



**Knox Creek Plain  
EPBC Approval  
2014/7143**

**Annual Report  
2015**

March 2016

Prepared for Kimberley Agricultural Investment Pty Ltd by



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### **DOCUMENT CONTROL**

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## Acronyms and Abbreviations

EMP	Environmental Management Program
EPA	Environmental Protection Authority
EPBC	Environment Protection and Biodiversity Conservation (Act 1999)
IRG	Independent Review Group
KAI	Kimberley Agricultural Investment Pty Ltd
WA	Western Australia

## 1.0 Overview

On June 16, 2015, the Australian Government Department of the Environment, under delegation of the Minister for the Environment, issued Kimberley Agricultural Investment Pty Ltd (KAI) conditional approval to develop the Knox Creek Plain for irrigated agriculture. Approval 2014/7143 contains fifteen conditions targeted at ensuring the protection of Matters of National Environmental Significance, listed under the Environment Protection and Biodiversity Conservation (EPBC) Act 1999.

This document reports on progress against implementation of the conditions of approval, for the period ending 31 December 2015, and forms the first annual report required under EPBC 2014/7143.

It is supplemented by the 2015 annual Environmental Management Program (EMP) audit of compliance with the requirements of Statement 938, issued by the Western Australian Minister for the Environment, in relation to the development of the M2 agricultural area in the north-east Kimberley, which partially includes the Knox Creek Plain.

## 2.0 Statement of progress against EPBC 2014/7143 conditions

Development of the Knox Creek Plain for irrigated agriculture has not yet commenced. KAI is waiting upon security of land tenure from the Western Australian government, before it will begin land clearing and development. This is anticipated to occur in late 2016. Nonetheless, KAI has commenced investigations and planning, including required baseline research and the development of management plans required under EPBC 2014/7143.

Table 1 provides a summary of progress at 31 December 2015.

Table 1 - EPBC 2014/7143 Progress Statement 2015

Condition	Requirement	Statement of Progress - 2015
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.	Commencement of the action has not yet occurred.
2	The person taking the action must maintain accurate records substantiating all activities associated with or relevant to the conditions of approval, including measures taken to implement the management plans required by this 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 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.	KAI is maintaining all records of environmental investigations and compliance with the requirements of EPBC 2014/7143.
3	By 31 March of each year after commencement of the action, the person taking the action must publish a report on their website addressing compliance with the conditions of this approval over the previous 12 months, including implementation of any management plans as specified in the conditions. Non-compliance with any of the conditions of this approval must be reported to the Department within two days of the person taking the action becoming aware of the non-compliance and at the same time as the compliance report is published. The person taking the action must continue to publish the report until such time as agreed in writing by the Minister or the approval has expired.	This report is provided to update the Minister for the Environment on progress against compliance with EPBC 2014/7143, despite the action having not yet commenced.
4	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 submitted to the Minister. The person taking the action must not commence the audit until the independent auditor	No audit requests received to date.

Condition	Requirement	Statement of Progress - 2015
	and audit criteria have been approved by the Minister. The audit report must address the criteria to the satisfaction of the Minister.	
5	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.	Not required at this stage.
5A	The person taking the action may revise a management plan or Sections of the <i>Knox Creek Plain Environmental Management Program May 2015</i> , referred to in conditions below, to correct a minor error in, or make an administrative change to the document. Where the person taking the action revises a management plan, the person taking the action must provide to the Department, within 14 days of revising the document:	Editorial revisions to the <i>Knox Creek Plain Environmental Management Program (EMP)</i> – dated August 2015 – were submitted to the Department of the Environment on 4 January 2016. The August 2015 version of the EMP has been approved by the WA Environmental Protection Authority and contains no substantive differences to the May 2015 version. The major change relates to the Environmental Proponent under the WA EP Act approval (Statement 938) being the WA Department of State Development on behalf of the Minister for State Development. The August 2015 EMP content has been approved by both the Commonwealth and State environmental regulators. As such, the August 2015 EMP will be utilised henceforth.
5A(i)	A copy of the management plan marked up to show the revisions, in both hard copy and electronic copy; and	Editorial revisions to the <i>Knox Creek Plain Environmental Management Program</i> – dated August 2015 – were submitted to the Department of the Environment on 4 January 2016.
5A(ii)	A clear summary of all the revisions that have been made to the management plan, and the reasons for these revisions.	Editorial revisions to the <i>Knox Creek Plain Environmental Management Program</i> – dated August 2015 – were submitted to the Department of the Environment on 4 January 2016.

Condition	Requirement	Statement of Progress - 2015
6	If the Minister believes that it is necessary or convenient for the better protection of the listed threatened or 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.	No requests from the Minister have been received to date.
7	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.	Not required at this stage.
8	Unless otherwise agreed 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 one 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. The person taking the action must continue to publish the approved management plans and baseline information until such time as agreed in writing by the Minister or the approval has expired.	No management plans have been approved under EPBC 2014/7143 to date.
9	Any amendments to Sections of the <i>Knox Creek Plain Environmental Management Program May 2015</i> referred to in the conditions below must be submitted to the Department and approved by the Minister prior to any amendments being implemented.	No substantive changes to the referenced Knox Creek Plain EMP Sections have been made to date.

Condition	Requirement	Statement of Progress - 2015
10	To avoid and/or minimise impacts on listed threatened and migratory species from impacts resulting from the action, the person taking the action must not clear more than 6,280ha of vegetation, as specified by 'Proposed Development Area' in Annexure 1.	No clearing of the Knox Creek Plain occurred in 2015.
	To protect the critically endangered Bare-rumped Sheathtail Bat ( <i>Saccolaimus saccolaimus nudicluniatatus</i> ) from impacts resulting from the action, the person taking the action must:	Noted
11A	Ensure the clearance of the Development Area does not result in the death of any Bare-rumped Sheathtail Bats	Noted
11B	Conduct Bare-rumped Sheathtail Bat roosting tree surveys of potential Bare-rumped Sheathtail Bat habitat areas in accordance with the advice of a Bare-rumped Sheathtail Bat expert. Bare-rumped Sheathtail Bat roosting tree surveys must identify, tag and map all potential or confirmed Bare-rumped Sheathtail Bat roost trees in the potential Bare-rumped Sheathtail Bat habitat areas and be completed within six months prior to clearance of potential Bare-rumped Sheathtail Bat habitat areas; and	Roost tree surveys were conducted in August 2015 under the advice of Dr Kyle Armstrong (Specialised Zoological). A report will be provided to the Department with the Bare-rumped Sheathtail Bat (BRSB) Management Plan in early 2016.
11C	If the Bare-rumped Sheathtail Bat roosting tree surveys identify potential or confirmed Bare-rumped Sheathtail Bat roost trees in the potential Bare-rumped Sheathtail Bat habitat areas, then submit to the Department a Bare-rumped Sheathtail Bat Management Plan (BRSBMP). The BRSBMP must detail how all potential and confirmed Bare rumped Sheathtail Bat roost trees in the potential Bare-rumped Sheathtail Bat habitat areas will be avoided, mitigated or offset. The BRSBMP must be submitted for approval by the Minister. The person taking the action must not commence clearance of potential Bare-rumped Sheathtail Bat habitat areas until the BRSBMP is approved by the Minister. The BRSBMP must be approved by the Minister prior to implementation	The BRSB Management Plan has been drafted and will be submitted to the Department in early 2016.  Note that KAI is aware that the EPBC listing status of the BRSB is currently under review by the Threatened Species Scientific Committee. If a reclassification of the listing status of the BRSB is made, KAI will submit a request for variation to Condition 11 of EPBC 2014/7143.
	The approved BRSBMP must be implemented and include commitments to:	The BRSB Management Plan has been drafted and will be submitted to the Department in early 2016.

Condition	Requirement	Statement of Progress - 2015
11C(i)	Consider the implementation of more focused survey methods, such as mist netting, to obtain more refined results. This may be particularly beneficial in the event that the number of potential or confirmed Bare-rumped Sheathtail Bat roost trees identified during Bare-rumped Sheathtail Bat roosting tree surveys is high	The BRSB Management Plan has been drafted and will be submitted to the Department in early 2016.
11C(ii)	Conduct all clearance of potential Bare-rumped Sheathtail Bat habitat areas outside of the Bare-rumped Sheathtail Bat breeding season	The BRSB Management Plan has been drafted and will be submitted to the Department in early 2016.
11C(iii)	Conduct a pre-clearance disturbance regime in accordance with the advice of a Bare-rumped Sheathtail Bat expert	The BRSB Management Plan has been drafted and will be submitted to the Department in early 2016.
11C(iv)	Fell any potential or confirmed Bare-rumped Sheathtail Bat roost trees that cannot be avoided, with care, in the presence of a Bare-rumped Sheathtail Bat expert, and in accordance with the advice of a Bare-rumped Sheathtail Bat expert, so as to avoid mortality of Bare-rumped Sheathtail Bat individuals	The BRSB Management Plan has been drafted and will be submitted to the Department in early 2016.
11C(v)	Translocate, with the service of a Bare-rumped Sheathtail Bat expert, any Bare rumped Sheathtail Bat that is captured following the felling of a potential or confirmed Bare-rumped Sheathtail Bat roost tree	The BRSB Management Plan has been drafted and will be submitted to the Department in early 2016.
11C(vi)	Report site locations (both original location site and, if a Bare-rumped Sheathtail Bat is captured, the translocated site) to the Department if any confirmed Bare rumped Sheathtail Bat roost trees are found	The BRSB Management Plan has been drafted and will be submitted to the Department in early 2016.
11C(vii)	Provide offsets of no less than \$100,000 to a trust fund for Bare-rumped Sheathtail Bat research for each confirmed Bare-rumped Sheathtail Bat roost tree cleared for the proposal, to a maximum contribution of \$500,000. The offset trust fund and research activities must be approved by the Minister prior to implementation; or	The BRSB Management Plan has been drafted and will be submitted to the Department in early 2016.

Condition	Requirement	Statement of Progress - 2015
<b>11C(viii)</b>	Not clear selected potential or confirmed Bare-rumped Sheath-tail Bat roost trees or any vegetation within a 30m zone around these trees	The BRSB Management Plan has been drafted and will be submitted to the Department in early 2016.
<b>12</b>	Buffer Management	
<b>12A</b>	The person taking the action must establish a buffer area of at least 6,415ha, as specified by "Proposed Buffer Areas" in Annexure 1.	KAI is liaising with the WA Government regarding access to the Knox Creek Plain. The WA Government will establish the Knox Creek Plain buffer area, under freehold to Traditional Owners, under the requirements of the Ord Final Agreement.
<b>12B</b>	The person taking the action must implement the action in accordance with Sections 10 and 11 of the Knox Creek Plain Environmental Management Program 2015.	An independent audit of compliance with the <i>Knox Creek Plain Environmental Management Program</i> has been undertaken as part of the 2015 Statement 938 compliance assessment for the WA EPA. This audit was undertaken by Strategen Pty Ltd in 2015. The associated compliance assessment report will be submitted to the Department when it is released by the Department of State Development (as proponent for both the Goomig and Knox developments under WA EP Act 1986).
<b>12C</b>	The person taking the action must ensure that none of the following habitat trees or any vegetation within a 30m zone around these trees are cleared within the Buffer Area:	No clearing by KAI has occurred to date. Existing Carlton Hill Station tracks and firebreaks are in situ.
<b>12C(i)</b>	Confirmed or potential Bare-rumped Sheath-tail Bat ( <i>Saccolaimus Saccolaimus nudicluniatus</i> ) roosting trees;	No clearing by KAI has occurred to date.
<b>12C(ii)</b>	Gouldian Finch ( <i>Erythrura gouldiae</i> ) breeding trees;	No clearing by KAI has occurred to date.
<b>12C(iii)</b>	Red Goshawk ( <i>Erythrorchis radiatus</i> ) nesting trees; and	No clearing by KAI has occurred to date.
<b>12C(iv)</b>	Masked Owl (Northern) ( <i>Tyto novaehollandiae kimberli</i> ) nesting trees.	No clearing by KAI has occurred to date.
<b>12C(v)</b>	The location and date of any incidental sightings of the species listed in Condition 12.C above must be reported to the Department within 30 days of occurrence.	No clearing by KAI has occurred to date.
<b>13</b>	Weed and Pest Animal Management	

Condition	Requirement	Statement of Progress - 2015
13A	The person taking the action must implement the action in accordance with Section 6 of the Knox Creek Plain Environmental Management Program May 2015.	An independent audit of compliance with the <i>Knox Creek Plain Environmental Management Program</i> has been undertaken as part of the 2015 Statement 938 compliance assessment for the WA EPA. This audit was undertaken by Strategen Pty Ltd in 2015. The associated compliance assessment report will be submitted to the Department when it is released by the Department of State Development (as proponent for both the Goomig and Knox developments under WA EP Act 1986).
14	Independent Review Group	
14A	The person taking the action must appoint an Independent Review Group (IRG) to review the impacts of the action on aquatic listed threatened and migratory species. The IRG must be established prior to the submission of the Aquatic Fauna Management Plan to the Minister for approval. If a condition of another approval held by the proponent requires an IRG identical in nature, the proponent may meet the relevant requirements of both conditions by appointing a single IRG. The IRG must be established by the person taking the action in accordance with the following requirements:	The Knox Creek Plain Independent Review Group (IRG) was established in November 2015 and met for the first time on 30/11/2015. This meeting included review of the draft <i>Knox Creek Plain Aquatic Fauna Management Plan</i> , which was submitted to the Department for Ministerial approval on 4 January 2016.
14A(i)	The IRG must be funded, resourced and managed by the person taking the action.	KAI funds and provides executive support to the Knox Creek Plain IRG.
14A(ii)	The IRG must consist of independent scientific and technical experts, of whom at least one must be a <i>Glyphis</i> and <i>Pristis</i> expert and two must be technical experts with at least five years experience in northern Australian surface water and groundwater hydrology, approved by the Minister.	Membership of the IRG was approved by the Department on 23 November 2015. Membership is as follows: Mr David Menzel - Independent Chairperson Dr Helen Larson – <i>Glyphis</i> and <i>Pristis</i> expert Mr Ray Evans – hydrology expert Dr Richard George – hydrology expert

Condition	Requirement	Statement of Progress - 2015
14A(iii)	Terms of Reference for the IRG 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, tenure of membership, and chairing and quorum arrangements. The Terms of Reference must be approved by the Minister in writing prior to the submission of the <i>Aquatic Fauna Management Plan</i> to the Minister for approval.	Knox Creek Plain IRG Terms of Reference were approved by the Department on 8 September 2015.
14A(iv)	The IRG must provide advice to the person taking the action on any revisions to the <i>Aquatic Fauna Management Plan</i> . The advice of the IRG must also be provided to the Minister.	Not required at this stage.
14A(v)	The IRG must assess any exceedances of trigger values and advise changes to the person taking the action as required; and	Not required at this stage.
14A(vi)	The Minister may seek advice from the IRG at any time.	Advice not sought to date.
15	Aquatic Fauna Management.	
15A	The person taking the action must implement the action in accordance with Sections 7, 8 and 9 of the <i>Knox Creek Plain Environmental Management Program May 2015</i> , to minimise impacts on listed threatened and migratory species in the Keep River.	An independent audit of compliance with the <i>Knox Creek Plain Environmental Management Program</i> has been undertaken as part of the 2015 Statement 938 compliance assessment for the WA EPA. This audit was undertaken by Strategen Pty Ltd in 2015. The associated compliance assessment report will be submitted to the Department when it is released by the Department of State Development (as proponent for both the Goomig and Knox developments under WA EP Act 1986).

Condition	Requirement	Statement of Progress - 2015
15B	<p>In order to mitigate impacts to listed threatened and migratory species in the Keep River from impacts resulting from the action, the person taking the action must prepare an Aquatic Fauna Management Plan (AFMP), in consultation with the IRG. The AFMP must be submitted for approval by the Minister. The person taking the action must not commence clearance of the Development Area until the AFMP is approved by the Minister. The approved AFMP must be implemented. If a condition of another approval held by the proponent requires an AFMP, the proponent may meet the relevant requirements of both conditions by submitting a single plan. If a single plan is submitted, the plan must identify to which approval the sections of the plan relate. The AFMP must include:</p>	<p>The <i>Knox Creek Plain Aquatic Fauna Management Plan</i> was submitted to the Department for Ministerial approval on 4 January 2016.</p> <p>The Goomig Independent Review Group, established under the associated EPBC Approval 2010/5491, cannot be directly applied to the Knox Creek Plain at this stage as a different proponent holds the Goomig approval. Nonetheless, there is a fifty per cent overlap in Goomig and Knox IRG membership.</p>
15B(i)	<p>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>), now known as Largetooth Sawfish (<i>Pristis pristis</i>). The methodology of the baseline surveying program must be developed in consultation with the IRG. 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 three sites in the Keep River estuary.</p>	<p>This action has been completed under the requirements of the Goomig EPBC Approval 2010/5491. The Knox Creek Plain approval relates to the same aquatic system and KAI has adopted, under guidance of both IRGs, the findings of the baseline studies and the associated water quality triggers and management responses.</p>
15B(ii)	<p>An outcome based risk assessment which is based on data collected during the baseline monitoring program and other relevant data to determine the potential risks to the listed threatened species named in Condition 15.B.i above as well as for the listed vulnerable Green Sawfish (<i>Pristis zijsron</i>) and the listed migratory Australian Snubfin Dolphin (<i>Orcaella heinsohm</i>) and Indo Pacific Humpback Dolphin (<i>Sousa chinensis</i>), at an individual and local population level.</p>	<p>An outcome-based risk assessment was completed under the Goomig EPBC Approval 2010/5491 in 2015. Extension to additional species will be undertaken in 2016 under the Aquatic Fauna Management Plan requirements.</p>

Condition	Requirement	Statement of Progress - 2015
15B(iii)	Seasonal, site-specific baseline water quality and flow trigger values for the Keep River listed threatened and migratory species determined with reference to the ANZECC guidelines and the advice of the IRG. Until trigger values are established with the advice of the IRG, ANZECC guidelines trigger values for systems with high conservation/ecological value (as defined in the ANZECC guidelines) must be used. Sample analytes must also be determined with the advice of the IRG.	Trigger values for the Keep River have been established by the Goomig IRG under EPBC 2010/5491 requirements. These triggers have been endorsed by both the Goomig and Knox IRGs.
15B(iv)	A monitoring program for the Keep River, Keep River pools, on the Development Area, and of relevant groundwater sites and parameters to be undertaken to monitor water quality and flow with the purpose of enabling early detection of changes so that corrective action can be taken to ensure that trigger values are not exceeded during construction and operation.	A monitoring program for the Keep River has been established under the oversight of the Goomig IRG within the EPBC 2010/5491 requirements. Monitoring program details are included in the <i>Knox Creek Plain Aquatic Fauna Management Plan</i> which has been submitted for approval.
15B(v)	A method or mechanism for predicting, modelling and/or monitoring the water quality of the seasonal first flush of water capable of detecting water quality trigger levels for listed threatened and migratory species, developed in consultation with the IRG. This may include onsite monitoring.	Dilution calculation approaches are being developed and refined under the guidance of the Knox and Goomig IRGs. This is included in the <i>Knox Creek Plain Aquatic Fauna Management Plan</i> which has been submitted for approval.
15B(vi)	A targeted aquatic fauna monitoring program to be undertaken during construction and operation to measure the success of management measures to inform an adaptive management approach.	The targeted aquatic fauna monitoring program has been considered by both the Knox and Goomig IRGs and has been included in the <i>Knox Creek Plain Aquatic Fauna Management Plan</i> which has been submitted for approval.
15B(vii)	Details of management objectives, management actions, performance standards, corrective actions should trigger values be reached, adaptive management and contingency measures to mitigate impacts on listed threatened and migratory species in the Keep River from changes to flow, water quality from surface water, stormwater and groundwater during construction and operation.	Management responses are included in the <i>Knox Creek Plain Aquatic Fauna Management Plan</i> which has been submitted for approval.

Documentation cited in Table 1 can be provided upon request.

## 3.0 References

Kimberley Boab Consulting, 2015, *Knox Creek Plain Environmental Management Program May 2015*. Prepared for Kimberley Agricultural Investment Pty Ltd, Kununurra.

Kimberley Boab Consulting, 2016, *Knox Creek Plain Aquatic Fauna Management Plan*. Prepared for Kimberley Agricultural Investment Pty Ltd, Kununurra.

Strategen, 2016, *Ord River Irrigation Area Stage 2 (M2 Supply Channel) Compliance Assessment Report - Statement 938*. Prepared for LandCorp acting on behalf of the Department of State Development, Perth.