at least 18 months prior to commencement of irrigation. Sampling parameters must be determined in consultation with the Independent Review Group and must include:	Compliant	As previously reported, DPIRD has reviewed groundwater monitoring results as recommended by the IRG in October 2018. DPIRD undertook a review of groundwater monitoring to date, which was presented to the IRG in February 2020. Specific changes to the groundwater monitoring regime were accepted by the IRG 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. 2021: High intensity bore field parameters were recorded in November 2021. 2) Selective laboratory analysis undertaken annually for high intensity bores and triennially for low intensity bores in late September. 2021: Laboratory analysis records for high intensity bores have been provided, dated November 2021. 3) Comprehensive laboratory analysis undertaken triennially for high intensity bores in late September.  Triennial monitoring (including metals) was not required in 2021.

Condition number / reference	Condition	Is the project compliant?	Evidence / comments
			<p>DPIRD will incorporate the changes into the revised EMP and a revised Groundwater Management Plan to be submitted for approval under EPBC 2010/5491.</p> <p>While the revised management plan has not been finalised and submitted for Department approval, the revised groundwater testing regime has been approved by the IRG, hence the proponent believes compliance with the IRG requirements satisfies this condition.</p> <p><b>SUPPORTING DOCUMENTATION:</b> 2010.5491.2022.010 2010.5491.2022.014</p>
12B i	High intensity bores - Daily groundwater levels and temperature monitoring; Seasonal monitoring of Electrical Conductivity (EC), pH, Total Dissolved Solids (TDS), major cations and anions, nutrients and pesticides.	Compliant	<p>Data loggers remained in situ in the high intensity bores located on the Goomig farm area and buffer in 2021. Data downloads were undertaken in November 2021. Logger data analysis was not available at the time of preparation of this report. Incorporation of sampling data and automated logging data into the Goomig groundwater database for inclusion in regular impact reviews is necessary if this data is to be used to inform management.</p> <p><b>SUPPORTING DOCUMENTATION:</b> 2010.5491.2022.010 2010.5491.2022.013</p>
12B ii	High intensity bores - Seasonal monitoring of EC, pH, groundwater levels, TDS, nutrients and pesticides.	Compliant	<p>Refer to action 12B.</p> <p><b>SUPPORTING DOCUMENTATION:</b> 2010.5491.2022.010 2010.5491.2022.013</p>
12C	The establishment of at least one on-farm bore per farm. The on-farm bore network must be installed prior to commencement of irrigation.	Completed	<p>The review of groundwater monitoring to date recommends removal of this requirement. The IRG has supported this recommendation. The requirement for individual farm bores was established prior to the development of Goomig, when it was envisaged that each farm lot would be owned by a separate entity. Individual farm bores were considered a contingency measure for determining the source of any chemicals or other significant anomalies in the high intensity and low intensity bore network. As there are only two land managers on Goomig, the farm monitoring bore requirement was considered unnecessary in the review supported by the IRG. The revised monitoring regime has been adopted despite the GMP revision not being finalised.</p> <p>Bores adjacent to farms are considered 'farm bores' where in practice. The review of groundwater monitoring to date recommends removal of this requirement. The IRG has supported this recommendation.</p>
12D	Monitoring of the on-farm bores established under	Compliant	The review of groundwater monitoring to date recommends removal of this requirement. The IRG has

Condition number / reference	Condition	Is the project compliant?	Evidence / comments
	Condition 12.C to collect baseline and ongoing groundwater data. Parameters for monitoring must be determined in consultation with the Independent Review Group and must include seasonal monitoring of groundwater levels, EC and pH		supported this recommendation. The requirement for individual farm bores was established prior to the development of Goomig, when it was envisaged that each farm lot would be owned by a separate entity. Individual farm bores were considered a contingency measure for determining the source of any chemicals or other significant anomalies in the high intensity and low intensity bore network. As there are only two land managers on Goomig, the farm monitoring bore requirement was considered unnecessary in the review supported by the IRG. The revised monitoring regime has been adopted despite the GMP revision not being finalised. Consequently, farm bores were not monitored in 2021 On this basis, the Proponent believes it is compliant with the groundwater monitoring requirements.
12E	Updates of the groundwater model and operation of the groundwater management system with monitoring data derived from Conditions 12.B and 12.D to assist in determining an optimal dewatering strategy. Numerical groundwater modelling must be updated prior to commencement of irrigation and in consultation with the Independent Review Group. Subsequent updates must be conducted every 2-4 years depending on monitoring in Condition 12.D (if worst case scenario indicates a breach in trigger levels, modelling must be updated every 2 years, otherwise every 4 years);	Compliant	DPIRD's 2019 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 recommendations at its February 2020 meeting.
12F	Monitoring of the bores established under Condition 12.C for physical, chemical and nutrient parameters, if high or low intensity bores exceed groundwater quality or groundwater level triggers. Sampling must include groundwater levels, EC, TDS, major cations and anions, nutrients, pesticides and pH and must be undertaken on a seasonal basis for five years following the exceedance of trigger levels.	Compliant	<b>SUPPORTING DOCUMENTATION:</b> 2010.5491.2022.010 2010.5491.2022.014
12G	Establishment of baseline groundwater quality monitoring in accordance with ANZECC guidelines (2000). Site specific trigger levels may be determined in consultation with the IRG, within the context of Condition 11.	Completed	Baseline groundwater quality has been established.
12H	Establishment of groundwater management infrastructure, including a network of groundwater abstraction bores in the Development Area and Buffer	Not applicable	Dewatering is not yet required.

Condition number / reference	Condition	Is the project compliant?	Evidence / comments
	Area and discharge infrastructure at the K1 pool or downstream in the Keep River estuary designed in consultation with the Independent Review Group. Forecasting of trigger level exceedance must be projected 10 years into the future. Abstraction wells and groundwater discharge infrastructure must be installed and operational prior to any expected breach of trigger levels based on forecasting (incorporating the accuracy of the model into installation timings).		
12I	Establishment of a series of high intensity reference bores, at locations agreed to by the Independent Review Group, to define a groundwater reference condition. The reference bores must be installed at least 18 months prior to commencement of irrigation.	Completed	Reference bores were established in a previous reporting period.
12J	Monitoring of the bores established under Condition 12.I to collect reference baseline and ongoing groundwater data. Sampling must include daily groundwater levels and temperature and seasonal EC and pH levels;	Compliant	Bore monitoring has occurred, per the supporting documentation, and the previous commentary about the revised monitoring regime. Logger data analysis completion, and the incorporation of field and laboratory records into the groundwater database, is required.  <b>SUPPORTING DOCUMENTATION:</b> 2010.5491.2022.010 2010.5491.2022.014
12K	Details of contingency measures should groundwater levels, soil salinity, chemicals or nutrients exceed trigger levels. This must include details of increased monitoring, implementation of a groundwater control program and changes to farm practices such as reducing or ceasing the use of fertilisers and chemicals.	Compliant	The approved GMP contains details of contingency measures (which the DPIRD review of groundwater monitoring indicated are not yet required).
12L	Details of contingency measures to be implemented should trend analysis of groundwater levels exceed the trend at reference bores by a rate determined in consultation with the Independent Review Group. This must include details of increased monitoring and implementation of a groundwater control program.	Compliant	Contingency measures have been included in the approved GMP.
12M	Protocols and timelines for review and reporting to the Department	Compliant	Protocols and timelines for review and reporting have been included in the approved GMP.
12	The approved Groundwater Management Plan must	Compliant	Despite monitoring gaps and inconsistencies highlighted in the review, monitoring data indicates the

Condition number / reference	Condition	Is the project compliant?	Evidence / comments
	<p>be implemented.</p> <p>Note: To avoid doubt, if a condition of another approval held by the proponent requires a Groundwater Management Plan, the proponent may simultaneously meet the relevant requirements of both conditions by submitting a single plan.</p>		<p>impact of the development on groundwater is within the originally expected range, and the intent of the GMP has reasonably been met.</p>
13	<p>In order to protect listed threatened species, the person taking the action must prepare a Decommissioning Plan (DP), in consultation with the WA DEC. A preliminary DP must be submitted for approval by the Minister not more than 5 years after commencement of the action and a final DP submitted at least 6 months prior to the anticipated date of decommissioning. The DP must include:</p> <ul style="list-style-type: none"> <li>A. The progressive removal or reuse of infrastructure where operations cease;</li> <li>B. Establishment of management practices and safeguards to minimise environmental disturbance;</li> <li>C. Measures to ensure Matters of National Environmental Significance are not impacted by progressive decommissioning, or final decommissioning of infrastructure;</li> <li>D. Rehabilitation actions for the infrastructure sites following decommissioning including for: <ul style="list-style-type: none"> <li>i. optimising habitat and habitat connectivity for Matters of National Environmental Significance;</li> <li>ii. enhancing pre-construction environmental quality; and</li> <li>iii. ongoing management during rehabilitation.</li> </ul> </li> </ul> <p>The approved Decommissioning Plan must be implemented.</p> <p>Note: To avoid doubt, if a condition of another approval held by the proponent requires a Decommissioning Plan, the proponent may</p>	Compliant	<p>The preliminary Decommissioning Plan was provided to the Department by the former proponent during a previous reporting period.</p> <p>Implementation of the Decommissioning Plan is not yet required, nor is it envisaged given the long-term nature of farming.</p>

Condition number / reference	Condition	Is the project compliant?	Evidence / comments
	simultaneously meet the relevant requirements of both conditions by submitting a single plan.		
14	<p>In order to offset the potential impacts on listed threatened species, including the endangered Gouldian Finch (<i>Erythrura gouldiae</i>), the endangered Northern Quoll (<i>Dasyurus hallucatus</i>), the vulnerable Red Goshawk (<i>Erythrotriorchis radiates</i>), the vulnerable Crested Shrike-tit (<i>Falcunculus frontatus whitei</i>), the critically endangered Speartooth Shark (<i>Glyphis glyphis</i>), the endangered Northern River Shark (<i>Glyphis garricki</i>), the vulnerable Freshwater Sawfish (<i>Pristis microdon</i>) and the vulnerable Dwarf Sawfish (<i>Pristis clavata</i>), the person taking the action must prepare an Offset Management Plan (OMP) in consultation with the WA DEC. The OMP must be submitted for approval by the Minister. The OMP must be submitted to the Department for approval by the Minister no later than 12 months after the date of this approval decision. The OMP must include, but should not be limited to:</p> <ul style="list-style-type: none"> <li>A. Details of the direct offsets proposed in the draft Environmental Impact Statement and how these will deliver long-term conservation benefits for relevant terrestrial listed threatened species that would not otherwise be achieved. This must include: <ul style="list-style-type: none"> <li>i. Mapping of the native vegetation habitat suitable for listed threatened species;</li> <li>ii. Details of the area and characteristics of suitable habitat for listed threatened species;</li> <li>iii. Details of whether the offset site provides the same landscape function and habitat type for the listed species as the habitat cleared or impacted by the proposal;</li> <li>iv. Details of whether the offset site delivers a real conservation outcome that would not have otherwise been achieved (i.e. whether it was to</li> </ul> </li> </ul>	Compliant	<p>The Offset Management Plan was approved in 2012. The required vegetation mapping was undertaken in a previous reporting period. The requirements of this Condition have been largely completed.</p> <p>DPIRD continues to provide \$150,000 per year to the CSIRO for the <i>Glyphis</i> and <i>Pristis</i> research program established under this condition.</p> <p><b>SUPPORTING DOCUMENTATION</b> 2010.5491.2022.015 DPIRD payment confirmation - CSIRO</p>

Condition number / reference	Condition	Is the project compliant?	Evidence / comments
	<p>be protected regardless of the action);</p> <p>v. Steps that will be taken to ensure that any direct offset site will be protected in perpetuity for conservation purposes and details of evidence that will be provided to the Department that conservation covenants have been entered into;</p> <p>vi. Provision of ongoing management of the offset site, including details of funding mechanisms.</p> <p>B. Details of alternative direct or indirect offsets if the proposed offsets do not satisfy the requirements listed in Condition 14.A;</p> <p>C. Funding of research activities, agreed by the Department, to an amount of no less than \$150,000 per year for 10 years, for the management, monitoring and/or improved protection of the critically endangered Speartooth Shark (<i>Glyphis glyphis</i>), the endangered Northern River Shark (<i>Glyphis garricki</i>), the vulnerable Freshwater Sawfish (<i>Pristis microdon</i>) and the vulnerable Dwarf Sawfish (<i>Pristis clavata</i>). The proposed research activities must be developed in consultation with the Sawfish and Glyphis Recovery Team. Payments must be made to a trust fund agreed to by the Department. Research activities must be approved and the first yearly payment must be provided within 18 months of the date of this approval decision.</p> <p>The approved Offset Management Plan must be implemented.</p>		
15	If the person taking the action wishes to carry out any activity otherwise than in accordance with any of the management plans as specified in the conditions, the person taking the action must submit to the Department for the Minister's written approval a revised version of that management plan. The varied	Potentially non-compliant	The Proponent is generally undertaking monitoring under conditions 10, 11 and 12 in accordance with recommended changes to monitoring regimes which have been supported by the IRG. Where monitoring is being delivered according to the IRG-supported approach (which are informed by actual on-the-ground arrangements and not pre-development assumptions, as were the 2012-approved management plans) the performance in 2021-2022 has been assessed as compliant.

Condition number / reference	Condition	Is the project compliant?	Evidence / comments
	activity shall not commence until the Minister has approved the varied management plan in writing. The Minister will not approve a varied management plan unless the revised management plan would result in an equivalent or improved environmental outcome over time. If the Minister approves the revised management plan, that management plan, must be implemented in place of the management plan originally approved.		However, revised management plans have <b>not</b> been finalised and submitted to the Department. On this basis, the proponent is potentially non-compliant with Condition 15. If the Department does not consider the revised monitoring regimes which have been supported by the IRG to be acceptable, the proponent is also potentially non-compliant with various elements of Condition 11 and Condition 12. It is essential that the management plans be finalised and submitted for approval as soon as possible, to clear up any discrepancies between the originally approved plans and the current arrangements.
16	If the Minister believes that it is necessary or convenient for the better protection of the listed threatened and migratory species to do so, the Minister may request that the person taking the action make specified revisions to the management plans specified in the conditions and submit the revised management plan for the Minister's written approval. The person taking the action must comply with any such request. The revised approved management plan must be implemented. Unless the Minister has approved the revised management plan, then the person taking the action must continue to implement the management plan originally approved, as specified in the conditions.	Not applicable	No requests to amend management plans were received during the reporting period.
17	Unless otherwise agreed to in writing by the Minister, the person taking the action must publish all management plans referred to in these conditions of approval and any baseline information and monitoring results required by these plans on their website. Each management plan must be published on the website within 1 month of being approved and all baseline information and monitoring results must be published on the website annually, beginning twelve months after the commencement of the action.	Compliant	The management plans referred to in the conditions are available at <a href="http://www.drd.wa.gov.au/projects/Agriculture/Pages/Ord-East-Kimberley-Expansion.aspx">http://www.drd.wa.gov.au/projects/Agriculture/Pages/Ord-East-Kimberley-Expansion.aspx</a>
18	Prior to the sale of any land the person taking the action must provide evidence to the Department that any relevant conditions (including, but not limited to the requirements of Conditions 6, 7, 8, 10, 11, 12 and	Completed	The wording for condition registration on titles was agreed by the Department in November 2012. There have been no land sales to date. KAI leases the majority of the farm lots from the WA Government, and MG Corporation (Traditional owners) are to receive lots 15 and 16 in freehold under the terms of the <i>Ord Final Agreement</i> (the relevant Native Title settlement).

Condition number / reference	Condition	Is the project compliant?	Evidence / comments
	13) have been registered on the title.		
19	Upon the direction of the Minister, the person taking the action must ensure that an independent audit of compliance with the conditions of approval is conducted and a report submitted to the Minister. The independent auditor must be approved by the Minister prior to the commencement of the audit. Audit criteria must be agreed to by the Minister and the audit report must address the criteria to the satisfaction of the Minister.	Not applicable	An independent audit was not directed by the Minister during the reporting period.
20	If, at any time after five years from the date of this approval, the person taking the action has not substantially commenced the action, then the person taking the action must not substantially commence the action without the written agreement of the Minister.	Completed	The project has substantially commenced.

## 5.0 References

Bennett, D & George, R 2014, 'Goomig Farmlands development: baseline water quality in the lower Keep River', Resource management technical report 393, Department of Agriculture and Food, Western Australia, Perth.

Department of the Environment, 2014, *Annual Compliance Report Guidelines*. Commonwealth of Australia, Canberra.

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KBR (Kellogg Brown Root), 2011, *East Kimberley Expansion Project: Weaber Plains groundwater modelling report – final (including Stage 4 results)*. Prepared for LandCorp, Perth.

Kimberley Boab Consulting, 2018, *EPBC 2010/5491 Annual Environmental Report 1 May 2017 to 30 April 2018*, Perth. Prepared for the Department of Primary Industries and Regional Development.

Kimberley Boab Consulting, 2019, *Ord River Irrigation Area Stage 2 M2 Supply Channel Compliance Assessment Report 2018*, prepared for the Department of Primary Industries and Regional Development, Kununurra.

Kimberley Boab Consulting, 2019, *EPBC 2010/5491 Annual Environmental Report 1 May 2018 to 30 April 2019*, Perth. Prepared for the Department of Primary Industries and Regional Development.

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Kimberley Boab Consulting, 2021, *EPBC 2010/5491 Annual Environmental Report 1 May 2019 to 30 April 2020*, Perth. Prepared for the Department of Primary Industries and Regional Development.

Kimberley Boab Consulting, 2022a, *Ord River Irrigation Area Stage 2 M2 Supply Channel Compliance Assessment Report 2020*, prepared for the Department of Primary Industries and Regional Development, Kununurra.

Kimberley Boab Consulting, 2022b, *EPBC 2010/5491 Annual Environmental Report 1 May 2020 to 30 April 2021*, Perth. Prepared for the Department of Primary Industries and Regional Development.

Kimberley Boab Consulting, 2022c, *Ord River Irrigation Area Stage 2 M2 Supply Channel Compliance Assessment Report 2021*, prepared for the Department of Primary Industries and Regional Development, Kununurra.

Lillicrap, AM, George, RJ, Ryder, A & Bennett, D 2015, 'Groundwater chemistry of the Weaber Plain (Goomig Farmlands): baseline results 2010–13', Resource management technical report 392, Department of Agriculture and Food, Western Australia, Perth.

Save the Gouldian Fund, 2017, *Ord-East Kimberley Expansion Project – Weaber Plain Development Area Gouldian Finch Non Breeding Counts (2017)*. Prepared for Department of Regional Development.

## Appendix A – Supporting Documentation

### PART A: Documents referenced in Table 4

-  2010.5491.2022.001 Statement 938 and EMP Compliance Assessment Report 2021.pdf
-  2010.5491.2022.002 Goomig Surface Water Report 2021 Season.pdf
-  2010.5491.2022.003a Goomig Gouldian Finch Monitoring Nesting Activity 2021-2022.pdf
-  2010.5491.2022.003b Goomig Gouldian Finch Foraging and Grass 2022 FINAL received 4 August 2022.pdf
-  2010.5491.2022.004 Fire Snapshot - Weaber Plain Goomig 2012 - 2021.pdf
-  2010.5491.2022.005 IRG Record of Meeting inc trigger values - 6 April 2021.pdf
-  2010.5491.2022.006 IRG update on DW1GS 2021-07-08.pdf
-  2010.5491.2022.007 IRG update re DW1GS 2021-08-09.pdf
-  2010.5491.2022.008 Keep River Post-Development Targeted Survey 2021.pdf
-  2010.5491.2022.009 Goomig 2022 wet season run off Keep River test results.xlsx
-  2010.5491.2022.010 Keep River and Groundwater monitoring field data November 2021.xlsx
-  2010.5491.2022.011 Keep River and Groundwater monitoring November 2021 Lab Results.pdf
-  2010.5491.2022.012 Keep River water quality results Feb-Mar2022.pdf
-  2010.5491.2022.013 KAI advice re DW1GS 2022-06-13.pdf
-  2010.5491.2022.014 Goomig November 2021 Groundwater Lab Results.pdf
-  2020.5491.2022.015 DPIRD Payment Confirmation - CSIRO.pdf

## PART B: Evidence to support *Statement 938 Compliance Assessment Report 2021*

2021.EMP2a KAI Induction Environment Slide.docx
2021.EMP2b KAI Induction Questions - 2021.doc
2021.EMP2c Main Roads Moonamang Road Environmental and Heritage Induction - 20210325
2021.EMP2d MG-Cubbie compliance inc induction.pdf
2021.EMP3 Moonamang Road Direct Managed Works Construction EMP - Final - 20210324.pdf
2021.EMP5 Main Roads Topsoil retention and waste storage at site office.jpg
2021.EMP7a Pre-Clearing Inspection of Catch Drain Terminus new clearing - Main Roads.DOCX
2021.EMP7b Pre-Clearing Inspection of Site Office - Main Roads.docx
2021.EMP7c Drain intersection pre-clearing inspection - Main Roads.DOCX
2021.EMP9 Topsoil retention - Area 11.jpg
2021.EMP14 Moonamang Road and Borrow Pit Environmental Management Guide REV A July 2019.pdf
2021.EMP19a MG-Cubbie compliance inc soil tests.pdf
2021.EMP19b KAI CSBP 2021 Goomig soils report.pdf
2021.EMP19c KAI CSBP Soil Sample Arrival Notification Report.pdf
2021.EMP24a KAI Hydrocarbon Storage on farm.jpg
2021.EMP24b KAI Hydrocarbon Storage on farm.jpg
2021.EMP24c Main Roads Self-bunded diesel trailer.jpg
2021.EMP25a Main Roads Self-bunded generator portable.jpg
2021.EMP25b Main Roads Self-bunded generator - site office.jpg
2021.EMP26 Main Roads in-vehicle oil and fuel response kit.jpg
2021.EMP30a MG-Cubbie compliance record inc chemical usage.pdf
2021.EMP30b KAI Chemical list 2021.xlsx
2021.EMP32a A Farnhill NT Aerial Spraying Chemical Licence.pdf
2021.EMP32b Alistair Farnhill Pilot Chemical Rating.pdf
2021.EMP45 KAI Fire Permit 2021-10-18.pdf
2021.EMP54 Knox Typhonium Habitat mapping report 210721_RevA CONFIDENTIAL - NOT FOR RELEASE.pdf
2021.EMP65 Main Roads EO Vehicle inspections weed and seed.PDF
2021.EMP69 Main Roads Pre-Clearing Inspection of Area 11 Gravel Pit.docx
2021.EMP70 Moonamang Road Extension Borrow Pit - Rehabilitation Plan.docx
2021.EMP83a Groundwater monitoring field data November 2021.xlsx
2021.EMP83b November 2021 Groundwater Lab Results.pdf
2021.EMP93 Goomig 2022 wet season run off Keep River test results.xlsx
2021.EMP100a IRG Record of Meeting inc trigger values - 6 April 2021.pdf
2021.EMP100b IRG April 2021 - Farm (and other) chemicals laboratory analysis capability....pdf
2021.EMP101a 2021-07-08 IRG update on DW1GS.pdf
2021.EMP101b 2021-08-09 IRG update re DW1GS.pdf
2021.EMP101c 2022-06-13 KAI advice re DW1GS.pdf
2021.EMP101d 2021-02-10 DW1GS lab results.pdf
2021.EMP110 DPIRD Keep River Post-Development Targeted Survey 2021.pdf
2021.EMP112a Main Roads - boundary tape to demarcate clearing.jpg
2021.EMP112b Main Roads - Pre-Clearing Inspection of Main Alignment.docx
2021.EMP112c Main Roads - Pre-Clearing notification Section 40 Authorisation TFL 166.docx
2021.EMP116 Topsoil retention for old road re-spread - Main Roads.JPG
2021.EMP125a Turnaround track rehabilitation Feb 2022 - Main Roads.JPG
2021.EMP125b Drain Rehabilitation - post construction Feb 2022 Main Roads.JPG
2021.EMP125c Site office rehabilitation Feb 2022 - Main Roads.JPG
2021.EMP132a Goomig Knox Firescar by Month 2021
2021.EMP132b Goomig-Knox Last Burnt 2012-2021
2021.EMP135a Rehabilitation near DW1GS Track 2021-10-21.jpg
2021.EMP135b Area 11 Leighton Rehabilitation 2021-10-21.jpg
2021.EMP147 Area 11 Early rehabilitation contouring - Main Roads 2021-11-16.jpg
2021.EMP173a MRWA to MG Corp - Notification and request for comment on Moonamang Road Upgrade - Information on Project layout.EML
2021.EMP173b MRWA to MG Corp - Notification and request for comment on Area 11 Gravel Pit Expansion - Weaber Plains.EML
2021.EMP173c Native Title Act Notifications - KUNSD 2019-04-24 Notification Letter to MG Corporation re Moonamang Road Construction - Section 24ka.pdf

## *Appendix B – Ord River Irrigation Area Stage 2 M2 Supply Channel Compliance Assessment Report 2021*

***Please refer to attached PDF document.***