5-2017

EPBC 2010/5491 Annual Environmental Report 1 May 2016 – 30 April 2017

Department of Primary Industries and Regional Development, Western Australia

Government of **Western Australia**
Department of **State Development**

EPBC 2010/5491
Annual Environmental Report

1 May 2016 – 30 April 2017

1. Introduction

This 2017 Ord EPBC Compliance Report has been developed in accordance with Condition 3 of the Federal Environmental Approval for the Weaber Plain Development Project, EPBC 2010/5491.

1.1 Project Background

The Ord River Irrigation Expansion Project is a Western Australian State Government initiative that will increase the size of the Ord irrigation area to approximately 28,000ha of agricultural land.

The State and Kimberley Agricultural Investment Pty Ltd have commenced developing land for irrigated agriculture across the Weaber Plain, located north-northeast of Kununurra in the eastern Kimberley region of WA (Figure 1).

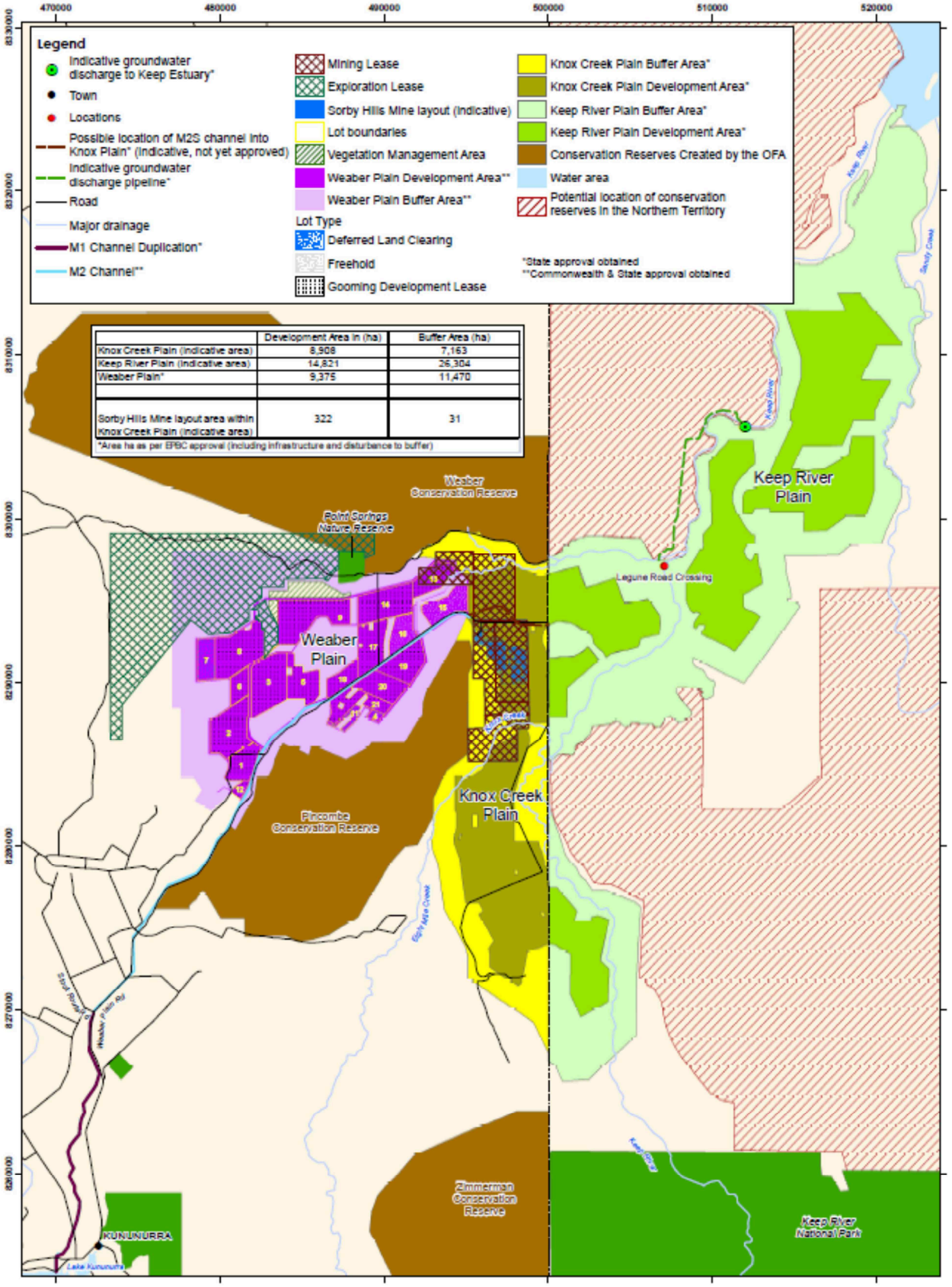
The Weaber Plain is immediately northeast of the existing Ord River Irrigation Area (ORIA), with the development representing the second stage of the ORIA scheme. The development is centred on a new major irrigation channel (the 'M2 channel'), which extends from a point partway along the existing M1 irrigation channel releasing irrigation water from Lake Argyle, which is conveyed via the Ord River and Lake Kununurra and gravity-fed to the proposed Development Area.

The land within and surrounding the Weaber Plain Development 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), which includes the protection of vegetation and fauna habitat in six areas across the East Kimberley region over a total area of approximately 188 200 ha (Livistona Range Conservation Area, Pincombe Range Conservation Area, Ningbing Range Conservation Area, Weaber Range Conservation Area, Mt Zimmerman Conservation Area and Packsaddle Swamp Conservation Area).

The traditional owners of land within the Weaber Plain area are the Miriuwung and Gajerrong 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.

The Ord River Irrigation Expansion Project is being managed by the Department of Regional Development as the Lead Agency in conjunction with a range of State Government departments and agencies, including the Department of State Development.

Figure 1 Ord Development Stages and Infrastructure Map



1.2 Project approvals

The Weaber Plain Development Project was referred to the Australian Government Minister for the Environment under Part 3 of the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) on 27 April 2010, by the Department of State Development.

The Minister determined on 11 June 2010 that the proposed action was a controlled action that the project would be assessed by environmental impact statement. On 13 September 2011 approval was received for the Weaber Plain Development Project (EPBC 2010/5491) under sections 130(1) and 133 of the EPBC Act.

1.3 Proponent details

The WA Department of State Development is the current proponent for the Weaber Plain Development Project, under EPBC 2010/5491.

2. Current Status

During this reporting period, work on the Project includes land clearing and infrastructure construction. A total of 7210.97 hectares of agricultural land has been cleared for development by Kimberley Agricultural Investment Pty Ltd (KAI), including 193ha cleared in the dry season of 2016. The first tailwater return system was commissioned, recycling water from Lots 18 and 17 in 2015. A tailwater return system for Lots 3 and 5 was commissioned in 2016. Cropping and irrigation commenced in April 2015.

2.1 Monitoring and management activity

In addition to land development activities, environmental management actions continued in this reporting period. These include groundwater, buffer condition, Gouldian Finch monitoring, and the utilisation of the monitoring gauge at the development stormwater outlet.

Environmental management action detail is provided in Table 1.

Strategic (noxious) weed control continued along with fire monitoring in the buffer. Buffer firebreaks were re-constructed at the commencement of the 2016 dry season.

2.2 Independent Review Group

The Independent Review Group (IRG) was formed in late 2011 as a requirement of Condition 9 of EPBC 2010/5491. The IRG has a Terms of Reference and membership approved by the Federal Minister for the Environment. The functions of the IRG include reviewing hydrological aspects of the action and associated impacts on EPBC Act listed threatened species and providing advice to the Federal Minister for the Environment if requested.

The IRG met in February 2016 and October 2016 and continues to assist the

Proponent in meeting its water-related obligations designed to minimise impact on aquatic Matters of National Significance.

It was agreed at the October 2016 IRG meeting that a request to merge the Weaber Plain and Knox Creek Plain IRGs would be put to the Minister when KAI takes on proponency for the Weaber development.

2.3 Variations to EPBC 2010/5491 and Management Plans

No variation requests for EPBC 2010/5491 or its associated management plans were submitted to the Minister in 2016.

3. Compliance Results

The results of the internal compliance assessment of EPBC 2010/5491 are shown in Table 1.

3.1. Non-compliances

As reported in the previous annual report, on 5th May 2016 the Proponent wrote to the Department of the Environment and Energy regarding a potential non-compliance with EPBC 2010/5491 Condition 7 (buffer management), arising from an incident occurring on 14 April 2016.

The incident involved inadvertent clearing of vegetation along the edge of the buffer area. The incident was assessed as a moderate environmental impact that requires management/ mitigation to be rectified. Cleared trees were left at the site, the grass and plants in the area are intact. Buffer signs had been erected in order to prevent vehicle access to the area. Monitoring of rehabilitation has occurred since this incident.

Additionally, Kimberley Agricultural Investment reported that changes to procedures have been implemented to ensure that future preventative measures will include any proposed clearing marked on a map and discussed, flagged and inspected prior to it being undertaken.

On 17th June 2016, the Proponent wrote to the Department of the Environment regarding an administrative non-compliance with Condition 11L of EPBC 2010/5491. The final Operational Surface Water Model (OSWM) was not submitted within 12 months of the commencement of irrigation. A report providing further detail on the non-compliance and the planned preventative measures was provided to the Department of the Environment and Energy on 5 October 2016.

3.2. Compliance table

Table 1 summarises compliance to date with conditions of EPBC 2010/5491:

EPBC 2010 5491 Annual Environmental Report Table 1		
Condition/ Reference	Requirement	Status
EPBC Approval Condition 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.	
1.1	Submission of written advice regarding commencement from DSD to DoEE by 1 May 2012.	Written advice regarding the anticipated commencement date of the action was provided by DSD to DoEE in a letter dated 03/10/2011. Confirmation that the commencement date of action was 30/04/2012 was provided to DoEE by DSD in a letter dated 07/05/2012, which also contained the Schedule of Works required by Approval condition #4.
EPBC Approval Condition 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.	
2.1.1	Records maintained substantiating all associated or relevant activities	Ongoing
2.1.2	Records made available to DoEE upon request.	Ongoing. No records were requested in the current reporting period.
EPBC Approval Condition 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.	
3.1.1	Compliance report published on website within three months of every 12 month anniversary of the commencement of the action	Annual Environmental Report 2015 submitted to DoEE on 24/6/2016 and uploaded to DSD website on 23/6/2016.

Condition/ Reference	Requirement	Status
3.1.2	Report addresses compliance with each of the conditions of this approval	This report complies with this requirement
3.1.3	Report addresses implementation of management plans specified in the conditions of this approval	This report complies with this requirement
3.1.4	Documentary evidence of date of publication provided to DoEE at the same time as the compliance report is published	EMP Audit 2015 submitted to DoEE and uploaded to website May 2016.
3.1.5	Documentary evidence of non-compliance with any conditions provided to DoEE at the same time as the compliance report is published	On 05/05/2016 the Proponent reported a potential non-compliance with Condition 7 of EPBC 2010/5491. On 17/6/16 the Proponent reported an administrative non-compliance with Condition 11L of EPBC 2010/5491. See Section 3.1 (above).
EPBC Approval Condition 4	The person taking the action must provide a schedule of works to the Department prior to the commencement of the action.	
4.1	Schedule of works provided to DoEE prior to commencement of the action	Completed during a previous reporting period. Written advice regarding the anticipated commencement date of the action was provided by DSD to DoEE in a letter dated 3rd October, 2011. Confirmation that the commencement date of action 30/04/2012 was provided to DoEE by DSD in a letter dated 07/05/2012, which also contained the Schedule of Works required by Approval condition #4.

Condition/ Reference	Requirement	Status
EPBC Approval Condition 5	To avoid and/or to minimise impacts on listed threatened and migratory species, the person taking the action must: A. Not clear more than 9,375 hectares of vegetation (as described in the Supplementary Environmental lmpact Statement); B. Establish a Buffer Area of at least 11,470 hectares (as shown in Figure 2 of the Supplementary Environmental lmpact Statement), to be managed for conservation in perpetuity; C. Not clear any Gouldian Finch breeding habitat that is known to have been utilised by the Gouldian Finch; D. Use no more than 120 GL of water per water year from the Ord River System for irrigation in the development area; E. Discharge groundwater only in the K1 pool or downstream in the Keep River estuary (as identified in Figure 5 of the Supplementary Environmental lmpact Statement).	
5.1	No more than 9375 ha of vegetation cleared (as per SEIS)	Development of land for irrigation commenced in 2013. Total clearing for 2013-2016 is 8125.09 ha, of which 7210.97ha has been cleared for irrigation and 914.12ha has been cleared for infrastructure.
5.2.1	Buffer Area of at least 11 470 ha established	11546.1021ha buffer established. The titles have been developed and are currently being processed by the WA Department of Lands.
5.2.2	Buffer Area to be managed for conservation in perpetuity	The wording for the memorial on titles (*The land is the subject of EPBC Approval 2010/5491 made by the Federal Minister of Environment under Part 3 of the Environment Protection and Biodiversity Conservation Act 1999 (Cwth) affecting the use or enjoyment of the land*) was agreed by DoEE November 2012. The titles have been developed and are currently being processed by the WA Department of Lands.
5.3	Known Gouldian Finch breeding habitat not cleared of vegetation cleared (as per SEIS)	All of the known Gouldian Finch breeding habitats are within the Buffer Area. Buffer clearing occurred in Area 11 (south of lot 21) and some tracks. No clearing in Gouldian Finch areas has occurred.
5.4	No more than 120 GL of water per water year from the Ord river has been used	Irrigation commenced in 2015. A total of 8.25GL were applied to Lots 3, 5, 14, 17 and 18 (in addition to construction water utilised on other lots) during 2016. A total of 14.32GL were transferred to the Goomig development between April 2016 and December 2016. Distribution losses due to large channel sizes (therefore high evaporation and seepage relative to farm scale) account for a substantial proportion of the water not used on farms.

Condition/ Reference	Requirement	Status
5.5	Discharge groundwater only in the K1 pool or downstream in the Keep River estuary (as per SEIS)	N/A. Groundwater was not discharged during the reporting period.
EPBC Approval Condition 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: A. 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 B. 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 management projects such as, but not limited to, the Ecofire project conducted in the northern and central Kimberley (Rangelands NRM 2011, http://www.rangelandswa.com.au/pages/150/ecofire) and must be developed in close consultation with a Gouldian Finch expert; C. 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 D. 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; E. 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; F. Performance standards in relation to the Gouldian Finch population; G. Adaptive management triggers should performance standards not be met and contingency measures to be implemented if this occurs; • An annual audit and review of the effectiveness of management measures, operating controls and implementation of any required improvements to management conditions; • Protocols and timelines for review and reporting to the Department. • The approved Gouldian Finch Conservation Plan must be implemented.	

Condition/ Reference	Requirement	Status
6.1.1	Gouldian Finch Conservation Plan (GFCP) prepared	Completed during a previous reporting period. Revised approved version dated February 2014 uploaded to DSD website on 12/9/2014.
6.1.2	GFCP prepared in consultation with the WA DEC and a Gouldian Finch (GF) expert	Completed during a previous reporting period. The GFCP was prepared in consultation with WA DEC and Dr Sarah Pryke, a Gouldian Finch expert working at Australian National University (ANU). A letter seeking the Department of Environment and Conservation (DEC) comments on the GFCP and the BMP was sent on the 15th November, 2011 was responded to by DEC on 30/11/2011. Consultation with a GF expert was undertaken during the development of the GFCP with Dr Sarah Pryke (see 6.1.3). Feedback on the GFCP was provided through "Save the Gouldian Fund" on the 25/10/2011.
6.1.3	Gouldian Finch Expert	Completed during a previous reporting period. Dr Sarah R. Pryke is the nominated GF expert and has over 12 years of experience in ecology, as well as 7 years of experience in GF ecology and management.
6.1.4	The GFCP must be submitted for approval by the Minister	Completed during a previous reporting period. The GFCP was submitted for approval on the 9th December, 2011 and approval was confirmed in a letter dated the 10/04/2012.
6.1.5	Clearance of farm lots must not be undertaken until the GFCP is approved	Completed during a previous reporting period. The GFCP was approved on 10/04/2012 prior to the clearing of farm lots, which commenced on or after 18/06/2013.
6.2.1	GFCP includes baseline surveys of the quality and distribution of Gouldian Finch feeding habitat in the Buffer Area	Completed during a previous reporting period. Section 3.5, Table 3, Item 1 of the GFCP requires "identifying and assessing the quality of the feeding areas" which implies that the distribution of the feeding habitat must be mapped in order to establish the quality of the feeding habitat. The GF Wet Season Feeding Grasses and Habitat Report was produced in May 2013.
6.2.2	GFCP includes annual monitoring of breeding populations, including timing and reproductive outputs	Section 3.5, Table 3, Item 3 of the GFCP requires annual monitoring of breeding populations, including timing and reproductive outputs. The 2015 GF Breeding Surveys Report was produced in July 2015. The 2016 GF Breeding Surveys report was completed by the Save the Gouldian Fund in September 2016. The reported indicated 32 GF nests were located in artificial breeding boxes installed in Goomig buffers in 2013, compared to 25 in 2015 and 9 in 2014.

Condition/ Reference	Requirement	Status
6.2.3	GFCP includes wet-season monitoring of foraging activity in critical wet-season feeding areas in close proximity to breeding areas.	Section 3.5, Table 3, Item 8 of the GFCP requires annual wet-season monitoring of foraging activity in critical wet-season feeding areas in close proximity to breeding areas. The GF Non Breeding Population and Habitat Assessment was produced in April 2016 and includes wet-season monitoring of foraging activity in critical wet-season feeding areas in close proximity to breeding areas. The 2016 GF breeding report indicates wet season foraging on native *Sarga* (sorghum) species.
6.2.4	GFCP includes mapping and annual monitoring of phenology and productivity of wet season feeding habitat and assessment of their use by Gouldian finches	Complete. Section 3.5, Table 3, Item 9 of the GFCP requires mapping and annual monitoring of phenology and productivity of wet-season feeding habitat and assessment of their use by Gouldian finches. The GF Non Breeding Population and Habitat Assessment, dated May 2016, covers the period September 2015 to March 2016, and includes annual monitoring of phenology and productivity of wet season feeding habitat and assessment of their use by Gouldian finches. The 2016 GF breeding report, and the associated 2016 GF Non-breeding
6.3.1	Fire Management Plan (FMP) developed	Completed during a previous reporting period. The FMP has been developed April, 2012. The Fire Management Plan has been incorporated into the EMP.
6.3.2	FMP must incorporate relevant findings from fire management projects such as, but not imited to, the Ecofire project	Completed during a previous reporting period. The FMP incorporates relevant findings from the Ecofire project, as well as numerous other findings from fire management projects.
6.3.3	FMP must be developed in close consultation with a Gouldian Finch expert	Completed during a previous reporting period. Consultation with a GF expert was undertaken during the development of the FMP with Dr Sarah Pryke (see 6.1.3). Feedback for the FMP was provided through “Save the Gouldian Fund” on the 25/10/ 2011.

Condition/ Reference	Requirement	Status
6.3.4	Gouldian Finch Expert	Completed during a previous reporting period. Dr Sarah R. Pryke is the nominated GF expert and has over 12 years of experience in ecology, as well as 7 years of experience in GF ecology and management. Save the Gouldian Fund continues to provide expert advice and undertake required monitoring.
6.3.5	FMP implemented	Mosaic burning occurred during the reporting period.
6.4	Vegetation corridors widened to a minimum width of 400m (including between Lots 5 and 18 and Lots 9 and 14)	Completed during a previous reporting period. Section 3.4, Table 2, Item 3 of the GFCP covers this requirement. It was noted on the surveyors Project Map provided by McMullen Nolan Surveyors that the vegetation corridor between lots 5 and 18 has been widened to 450m, while the corridor between lots 9 and 14 has been widened to 400m. The land between lot 17 and lot 16 does not link any buffer or conservation areas, and therefore does not constitute a Vegetation Corridor. On April 14 2016, approximately 3.35 hectares of corridor was accidentally cleared, between lots 5 and 18, adjacent to Moonamang Road. An incident report has been prepared and rehabilitation steps undertaken, including re-spread of vegetation and protection from vehicle access. This land does not contain Gouldian Finch breeding habitat.
6.5	No utilised breeding habitat has been cleared	GF breeding habitat has not been cleared. See Condition 5.3 above.
6.6.1	Breeding hollows salvaged and relocated to Buffer Area	Section 3.4, Table 2, Items 4 and 5 of the GFCP cover this requirement. Breeding hollows have been salvaged and the nesting boxes have been constructed and installed during 2013. No change in the current reporting period.

Condition/ Reference	Requirement	Status
6.6.2	Results of breeding hollow use recorded as part of the monitoring program	The GFCP covers the annual monitoring of breeding populations. Breeding hollows have been salvaged and the nesting boxes were constructed and installed during 2013. GF Breeding Surveys Report produced in September 2016. Key results included: • Total of 32 Gouldian finch active nests, all located in the artificial nest boxes installed in the 5 breeding habitats in 2013. • One pair banded in 2015 and one male that successfully bred in 2015 bred again in 2016 (in the same breeding area). • Continued increase in breeding success this year (2016) compared to last year. • (26 nests in 2015; 9 nests in 2014).21 Gouldian finches were located feeding during transect surveys, all in the breeding habitats. • Birds were sighted feeding predominantly on native Sarga species (sorghum).
6.7	Performance standards in relation to the Gouldian Finch population	Completed during a previous reporting period.
6.8	Adaptive management triggers and contingency measures implemented if performance standards not met	Not yet required. The monitoring regime set out in Section 3.4, Table 3 of the GFCP outlines trigger points and corrective actions (contingency measures) to be undertaken if performance standards have not been met. Contingency measures identified by Save the Gouldian Fund were not required to be implemented during the reporting period. Findings from the Gouldian Finch Non-Breeding Habitat and Vegetation Surveys include: "Removing cattle, as stated in the Buffer Management Plan (Strategen 2011), together with the Fire Management Plan (Strategen 2011), has substantially increased the availability and productivity of the Gouldian finch seeding grasses, and Gouldian finches have also returned to the area."

Condition/ Reference	Requirement	Status
6.9	Management measures audited and reviewed and improvements made if required	Annual auditing and performance reporting is covered in Section 3.6 of the GFCP. Review of these reports and revision of the GFCP is covered in Section 3.7 of the GFCP. “Save the Gouldian Fund” undertakes annual audits. Findings from the Gouldian Finch Non- Breeding Habitat and Vegetation Surveys included "Removing cattle, as stated in the Buffer Management Plan (Strategen 2011), together with the Fire Management Plan (Strategen 2011), has substantially increased the availability and productivity of the Gouldian finch seeding grasses, and Gouldian finches have also returned to the area."
6.10	Protocols and timelines for review and reporting to DoEE	Completed during a previous reporting period. Timelines for review and reporting to DoEE are covered in Sections 3.6 and 3.7 of the GFCP.
6.11.1	GFCP implemented as approved	The relevant requirements of the GFCP have been implemented as approved.
6.11.2	Monitoring program implemented	The monitoring programs have been implemented with key reports produced including the Gouldian Finch Habitat and Vegetation Surveys March 2014, the Gouldian Finch Breeding Report 2015 and the Gouldian Finch Non-Breeding Habitat and Vegetation Surveys March 2014; and the Gouldian Finch Breeding and Non-Breeding Surveys both undertaken in 2016.
6.11.3	FMP implemented	Complete. See Condition 6.3.1.
6.11.4	Widening of all vegetation corridors (including between Lots 5 and 18 and Lots 9 and 14) to a width of 400m implemented	Completed during a previous reporting period. See Condition 6.4.
6.11.5	Avoidance of clearing any breeding habitat implemented	See Condition 6.5
6.11.6	Breeding hollows salvaged and relocated to Buffer Area implemented	Completed during a previous reporting period. Breeding hollows have been salvaged and the nesting boxes have been constructed and installed during 2013.
6.11.7	Results of breeding hollow use recorded as part of the monitoring program	Breeding hollows have been salvaged and the nesting boxes were constructed and installed during 2013. Annual monitoring undertaken by Save the Gouldian Finch Fund.

Condition/ Reference	Requirement	Status
6.11.8	Performance standards in relation to the Gouldian Finch population implemented	Completed during a previous reporting period. See The Gouldian Finch Performance Standards were developed in October 2013.
6.11.9	Adaptive management triggers and contingency measures implemented if performance standards not met	Adaptive management measures not yet required. The monitoring regime set out in Section 3.4, Table 3 of the GFCP outlines trigger points and corrective actions (contingency measures) to be undertaken if performance standards have not been met. Findings from the Gouldian Finch Non-Breeding Habitat and Vegetation Surveys included "Removing cattle, as stated in the Buffer Management Plan (Strategen 2011), together with the Fire Management Plan (Strategen 2011), has substantially increased the availability and productivity of the Gouldian finch seeding grasses, and Gouldian finches have also returned to the area."
6.11.10	An annual audit and review of the effectiveness of management measures, operating controls and implementation of any required improvements to management conditions implemented	A review of management measures was conducted with referral to the Save the Gouldian Finch Fund, as part of the proponents environmental management program and detailed in the GF Breeding Report and GF Non-Breeding Habitat and Vegetation Surveys Report.
6.11.11	Protocols and timelines for review and reporting to DoEE implemented	Completed. Refer condition 3.

Condition/ Reference	Requirement	Status
EPBC Approval Condition 7	In order to protect listed threatened species, the person taking the action must prepare a Buffer Management Plan (BMP), which must include; • 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 (Dasyurus hallucatus), the vulnerable Red Goshawk (Erythrotriorchis radiates) and the vulnerable Northern Shrike-tit (Falcunculus frontatus whiter). Surveys must be completed prior to 31 December 201 2. • Details of tenure and management arrangements of the Buffer Area that provides assurance that the area will be conserved and managed in perpetuity; • Ongoing management practices that will be applied to the Buffer Area to maximise benefits to listed threatened species; • Methods to control human disturbance of the Buffer Area, including restriction of vehicular access; • 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; • Fire management of the Buffer Area to maximise benefits to listed threatened species; • Methods to minimise the impacts of construction activities on the Buffer Area; • Rehabilitation of disturbed portions of the Buffer Area to benefit listed threatened species; • Responsibilities and provision of resources for the ongoing management of the Buffer Area; • Protocols and timing of review and reporting to the Department. • 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.	
7.1.1	Buffer Management Plan (BMP) prepared	Complete. The BMP has been prepared in consultation with the WA DEC and approved by DoEE. The BMP was revised early 2014.
7.1.2	BMP prepared in consultation with WA DEC	Completed during a previous reporting period. A letter seeking the Department of Environment and Conservations (DEC) comments on the GFCP and the BMP was sent on the 15/11/2011 and was responded to by DEC on the 30/11/ 2011.

Condition/ Reference	Requirement	Status
7.1.3	BMP submitted for approval by the Minister	Complete. The BMP was submitted for approval on the 10/04/2012 and approval was confirmed in a letter from DoEE dated the 10/04/2012. A revised BMP was approved on 17/03/2014.
7.1.4	Clearance of farm lots must not be undertaken until the BMP is approved	Completed during a previous reporting period. The BMP was approved on the 10/04/2012, prior to the clearing of farm lots, which commenced on or after 18/06/2013.
7.2.1	BMP includes vegetation and fauna surveys and mapping of the Buffer Area	Completed during a previous reporting period. Refer BMP. Surveys undertaken 2012/13
7.2.2	Fauna surveys must be targeted for EPBC Act listed threatened species that are likely to occur in the Buffer Area	Completed during a previous reporting period. Surveys undertaken 2012/13
7.2.3	BMP developed in consultation with WA DEC with DoEE-approved methodologies	Completed during a previous reporting period. A letter seeking the Department of Environment and Conservation (DEC) comments on the GFCP and the BMP was sent on the 15/11/2011 and was responded to by DEC on the 30/11/2011.
7.2.4	Survey results, including maps showing the location of any breeding, nesting or denning habitat identified in the Buffer Area, provided to DoEE.	Completed during a previous reporting period. Surveys undertaken 2012/13
7.2.5	Survey program includes Northern Quoll, Red Goshawk and Northern Shrike-tit	Completed during a previous reporting period. Surveys undertaken 2012/13
7.2.6	Surveys must be completed prior to 31 December 2012	Completed during a previous reporting period. Surveys undertaken 2012/13

Condition/ Reference	Requirement	Status
7.3	Assurance Buffer Area conserved and managed in perpetuity	Section 1.4.1 of the BMP outlines Tenure and responsibility for the buffer area, which is zoned as a Conservation/Environmental Protection Reserve under the Shire of Wyndham-East Kimberley Town Planning Scheme No.7 (2010). The site is currently being occupied as a crown lease, however wording for the memorial to be placed on titles was agreed by DoEE in November 2012.
7.4	Ongoing management practices applied to the Buffer Area to maximise benefits to listed threatened species	Ongoing management actions applied to the Buffer Area are outlined in Section 2.4, Table 3 of the BMP. The Statement 938 / EMP compliance audit, undertaken annually, includes assessment of multiple buffer management actions.
7.5	Human disturbance of the Buffer Area controlled, including restriction of vehicular access	Numerous methods to control human disturbance of the Buffer Area are included in Section 2.4, Table 3 of the BMP, including restriction of vehicular access. Tracks in place for monitoring access (eg groundwater monitoring, weeds, buffer condition).
7.6.1	Buffer Area inspected regularly for weeds, plant pathogens and pest animals	Refer Condition 8. Requirements for inspections of the Buffer Area, methods to prevent the introduction and spread of WPPP and provisions for the quick control of WPPP are set out in Table 14 of the WPPP management Sub-plan. The relationship between the BMP and the WPPPMP is outlined in Section 1.3, Table 2 of the BMP. The Statement 938 / EMP compliance audit, undertaken annually, includes assessment of multiple buffer management actions, including weed and pest surveys and control.
7.6.2	Methods to prevent the introduction and spread of weeds, plant pathogens and pest animals in the Buffer Area	See condition 7.6.1 above.
7.6.3	Provide for quick control of weeds, plant pathogens and pest animals in the Buffer Area	See condition 7.6.1 above.
7.7	Fire management of the Buffer Area to maximise benefits to listed threatened species	Section 2.4, Table 3, Item 21 of the BMP outlines the requirement to implement the Fire Management Plan (FMP). Firebreaks have been installed in the Buffer Area. Mosaic burning in was undertaken during the 2016 dry season.

Condition/ Reference	Requirement	Status
7.8	Construction impacts on the Buffer Area minimised	Construction completed prior to this reporting period. Section 2.4, Table 3, Items 1-5 and Item 8 of the BMP identify management actions to be undertaken during construction to minimise impacts on the Buffer Area. These relationships are summarised in Section 1.3, Table 2 of the BMP.
7.9	Rehabilitation of disturbed portions of the Buffer Area included to benefit listed threatened species	Section 2.4, Table 3, Item 12 outlines the requirement to rehabilitate disturbed portions of the Buffer Area, as per the Rehabilitation Management Sub Plan set out in Section 12 of the DEMP. Rehabilitation of the accidentally-cleared section of buffer between Lots 5 and 18, as discussed against item 6.4, has commenced and will be monitored over coming seasons. Rehabilitation monitoring (via photographic records) are obtained regularly.
7.10	Responsibilities and provision of resources for the ongoing management of the Buffer Area included.	Section 1.4.1 of the BMP outlines responsibility and provision of resources for the ongoing management of the Buffer Area. Resourced via Kimberley Agricultural investment Pty Ltd (KAI) during the reporting period on behalf of Proponent.
7.11	Protocols and timing of review and reporting to the DoEE included	Complete. Timelines for review and reporting to DoEE are covered in Sections 2.6 and 2.7 of the BMP. Section 2.6 outlines that performance reporting will be implemented consistent with the reporting requirements set out in the Ord River Irrigation Area – Weaber plain Development Project Environmental Management Plan (Ord EMP).
7.12.1	BMP implemented	See information below.
7.12.2	Vegetation and fauna surveys and mapping of the Buffer Area implemented	Completed during a previous reporting period. Assessment and Mapping of vegetation condition within the Weaber Plain Development Project Buffer Area was undertaken by Botanical North, with the report delivered in October, 2011.
7.12.3	Details of tenure and management arrangements of the Buffer Area implemented that provides assurance that the area will be conserved and managed in perpetuity	See also condition 7.3 above.
7.12.4	Ongoing management practices applied to the Buffer Area to maximise benefits to listed threatened species implemented	Refer information below.

Condition/ Reference	Requirement	Status
7.12.5	Methods to control human disturbance of the Buffer Area, including restriction of vehicular access implemented	Restricted access signs at all road entrances to the Buffer Area, with the exception of a public access track, Cave Springs Road, leading to Cave Springs. There is currently a number of signs installed along the boundary identifying the Buffer Area as well as signs at entry points to the project area advising of restrictions, including restrictions on pets, weed hygiene, driving off road, and access into the Buffer Area. The environmental induction outlines the requirements for protection of the Buffer Area and is provided to all employees working on site.
7.12.6	Regular and ongoing inspection of the Buffer Area for weeds, plant pathogens and pest animals implemented	Completed during the reporting period by KAI on behalf of the Proponent. Inspection of the Buffer Area is undertaken by the site logistics manager and environmental contractor.
7.12.7	Methods to prevent the introduction and spread of weeds, plant pathogens and pest animals in the Buffer Area implemented	A Weed, Plant pathogen and Pest Management Plan has been developed and implemented on site. Weed control undertaken during the reporting period by KAI on behalf of the Proponent. See Condition 8 below.
7.12.8	Methods for quick control of weeds, plant pathogens and pest animals in the Buffer Area implemented	Weed control undertaken during the reporting period by KAI on behalf of the Proponent.
7.12.9	Fire management of the Buffer Area implemented (to maximise benefits to listed threatened species)	Refer to 6.3.1 above. Mosaic burns undertaken in 2016.
7.12.10	Methods to minimise the impacts of construction activities on the Buffer Area implemented	Construction of off-farm infrastructure was completed 2013. Current activity does not impact on buffer area. GPS installed in vehicles clearing land to ensure buffer protected.
7.12.11	Rehabilitation of disturbed portions of the Buffer Area implemented (to benefit listed threatened species)	Complete. Refer to EPBC 7.9. Area 11 includes a borrow pit, which has been constructed in an approved location within the Buffer Area west of Lot 21. Top section of the hill in Area 11 rehabilitated 2013. Fenced area and removal of cattle have resulted in increased native flora and fauna in Buffer area.

Condition/ Reference	Requirement	Status
7.12.12	Responsibilities and provision of resources for the ongoing management of the Buffer Area implemented	Buffer management undertaken during the reporting period by KAI on behalf of the Proponent.
7.12.13	Protocols and timing of review and reporting to the DoEE implemented	Completed. Refer condition 3.
EPBC Approval Condition 8	In order to protect listed threatened species, the 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.	
8.1.1	Action undertaken in accordance with WPPPMP	Actions required to be undertaken under the WPPPMP are outlined in Table 14 of the Ord River Irrigation Area – Weaber Plain Development Project Environmental Management Program (DEMP). Weed surveys undertaken and a weed control program has been implemented during the reporting period.
8.1.2	Action undertaken in accordance with any amendments to the WPPPMP	The actions undertaken on site were undertaken in accordance with version 3 of the DEMP, approved in October 2013.
8.1.3	Annual report submitted to DoEE on compliance with the plan	2016 Report submitted to DoEE on 24/6/2016
8.1.4	Annual report submitted no later than 12 months after commencement of the action	Completed during a previous reporting period.

Condition/ Reference	Requirement	Status
EPBC Approval Condition 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: • The group must be funded, resourced and managed by the person taking the action • 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; • 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 Discharge Management Plan and Groundwater Management Plan, to the Minister for approval; • 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); • The group must assess any exceedance of trigger values and advise changes as required; • 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;	
9.1.1	IRG established	Completed during a previous reporting period. Approval of all members of the IRG was provided in a letter from DoEE dated 10/11/2011, which also provided approval of the IRG terms of reference.
9.1.2	IRG established prior to the submission of the AQFMP, SGDMP & GMP to the Minister for approval	Completed during a previous reporting period. The AFMP, SGDMP, and GMP were all submitted to DoEE for approval after the establishment of the IRG on the 10th November, 2011. The correct version of the AFMP was submitted to DoEE via email on 11th May, 2012. Both the SGDMP and the GMP were submitted to DoEE via email on the 15th February, 2012.
9.2	IRG funded, resourced and managed	IRG funded and executive support provided through Department of Regional Development, on behalf of the Proponent.

Condition/ Reference	Requirement	Status
9.3.1	Two IRG members are technical experts with at least 5 years experience in northern Australia surface water and groundwater and one member is a Glyphis and Pristis expert	Completed during a previous reporting period. Approval of all members of the IRG was provided in a letter from DoEE 10/11/2011
9.3.2	IRG group members approved by Minister	Completed during a previous reporting period. Approval of all members of the IRG was provided in a letter from DoEE 10/11/2011
9.3.3	Any changes to the IRG membership must be approved by the Minister	There has been no change to membership during the reporting period.
9.4.1	IRG terms of reference, with frequency of proposed meetings and chairing and quorum arrangements prepared by DSD	Completed during a previous reporting period. Refer IRG Terms of Reference. Paragraph 3 of Page 3 outlines the proposed meeting frequency of the IRG. Chairing and quorum arrangements are outlined in Paragraph 4 of Page 3. No changes to IRG Terms of Reference during the reporting period.
9.4.2	IRG terms of reference approved by the Minister	Completed during a previous reporting period. Approval of the IRG terms of reference was provided in a letter from DoEE 10/11/2011. No changes to IRG Terms of Reference during the reporting period.
9.4.3	IRG terms of reference approved in writing prior to submission to Minister of AFMP, SGDMP and GMP	Completed during a previous reporting period. The AFMP, SGDMP, and GMP were all submitted to DoEE for approval after the approval of the IRG Terms of Reference on the 10th November, 2011. See condition 9.1.2 above for submission dates.
9.5	IRG advice on any substantive changes to or review of the AFMP, SGDMP and GMP provided	IRG review of delivery of actions and monitoring requirements under the AFMP, SGDMP and GMP occurred in February 2016 and October 2016.
9.6	Exceedance of trigger values assessed and any changes advised by IRG	2015 monitoring report including trigger exceedances (eg turbidity) assessed by IRG at February 2016 meeting. 2016 surface water monitoring report provided to IRG in February 2017.
9.7	Minister seeks advice from IRG	N/A - No advice sought during reporting period.
9.8	Management Plans updated to reflect advice from the IRG	GMP updated to reflect the variation to Condition 12G.

Condition/ Reference	Requirement	Status
EPBC Approval Condition 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: • 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 (Glyphis glyphis), the endangered Northern River Shark (Glyphis garricki), the vulnerable Dwarf Sawfish (Pristis clavata) and the vulnerable Freshwater Sawfish (Pristis Microdon). The methodology of the baseline surveying program must be developed in consultation with the Independent 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; • Details of water quality and flow requirements, including relevant downstream environmental quality parameters, in accordance with ANZECC guidelines; • A monitoring program in the Keep River pools to be undertaken to ensure water quality and flow does not exceed trigger values; • 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; • Details of management objectives, management actions, performance standards and contingency measures to mitigate impacts on listed aquatic fauna species in the Keep River; • 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; • A targeted aquatic fauna monitoring program to be undertaken to measure the success of management measures to inform an adaptive management approach; • Protocols and timelines for review and reporting to the Department. • The approved Aquatic Fauna Management Plan must be implemented.	
10.1.1	Aquatic Fauna Management Plan (AFMP) prepared	Completed during a previous reporting period. The Ord River Irrigation Area - Weaber Plain Development Project Aquatic Fauna Management Plan was prepared and submitted to DoEE via email on 11th May, 2012. No changes to AFMP in this reporting period.

Condition/ Reference	Requirement	Status
10.1.2	WA DEC and IRG consulted	Completed during a previous reporting period. Consultation with IRG was undertaken, evidenced in a Letter dated 9th February 2012 from the Chairman of IRG to the Minister. Email trails (dated 23rd January, 2012) verifying that consultation with the WA DEC was also undertaken.
10.1.3	AFMP submitted for approval by the Minister	Completed during a previous reporting period. The AFMP was received by DoEE for approval by the Minister on 24/09/2012.
10.1.4	Clearance of farm lots not undertaken until the AFMP is approved	Completed during a previous reporting period. The AFMP was approved 24/09/2012 prior to the clearing of farm lots, which commenced on or after 18/06/ 2013.
10.2.1	Baseline surveying program for Speartooth Shark, Northern River Shark, Dwarf Sawfish and Freshwater Sawfish	Completed. 3-year baseline surveys completed 2013. Final report produced 2014. Section 2.3, Table 6, Item 1 of the AFMP includes details that baseline surveying programs for Speartooth Shark, Northern River Shark, Dwarf Sawfish and Freshwater Sawfish completed 2013 tabled at IRG.
10.2.2	Methodology developed in consultation with the IRG	Completed during a previous reporting period. Refer IRG minutes. Methodology has been developed in consultation with IRG.
10.2.3	Surveys conducted over a period of 3 years	Completed (see EPBC 10.2.1) Section 2.3, Table 6, Item 1 of the AFMP includes details that baseline surveys will be conducted over 3 years. 3 year baseline survey program completed in 2013.
10.2.4	Surveys undertaken in the four Keep River pools and at least 3 sites in the Keep River estuary	Completed (see EPBC 10.2.1) Section 2.3, Table 6, Item 1 of the AFMP meets this condition. 3 year baseline survey program completed in 2013.
10.3	Details of water quality and flow requirements in accordance with ANZECC guidelines	Complete. Section 2.3, Table 6, Item 2 of the AFMP covers the requirement for water quality baselines to be established in accordance with ANZECC guidelines. Section 2.3, Table 6, Item 3 of the AFMP outlines the requirement to refine flow trigger values for the Keep River and Border Creek gauging station based on the refined discharge dilution model. The Department of Agriculture and Food Western Australia (DAFWA) monitors flows through the gauging stations, and undertakes water quality sampling. Detailed in DAFWA Resource management technical report 393: Baseline Water Quality in the Lower Keep River.

Condition/ Reference	Requirement	Status
10.4.1	Keep River pools monitoring program undertaken.	Section 2.3, Table 6, Item 2 of the AFMP requires seasonal baseline water quality values to be monitored in the Keep River pools. Additional information is also detailed in the draft KAFMD program dated May 2012. 3 year baseline survey program completed in 2013.
10.4.2	Water quality and flow does not exceed trigger values	Trigger values agreed by the IRG at December 2014 IRG meeting.
10.5	Baseline monitoring program data utilised for an outcome based risk assessment	Baseline monitoring surveys complete and referred to IRG. Aquatic Fauna Outcomes-based Risk Assessment finalised July 2015.
10.6	Details of management objectives, management actions, performance standards and contingency measures to mitigate impacts on listed aquatic fauna species in the Keep River	Completed during a previous reporting period. Section 2.2, Table 5, and Table 6 of the AFMP list environmental objectives and protective actions of the AFMP. Contingency measures are outlined in Table 7 of the AFMP labelled as Corrective Actions. No change in the reporting period.
10.7.1	Border Creek and Keep River inspected regularly for weeds, plant pathogens and pest animals	The annual inspection of Border Creek and Keep River riparian zones occurred in October 2015 as per the WPPP management plan.
10.7.2	Methods to prevent the introduction and provide for quick control of weeds, plant pathogens and pest animals in the Border Creek and Keep River	Completed during a previous reporting period. Section 2.3, Table 6, Item 5 of the AFMP requires that the WPPPMP is implemented, which contains methods to prevent the introduction of WPPP. Section 2.3 Table 7, item 4 of the AFMP provides contingency measures to plan and implement a rapid control program in consultation with relevant agencies and landowners.
10.8	Targeted aquatic fauna monitoring program undertaken to measure the success of management measures	Section 2.3, Table 7, Item 2 of the AFMP details threatened aquatic ecology monitoring at 3 sites in the Keep River estuary (EST1, EST2, EST3). Monitoring program previously undertaken. No aquatic fauna monitoring in 2015. AFMP requires 3 years' pre-development (baseline) and 3-years' post-development. IRG agreed at June 2014 meeting that, because irrigation was not occurring, 2014 could not be considered a 'post-development' year. IRG agreed at June 2015 meeting that the 3-years' post-development aquatic fauna monitoring would begin when 90% of Goomig farmland was under irrigation.
10.9	Protocols and timelines for review and reporting to DoEE	Completed. Refer condition 3.
10.10	AFMP implemented	AFMP approved February 2013. Refer specific items listed above.

Condition/ Reference	Requirement	Status
EPBC Approval Condition 11	In order to protect listed threatened species in the Keep River, the person taking the action must prepare a Stormwater and Groundwater Discharge Management Plan (SGDMP) in consultation with the lndependent 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: • 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; • 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; • A baseline monitoring program for water quality and 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 lndependent Review Group; • Installation of water quality and flow gauging stations capable of sampling first flush discharges at: the stormwater outlet from the Development Area; Border Creek; and in the Keep River, in consultation with the lndependent 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. • Seasonal baseline water quality trigger values for the Keep River must be determined in accordance with ANZECC guidelines and agreed by the lndependent Review Group. Until these trigger values are agreed by the lndependent 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 lndependent Review Group and in accordance with Condition 11 .I; • Details of AUSRIVAS trigger levels for aquatic macro-invertebrates. AUSRIVAS assessment must be undertaken in consultation with the lndependent Review Group and prior to the commencement of irrigation;. • 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 and the Keep River system). This must be conducted prior to commencement of irrigation and annually during operation • An adaptive groundwater and stormwater discharge program to provide for adaptive management of the discharge of stormwater and surplus groundwater that includes:	

Condition/ Reference	Requirement	Status
	i. discharge rules and rates and contingency actions; and ii. monitoring locations and requirements including infrastructure and setup; iii. design and location of dewatering infrastructure; iv. design and location of discharge infrastructure; v. written evidence of any Northern Territory Government permits that are required for discharge of groundwater; and vi. management measures that ensure discharge of water will not impact on water quality in Border Creek and Keep River, including erosion protection measures.	
	• Establishment of a list of key analytes to be sampled as part of ongoing water quality monitoring in consultation with the lndependent Review Group. The list must be updated annually based on monitoring results • 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 .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 lndependent Review Group. • 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. • 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. • 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 the 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. • Protocols and timelines for review and reporting to the Department. • The approved Stormwater and Groundwater Discharge Management Plan must be implemented. • Note: To avoid doubt, if a condition of another 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.	

Condition/ Reference	Requirement	Status
11.1	SGDMP prepared in consultation with the IRG	Completed during a previous reporting period. Preparation of the SGDMP was undertaken in consultation with the IRG, evidenced in a letter from the chair of the IRG to DSEWPaC approving the SGDMP, 09/02/2012. Administrative variation to SGDMP approved February 2014.
11.2.1	Runoff and discharge of pollutants managed by Tailwater Management System	Section 1.2.3 of the SGDMP states that runoff and discharge of pollutants from the project area will be managed by a Tailwater Management System (TMS). Section 2.3, Table 3, Item 2 of the SGDMP details the requirement to build the TMS prior to commencement of irrigation to each farm lot. Additional details of the proposed tailwater management infrastructure are provided throughout the Weaber Plain Development EMP, including, but not limited to Sections 7.2.5, 8.2, 8.6 (Table 18, Item 14), 9.2, 9.6.1, and 10.1.3. Tailwater return included in development design. Tailwater recycling dam (Lots 14/17/18) constructed by Kimberley Agricultural Investment Pty Ltd (KAI). Tailwater recycling dam (Lots 3/5) were commissioned in 2016.
11.2.2	Tailwater Management System actively managed to minimise the discharge of stormwater into the Border Creek and Keep River	Tailwater Return System operations commenced with irrigation of Lots 17 and 18 in 2015. Tailwater system for Lots 3 and 5 commissioned in 2016. 2016 Goomig-Knox Surface Water Monitoring Report includes success of tailwater management (no dry season flows).
11.2.3	Tailwater Management Systems constructed and operational prior to commencement of irrigation	Section 1.2.3 and Table 3, Item 2 of the SGDMP details that the TMS is to be developed prior to the commencement of irrigation. Tailwater Return System operations commenced with irrigation of Lots 17 and 18 in 2015. Tailwater system for Lots 3 and 5 commissioned in 2016.
11.3	Management actions to prevent runoff transporting pollutants downstream should the agreed tailwater retention capacity be reached	Tailwater Return System operations commenced with irrigation of Lots 17 and 18 in 2015 and Lots 3 and 5 in 2016. No tailwater discharge into Border Creek occurred in 2015 or 2016. Refer EPBC 11.2.2. Section 1.2.5 and Table 3, Item 4, 17, 18, 19 and 20 of the SGDMP detail management actions to prevent runoff transporting pollutants downstream. Section 1.2.5 outlines that in the event of prolonged or intense rainfalls, overflow will be directed to a designated point as controlled discharge, to flow through and around the project area into the 107,000 ha Border Creek catchment. Section 1.2.5 and Table 3, Item 4 outlines that no chemicals and fertilisers will be used when tailwater retention capacity is unavailable.

Condition/ Reference	Requirement	Status
11.3.1	Management actions must include diversion of on-farm stormwater to irrigation channels in periods of low flow	Tailwater return includes recycling of water into on-farm channels. Section 1.2.5, Figure 3, and Table 3, Item 15, 17 of the SGDMP detail the diversion of on farm stormwater to irrigation channels in low flow periods. The tailwater return systems, where applied central to 2-3 farming lots (eg on Lot 14 to manage Lot 17 and Lot 18 tailwater) enable water to be gravity fed into Lot 14 on-farm channels (head-ditches).
11.4.1	Baseline monitoring program for water quality and hydrology in Border Creek and Keep River	Completed. Refer to EPBC 10.3. Section 2.3, Table 3 item 7 of the SGDMP details a management action to implement a three year baseline monitoring program of aquatic ecology (fish and aquatic macro-invertebrates), water quality and hydrology in Border Creek, the Keep River estuary and the four Keep River pools (K4, K3,K2 and K1).
11.4.2	Baseline monitoring program completed prior to commencement of irrigation and prior to any release of stormwater or groundwater from farms	Completed. Refer to EPBC 10.3. Section 2.3, Table 3, item 7 of the SGDMP details a management action to implement a three year baseline monitoring program. Baseline monitoring undertaken.
11.4.3	Methodologies and sampling locations established in consultation with IRG	Completed during a previous reporting period. Refer IRG minutes. IRG have met on 3 occasions and discussed specific aspects of the plans and sampling locations.
11.5.1	Installation of water quality and flow gauging systems capable of sampling first flush discharges at the storm water outlet from the Development Area and installation of flow gauging stations at Border Creek; and in the Keep River	Water quality and flow gauging systems have been installed at Border Creek and in the Keep River. DW1 Gauging Station constructed and operational, including refrigerated auto sampling unit and remote telecommunications linkage into Goomig SCADA. Data from Northern Territory gauging stations (Border Creek, Keep River) informs the Operational Surface Water Model and is available online at www.dlrm.nt.gov.au Failed telecommunications meant that the Goomig SCADA was not able to be read in 2016, however, as reported in the 2016 Goomig-Knox Surface Water Report, alternative controls and a physical monitoring regime were implemented to ensure risk to Keep River MNES was minimised. No dry season flows occurred. First flush analyses are documented in the 2016 Goomig-Knox Surface Water report.
11.5.2	IRG consulted	Completed during a previous reporting period. Evidence of IRG consultation has been provided in a letter of approval to Minister 09/02/2012. Refer IRG minutes for evidence of ongoing consultation.

Condition/ Reference	Requirement	Status
11.5.3	Sampling must include analytes identified in Condition 11 .I	Completed during a previous reporting period. The proposed management and monitoring strategy detailed in the SGDMP includes intense, flow-proportional water quality monitoring of key analytes at the stormwater outlet. Following the analysis of baseline reports and the annual chemical risk assessment, the IRG has endorsed a set of indicator analytes. These are monitored in tailwater, Border Creek (DW1GS) and the Keep River, and reported in the 2016 Surface Water Monitoring Report.
11.5.4	Sampling must have the required accuracy to measure low flow rates	Completed during a previous reporting period. Section 1.2.5, Section 2.3 Table 3, Item 13, and Table 4 Item 2 of the SGDMP ensure the flow gauging stations at Border Creek and the Keep River have the required accuracy to measure low flow rates in consultation with the Northern Territory NRETAS and IRG. DW1GS telecommunications issues have prevented obtaining the required data, however downstream back-up via the NT Government's Border Creek gauging station, combined with visual/physical flow monitoring at the time of first flush, has occurred.
11.5.5	Gauging stations established prior to the commencement of irrigation	Completed during a previous reporting period. Refer to EPBC 11.5.1, above. Figure 2 of the SGDMP also show Indicative storm water gauging stations, flood protection levee and drains. DW1 Gauging Station completed April 2014.
11.5.6	For any release of first flush water, monitoring must be conducted more than once a day and for any other storm water flows monitoring must be conducted at least once per day	Refrigerated auto sampler installed at DW1 Gauging Station. Remote activation (taking samples via Goomig SCADA) enables once daily or multiple daily samples). Section 1.2.5, Section 2.3 Table 3, Item 10 - 14, and Table 4 Item 2 of the SGDMP highlights water quality and monitoring capabilities, including sub-daily sampling. First flush manual sampling undertaken on 22 and 23 November 2016. It is not practical or necessary to sample stormwater on a daily basis during the 4-6 months of wet season stormwater flow once significant flows have commenced.
11.6.1	Seasonal baseline water quality trigger values for the Keep River determined in accordance with ANZECC guidelines and agreed by IRG	Completed during a previous reporting period. Trigger values agreed at December 2014 IRG meeting.

Condition/ Reference	Requirement	Status
11.6.2	Until these trigger values are agreed by the lndependent Review Group, ANZECC guidelines trigger values for systems with high conservation/ecological value (as defined in the ANZECC guidelines) must be used	Completed during a previous reporting period. Section 1.2.5 and Table 3, Item 8 and 10 of the SGDMP detail how trigger values will be determined prior to commencement of irrigation. Trigger values agreed at December 2014 IRG meeting.
11.6.3	Sample analytes agreed to by IRG and in accordance with Condition 11.I	Completed during a previous reporting period. Section 1.2.5 and Table 2 of the SGDMP includes sample physio-chemical and biological indicators for storm water and groundwater discharge. The IRG approved the SGDMP in a letter to DoEE dated 9th February, 2012. Trigger values agreed at December 2014 IRG meeting.
11.7	Use of best practice multivariate analyses on species level macro-invertebrate and fish assemblage data, within an adequate experimental design (as defined in the Aquatic Fauna Management Plan required under condition 10), using multiple indices of 'ecological condition' and a 'weight of evidence' approach, to assess any change in ecological health of Keep River pools (K1,K2 & K3) relative to baseline and upstream reference sites.	Condition 11F modified and approved by Minister 28/03/ 2014. Baseline surveys (Aquatic Fauna and Keep River water quality) have informed the trigger values which in turn inform the dilution calculations and risk assessments.
11.8.1	Discharge dilution and release timing model updated prior to commencement of irrigation	KAI, with advice from the IRG, is utilising an actuals-based dilution calculation framework and risk assessment process to assess likely impacts of storm water flow into Border Creek. This approach was presented to and discussed with the IRG in February 2016.
11.8.2	Discharge dilution and release timing model updated annually during operation	KAI, with advice from the IRG, is utilising an actuals-based dilution calculation framework and risk assessment process to assess likely impacts of storm water flow into Border Creek. This approach was presented to and discussed with the IRG in February 2016.

Condition/ Reference	Requirement	Status
11.9.1	An adaptive groundwater and storm water discharge program (AGSDP) to provide for adaptive management of the discharge of storm water and surplus groundwater	Section 1.2.5, figure 3, and Table 3, Item 15 of the SGDMP detail the AGSDP program. Groundwater has not been discharged from the Goomig agricultural development in this reporting period. Storm water flow occurs naturally each wet season, which commenced in October 2015.
11.9.2	Discharge rules and rates and contingency actions	Integration of Focus/Action/Limit responses and contingency actions into the OSWM was in development during current reporting period. Focus/Action/Limit responses and contingency actions provided to IRG for review. KAI is using the same framework with its simplified dilution calculation and risk assessment approach, as reported to the IRG in February 2016 and provided in the 2016 Goomig-Knox Surface Water report.
11.9.3	Monitoring locations and requirements including infrastructure and setup	Sampling locations agreed by IRG for baseline aquatic fauna and water quality monitoring in previous reporting period. The monitoring locations have been established. DW1 Gauging Station, Weaber Range (Border Creek) and Keep River (Legune Crossing) gauges feed data into OSWM and KAI's dilution calculation framework.
11.9.4	Design and location of dewatering infrastructure	Not yet required. Section 2.3, Table 3, Item 15 of the SGDMP requires an AGSDP to be developed and implemented, that addresses design and location of dewatering and discharge infrastructure. Included in farm design plans. This is expected to be actioned during operation prior to the commencement of stormwater and groundwater discharge from operational farms.
11.9.5	Written evidence of any Northern Territory Government permits that are required for discharge of groundwater	Not yet required. Section 2.3, Table 3, Item 15 of the SGDMP requires an AGSDP to be developed and implemented, that addresses written evidence of any Northern Territory Government permits that are required for discharge of groundwater. Groundwater discharge not yet required into the NT and Irrigation has not commenced. This is expected to be actioned during operation prior to the commencement of storm water and groundwater discharge from operational farms.
11.9.6	Management measures that ensure discharge of water will not impact on water quality in Border Creek and Keep River, including erosion protection measures	Completed during a previous reporting period. Section 2.3, Table 3, Item 15 of the SGDMP requires an AGSDP to be developed and implemented, that addresses management measures that ensure discharge of water will not impact on water quality in Border Creek and Keep River, including erosion protection measures.

Condition/ Reference	Requirement	Status
11.10.1	List of key analytes to be sampled established	Section 1.2.5 and Table 2 of the SGDMP includes a list of physio-chemical and biological indicators for storm water and groundwater discharge. See also Condition 11.6.3. KAI has provided list of possible farm chemicals to the IRG (June 2014) and updates these annually.
11.10.2	IRG consulted	The IRG approved the SGDMP in a letter to DoEE dated 9th February, 2012. Ongoing consultation has occurred with IRG meetings held June 2015, February 2016 and October 2016.
11.10.3	List updated annually based on monitoring results	KAI has provided list of possible farm chemicals to the IRG June 2014), January2015, February 2016 and October 2016.
11.11.1	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 .H	Not yet required. Discharge of groundwater to the Keep River is set out in section 1.2.4 *Groundwater Discharge* and Figure 3 *Decision flow chart for the management of storm water and surplus groundwater discharge,* of the SGDMP. Groundwater was not discharged during the reporting period as abstraction was not required.
11.11.2	Discharge must be in the K1 pool or downstream in the Keep River estuary	Not yet required. Discharge of groundwater to the Keep River is set out in section 1.2.4 *Groundwater Discharge* and Figure 3 *Decision flow chart for the management of storm water and surplus groundwater discharge* of the SGDMP. Groundwater was not discharged during the reporting period as abstraction was not required.
11.11.3	Discharge timings and rules developed with consideration of ebb tides	Keep River pools bathymetry studies undertaken June 2014 to inform water movement and dilution calculations. Section 2.4, Table 3 Item 16, of the SGDMP requires that discharge points for surplus groundwater are located where discharge will not cause erosion, with consideration of ebb tides, and in consultation with the IRG. Tidal interchanges built into OSWM.
11.11.4	IRG consulted	See condition 11.10.2 above. Ongoing consultation with IRG at meetings held June 2015, February 2016 and October 2016.
11.12	Contingency actions to dispose of excess groundwater should monitoring results indicate likely adverse impacts on listed threatened species	Table 4 Discharge monitoring regimes and corrective actions of the SGDMP sets out the proposed monitoring regime; activities to be performed throughout the life of the project; and corrective actions to be undertaken. Figure 3 *Decision flow chart for the management of storm water and surplus groundwater discharge,* of the SGDMP sets out some contingency actions.

Condition/ Reference	Requirement	Status
11.13.1	Operational Surface Water Model (OSWM)	OSWM in construction, utilising baseline research. IRG input via June and December 2014 meetings and involvement by Dr Ray Evans in ongoing design. KAI, with advice from the IRG, is utilising an actuals-based dilution calculation framework and risk assessment process to assess likely impacts of storm water flow into Border Creek. This approach was presented to and discussed with the IRG in February 2016.
11.13.2	Framework provided prior to commencement of irrigation	Framework for OSWM approved by IRG in previous reporting period (December 2011 meeting).
11.13.3	Full model, with updated monitoring results, provided within 12 months of the commencement of irrigation	Non-compliant. Notification was provided to DotE on 17 June 2016. A report was provided to DoEE on 5 October 2016 which provided details on the non-compliance and planned preventative action. KAI has advised that the OSWM is complex and difficult to use as part of daily farm operations. This has also been communicated to the Independent Review Group (IRG). Dilution calculations based on actual monitoring data were presented to IRG in February 2016, outlining 2015 monitoring results and seasonal conditions. Dilution calculations for 2016 are included in the 2016 Goomig-Knox Surface Water report.
11.13.4	OSWM updated on a seasonal basis	See 11.13.4 above. The 2016 Goomig-Knox Surface Water report provides a seasonal update.
11.14.1	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 11.G	Set out in section 2.4 of the SGDMP. Contingency measures (including flushing with fresh water) included in SGDMP. Contingency measures agreed by the IRG June 2015 – Focus Action Limit management response table.
11.14.2	Contingency measures must include ceasing of discharge of storm water and groundwater to the Border Creek and Keep River	Contingency measures are set out in Figure 3 of the SGDMP. Ceasing the discharge of storm water arising from rainfall, is not possible if the storm water arises from rainfall amounts resulting in storage capacity being exceeded.

Condition/ Reference	Requirement	Status
11.14.3	Includes implementation of a high intensity (at least daily) water quality sampling program	DW1 Gauging Station auto sampler has an ability to undertake this sampling regime but telecommunications failures in 2016 meant this did not occur.
11.14.4	Includes release of fresh irrigation water to flush the system	The Focus-Action-Limit response table agreed by the IRG (June 2015) includes flushing as a management response mechanism.
11.14.5	Includes changes to farm practices such as reducing or ceasing the use of fertilisers and chemicals	Completed during a previous reporting period. Figure 3 and Table 4 under corrective actions of the SGDMP detail changes to farm practices such as reducing or ceasing the use of fertilisers and chemicals, revising farm fertiliser practices and reviewing farm cropping strategies.
11.15	Protocols and timelines for review and reporting to the Department	Section 2.5 Performance Reporting of the SGDMP states that “both the Annual Environment Report (AER) and triennial Performance Review Report will be prepared by the Proponent. The reports will be provided to the relevant regulatory authorities and made publically available”. Section 3 Review and Revision of the SGDMP details the revision and review process of the SGDMP.
11.16	SGDMP implemented	SGDMP approved January 2013. Refer items above.

Condition/ Reference	Requirement	Status
EPBC Approval Condition 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: • 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: I. At least 20 high intensity regional bores, and II. At least 30 low intensity regional bores. III. The management plan must indicate the locations for the expanded bore network; • 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 lndependent Review Group and must include: 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; II. High intensity bores - Seasonal monitoring of EC, pH, groundwater levels, TDS, nutrients and pesticides; • The establishment of at least one on-farm bore per farm. The on-farm bore network must be installed prior to commencement of irrigation; • Monitoring of the on-farm bores established under Condition 12.C to collect baseline and ongoing groundwater data. Parameters for monitoring must be determined in consultation with the lndependent Review Group and must include seasonal monitoring of groundwater levels, EC and pH;	

Condition/ Reference	Requirement	Status
	• Updates of the groundwater model and operation of the groundwater management system with monitoring data derived from Conditions 12.8 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 worse case scenario indicates a breach in trigger levels, modelling must be updated every 2 years, otherwise every 4 years); • 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. • Establishment of groundwater quality trigger levels for chemicals and nutrients through the use of baseline groundwater quality monitoring in accordance with ANZECC guidelines (2000). ANZECC guidelines trigger values for a 'high conservation/ecological value system" must be adopted for the initial 3 year period. Site specific trigger levels may be determined following this period based on ANZECC guidelines protocols. • Establishment of groundwater management infrastructure, including a network of groundwater abstraction bores in the Development Area and Buffer Area and discharge infrastructure at the K1 pool or downstream in the Keep River estuary designed in consultation with the lndependent 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). • Establishment of a series of high intensity reference bores, at locations agreed to by the lndependent Review Group, to define a groundwater reference condition. The reference bores must be installed at least 18 months prior to commencement of irrigation. • 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	
	• 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. • 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 lndependent Review Group. This must include details of increased monitoring and implementation of a groundwater control program. • Protocols and timelines for review and reporting to the Department. • The approved Groundwater Management Plan must be implemented. • 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.	

Condition/ Reference	Requirement	Status
12.1.1	Groundwater Management Plan (GMP) prepared	Completed during a previous reporting period. Groundwater Management Plan was originally approved January 2013. A variation to the GMP was approved on 01/04/2015 to reflect the variation to condition 12G.
12.1.2	IRG consulted	Completed during a previous reporting period. The GMP was developed in consultation with the IRG, evidenced in a letter to DoEE dated 09/02/2012 approving the GMP. Refer IRG minutes 2013.
12.1.3	Submitted for approval by the Minister	The GMP was submitted for approval on 15/02/ 2012, evidenced in an email from DSD to DoEE. Administrative variation to GMP approved 17/03/2014. A variation to the GMP was approved on 01/04/2015 to reflect the variation to condition 12G.
12.1.4	Clearance of farm lots not undertaken until GMP approved	Completed during a previous reporting period. The GMP was approved on January 2013 prior to the clearing of farm lots, which commenced on or after 18/06/2013.
12.2.1	Expanded groundwater monitoring bore network must be established at least 18 months before the commencement of irrigation	Completed during a previous reporting period. Some on-farm bore locations likely to change due to farm design requirements.
12.2.2	At least 20 high intensity bores installed	Completed during a previous reporting period. See condition 12.2.1 above.
12.2.3	At least 30 low intensity bores installed	Completed during a previous reporting period. See condition 12.2.1 above.
12.2.4	Expanded bore network mapping provided in GMP	Completed during a previous reporting period. Regional bore locations are shown in Figure 5 of the GMP.
12.3.1	Baseline and ongoing groundwater data collected	Baseline groundwater monitoring undertaken early and late dry season in 2014. Baseline monitoring was completed in 2014 and ongoing monitoring commenced in 2015. The IRG agreed to the ongoing monitoring regime at its February 2016 meeting.
12.3.2	Baseline monitoring commenced at least 18 months prior to commencement of irrigation	See condition 12.3.1 above. Groundwater monitoring undertaken early and late dry season in 2014. This sub-condition has been met.
12.4.1	Sampling parameters determined in consultation with IRG	Completed during a previous reporting period. Section 2.3.4, Table 2, Item 2 of the GMP requires that sampling parameters are determined in consultation with the IRG. IRG was consulted and assisted in determining sampling parameters. Ongoing sampling parameters were agreed at the February 2016 IRG meeting, following advice from DAFWA following analysis of the baseline groundwater data.

Condition/ Reference	Requirement	Status
12.4.2	High intensity bores: daily groundwater levels and temperature monitoring	Ongoing. The baseline groundwater studies resulted in recommendations from DAFWA on an ongoing groundwater monitoring regime. The EPBC approval included the required baseline monitoring regime but did not stipulate post-baseline requirements. On approval from the IRG (February 2016), the Proponent, via KAI, has adopted the groundwater monitoring regime which was recommended by DAFWA following the baseline studies. This monitoring program includes a seasonal sampling regime (April/May and October/November monitoring rounds).
12.4.3	High intensity bores: seasonal monitoring of EC, pH, TDS, major cations and anions, nutrients and pesticides	Ongoing. See 12.4.2
12.4.4	Low intensity bores: seasonal monitoring of EC, pH, groundwater levels, TDS, nutrients and pesticides	Ongoing. See 12.4.2
12.5.1	Establishment of at least one on-farm bore per farm	Completed during a previous reporting period. Some on-farm bore locations likely to change due to farm design requirements.
12.5.2	On-farm bores installed prior to commencement of irrigation	Completed during a previous reporting period. Some on-farm bore locations likely to change due to farm design requirements.
12.6.1	Baseline and groundwater data monitoring	Completed during a previous reporting period - DAFWA. Ongoing monitoring - KAI is undertaking the bore monitoring following training by DAFWA.
12.6.2	IRG consulted	Complete. Section 2.3.4, Table 2, Item 5 of the GMP requires that sampling parameters are determined in consultation with the IRG, including groundwater levels, EC and pH. Refer IRG minutes for ongoing consultation and groundwater monitoring updates.

Condition/ Reference	Requirement	Status
12.6.3	Seasonal monitoring of groundwater levels, EC and pH	Ongoing - April 2015 and October 2015 monitoring completed. Seasonal monitoring as per EPBC 12.3.1 undertaken in 2014. KAI is undertaking the bore monitoring following training by DAFWA. On approval from the IRG (February 2016), the Proponent, via KAI, has adopted the groundwater monitoring regime which was recommended by DAFWA following the baseline studies.
12.7.1	Groundwater model and operation of the groundwater management system updated with monitoring data	Groundwater model updated by CyMod (2014) includes the proposed Knox Creek Plain development in conjunction with Weaber Plain.
12.7.2	Modelling updated prior to commencement of irrigation	Groundwater model updated by CyMod (2014) includes the proposed Knox Creek Plain development in conjunction with Weaber Plain.
12.7.3	Numerical groundwater modelling must be updated in consultation with the IRG	Complete. CyMod report provided to IRG June 2014.
12.7.4	Subsequent updates conducted every 2-4 years depending on monitoring	Not yet required. See condition 12.7.1 above.
12.7.5	If a breach in trigger levels is indicated, modelling must be updated every 2 years, otherwise every 4 years	Section 2.3.4, Table 2, Item 12 of the GMP requires that If a breach in trigger levels is indicated, modelling must be updated every 2 years. No breach in trigger levels occurred in the reporting period.
12.8.1	If high or low intensity bores exceed groundwater quality or groundwater level triggers, seasonal sampling must include groundwater levels, EC, TDS, major cations and anions, nutrients, pesticides and pH	Section 2.4, Table 4, Item 2 of the GMP requires that Table 2, Item 7 of the GMP be implemented if levels of chemicals and nutrients exceed scenarios that show: • an increasing trend in the concentration of any chemical (at statistical confidence levels) • an exceedance of the site-specific triggers for a particular chemical over two consecutive years. Section 2.3.4, Figure 4 of the GMP provides a decision flow chart for the management of groundwater rise in the development and buffer areas, and changes to groundwater base flow to k4 pool. The list of analytes for groundwater monitoring is defined based on relevant site-specific triggers and is subject to IRG review.

Condition/ Reference	Requirement	Status
12.8.2	Seasonal monitoring of the bores for five years following exceedance of trigger levels	Section 2.3.4, Table 2, Item 7 of the GMP requires that monitoring of the “on-farm” bores is undertaken annually for five years at the commencement of the dry season if trigger levels are exceeded.
12.9.1	Trigger levels for chemicals and nutrients established in accordance with ANZECC guidelines	Trigger levels for aquatic health established under AFMP and SGDMP.
12.9.2	ANZECC trigger values for a 'high conservation/ecological value system" adopted for initial 3 year period	Section 2.3.4, Table 2, Item 14 of the GMP requires that ANZECC trigger values for a 'high conservation/ecological value system" are adopted for initial 3 year period prior to irrigation, after which site specific triggers will be adopted. Completed in consultation with IRG. Condition 12G varied in 2015 to place groundwater monitoring within the context of the downstream (Keep River) impact on listed MNES.
12.9.3	Site specific trigger levels determined after 3 years based on ANZECC guidelines protocols	Section 2.3.4, Table 2, Item 14 of the GMP requires that site specific trigger levels be determined after 3 years based on ANZECC and ARMCANZ guidelines. Condition 12G varied in 2015 to place groundwater monitoring within the context of the downstream (Keep River) impact on listed MNES.
12.10.1	Groundwater management infrastructure established	Not yet required. Section 2.3.4, Table 2, Items 1 to 12 of the GMP outline the groundwater management infrastructure which is to be established.
12.10.2	A network of groundwater abstraction bores established in the Buffer Area	Not yet required. Section 2.3.4, Table 2, Item 15 of the GMP requires that a network of groundwater abstraction bores and discharge infrastructure is stablished in consultation with the IRG. The location of the groundwater abstraction bores and discharge infrastructure is outlined in Figure 5 of the GMP, and includes bores in the Buffer area and Development area.
12.10.3	A network of groundwater abstraction bores established in the Development Area	Not yet required. See criteria 12.10.2 above.
12.10.4	Discharge infrastructure established at the K1 pool or downstream in the Keep River Estuary	Not yet required. Section 1.2, Table 1, Item H describes that the storm water and groundwater discharge infrastructure is addressed in the SGDMP and is therefore not discussed in the GMP.

Condition/ Reference	Requirement	Status
12.10.5	Design of groundwater abstraction bore network and discharge infrastructure designed in consultation with the IRG	Not yet required. Section 2.3.4, Table 2, Item 15 of the GMP requires that a network of groundwater abstraction bores and discharge infrastructure is established in consultation with the IRG.
12.10.6	Forecasting of trigger level exceedance must be projected 10 years into the future	Refer to EPBC 12.9.3. Note Condition 12G has been varied to clarify the issue regarding triggers being associated with aquatic fauna health and not groundwater itself. This was undertaken following the June 2014 and December 2014 IRG meetings.
12.10.7	Abstraction wells and groundwater discharge infrastructure installed prior to any expected breach of trigger levels based on forecasting (incorporating the accuracy of the model into installation timings).	Section 2.3, Table 3, Item 15 of the SGDMP outlines requirements for developing and implementing an adaptive groundwater and storm water discharge program, prior to the commencement of storm water and groundwater discharge from operational farms. Section 2.3.4, Table 2, Item 12 of the GMP outlines that the purpose of groundwater abstraction is to assist in determining an optimal dewatering strategy.
12.10.8	Abstraction wells and groundwater discharge infrastructure operational prior to any expected breach of trigger levels based on forecasting (incorporating the accuracy of the model into installation timings).	See condition 12.10.7 above.
12.11.1	High intensity reference bores established to define a reference condition	Complete. See condition 12.2 above. Groundwater bores have been installed by DAFWA during a previous reporting period. Refer IRG minutes re: locations of bores 2013.
12.11.2	Bores established at least 18 months prior to commencement of irrigation	Complete. See condition 12.2 above. Groundwater bores have been installed by DAFWA during a previous reporting period. Refer IRG minutes re: locations of bores 2013.
12.11.3	Locations of high intensity reference bores agreed in consultation with the IRG	Completed during a previous reporting period. The GMP was developed in consultation with the IRG, evidenced in a letter to DoEE dated 09/02/ 2012 approving the GMP. Refer IRG minutes re: locations of bores 2013.
12.12	Sampling includes daily groundwater levels and temperature and seasonal EC and pH levels	Section 2.3.4, Table 2, Item 3 of the GMP requires sampling, including daily groundwater levels and temperature and seasonal EC and pH levels. Monitoring program/report. Loggers in situ

Condition/ Reference	Requirement	Status
12.13.1	Contingency measures detailed should trigger levels be exceeded	Complete. Section 2.4, Table 4 of the GMP provides contingency measures should trigger levels be exceed, or are likely to be exceeded. Section 2.3.4, Figure 4 of the GMP provides a decision flow chart for the management of groundwater rise in the development and buffer areas, and changes to groundwater base flow to K4 pool.
12.13.2	Includes details of increased monitoring	Section 2.3.4, Figure 4 of the GMP includes details of increased monitoring if trigger levels are exceed, or are likely to be exceeded. No increased monitoring required in the reporting period.
12.13.3	Includes implementation of a groundwater control program	Section 2.3.4, Figure 4 of the GMP provides for the development and implementation of a groundwater control program. A groundwater control program was not required to be developed or implemented in the reporting period due to no exceedances of trigger levels.
12.13.4	Includes changes to farm practices such as reducing or ceasing the use of fertilisers and chemicals	Section 2.4, Table 4, Items 1 and 2 of the GMP provide for implementation of a groundwater control program (as per Figure 4 of the GMP). The Groundwater control program could include changes to farming, cropping, and/or irrigation practices, and may also include remedial action such as reducing or ceasing the use of fertilizers and/or chemicals. No change of farm practices were required in the reporting period.
12.14.1	Contingency measures should trend analysis levels exceed trend at reference bores	Section 2.4, Table 4, Item 1 of the GMP provides for contingency measures to be applied should trigger levels be exceeded, or are likely to be exceeded. Contingency measures were not required to be implemented in the reporting period.

Condition/ Reference	Requirement	Status
12.14.2	Exceedance rate determined in consultation with the IRG	Section 2.3.4, Table 2, Items 12 and 15 of the GMP require that the groundwater model, network of groundwater abstraction bores and discharge infrastructure are all developed in consultation with the IRG.
12.14.3	Include details of increased monitoring and implementation of a groundwater control program	See conditions 12.13.2 and 12.13.3 above.
12.15	Reporting and review protocols and timelines	Timelines for review and covered in reporting to DoEE are Sections 2.5 and 2.6 of the GMP.
12.16	GMP implemented	Expansion of the existing groundwater monitoring bore network for the collection of baseline and ongoing groundwater data has been undertaken. Over 50 bores have been established can be sampled at any frequency (i.e can either be a high or low intensity bore).

Condition/ Reference	Requirement	Status
EPBC Approval Condition 13	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: • The progressive removal or reuse of infrastructure where operations cease; • Establishment of management practices and safeguards to minimise environmental disturbance; • Measures to ensure Matters of National Environmental Significance are not impacted by progressive decommissioning, or final decommissioning of infrastructure; • Rehabilitation actions for the infrastructure sites following decommissioning including for: I. optimising habitat and habitat connectivity for Matters of National Environmental Significance; II. enhancing pre-construction environmental quality; and III. ongoing management during rehabilitation. • The approved Decommissioning Plan must be implemented. • Note: To avoid doubt, if a condition of another approval held by the proponent requires a Decommissioning Plan, the proponent may simultaneously meet the relevant requirements of both conditions by submitting a single plan.	
13.1.1	Decommissioning Plan (DP) prepared	A preliminary decommissioning plan was prepared in 2011. The Preliminary Decommissioning Plan was submitted to DEE on 3 February.
13.1.2	WA DEC consulted	Not yet required.
13.1.3	Preliminary DP submitted for approval by the Minister not more than 5 years after commencement of the action	The Preliminary Decommissioning Plan was submitted to DEE on 3 February2017.
13.1.4	Final DP submitted at least 6 months prior to the anticipated date of decommissioning	Not yet required.
13.2	Infrastructure is progressively removed or reused	Not yet required.
13.3	Management practices and safeguards to minimise environmental disturbance established	Not yet required.

Condition/ Reference	Requirement	Status
13.4	Includes measures to ensure MNES not impacted by progressive or final decommissioning	Not yet required.
13.5.1	Rehabilitation actions for infrastructure sites following decommissioning includes optimising habitat and habitat connectivity for MNES	Not yet required.
13.5.2	Rehabilitation of infrastructure sites includes enhancing pre-construction environmental quality	Not yet required.
13.5.3	Rehabilitation of infrastructure sites includes ongoing management during rehabilitation	Not yet required.
13.6	DP implemented	Not yet required.

Condition/ Reference	Requirement	Status
EPBC Approval Condition 14	In order to offset the potential impacts on listed threatened species, including the endangered Gouldian Finch (Erythrura gouldiae), the endangered Northern Quoll (Dasyurus hallucatus), the vulnerable Red Goshawk (Erythrotriorchis radiates), the vulnerable Crested Shrike-tit (Falcunculus frontatus whiter), the critically endangered Speartooth Shark (Glyphis glyphis), the endangered Northern River Shark (Glyphis garricki), the vulnerable Freshwater Sawfish (Pristis Microdon) and the vulnerable Dwarf Sawfish (Pristis clavata), 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: 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: I. Mapping of the native vegetation habitat suitable for listed threatened species; II. Details of the area and characteristics of suitable habitat for listed threatened species; 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; 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 be protected regardless of the action); 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; VI. Provision of ongoing management of the offset site, including details of funding mechanisms. Details of alternative direct or indirect offsets if the proposed offsets do not satisfy the requirements listed in Condition 14.A; 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 (Glyphis glyphis), the endangered Northern River Shark (Glyphis garricki), the vulnerable Freshwater Sawfish (Pristis Microdon) and the vulnerable Dwarf Sawfish (Pristis clavata). 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. The approved Offset Management Plan must be implemented.	
14.1.1	Offset Management Plan (OMP) prepared	Completed during a previous reporting period. The Offset Management Plan (OMP) has been prepared by Strategen and submitted to DoEE for approval on the 13th September, 2012. The OMP was approved on 1 February 2013.

Condition/ Reference	Requirement	Status
14.1.2	WA DEC consulted	Completed during a previous reporting period. Consultation with DEC was requested on the 24th August 2012 and feedback was provided by DEC on the 04/09/ 2012.
14.1.3	OMP submitted for approval by the Minister no later than 13 September 2012	Completed during a previous reporting period. The OMP was submitted to DoEE by Strategen on the 13th September, 2012 and confirmation of the receipt of the OMP was sent by DoEE on the same day.
14.2.1	Details of the direct offsets proposed in the draft EIS and how these will deliver long-term conservation benefits	Completed during a previous reporting period. This requirement is covered by the following items 14.2.2 to 14.2.6
14.2.2	Mapping of the native vegetation habitat suitable for listed threatened species	Completed during a previous reporting period. Mapping of suitable habitat for listed threatened species were provided in the OMP. Section 4.3.2 showed suitable habitat for the Gouldian Finch (Figure 4), Red Goshawk (Figure 5), Crested Shrike-tit (Figure 6) and the Northern Quoll (Figure 7).
14.2.3	Details of the area and characteristics of suitable habitat for listed threatened species	Completed during a previous reporting period. Section 4 of the OMP outlines characteristics of the threatened terrestrial fauna and related habitat suitability. Table 2 of Section 4.1 outlines species characteristics, while Table 3 of Section 4.2 outlines habitat suitability.
14.2.4	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	Completed during a previous reporting period. Table 4, Section 4.3.1 of the OMP outlines the extent of suitable habitat affected within the development area. Tables 5, 6, 7 and 8 of Section 4.3.2 of the OMP identify areas of suitable, possible and unsuitable habitat within the conservation areas for the Gouldian Finch, Red Goshawk, Crested Shrike-tit and the Northern Quoll respectively.
14.2.5	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 DoEE that conservation covenants have been entered into	Section 1.2.1 of the OMP outlines the 6 conservation reserves established under the Conservation and Land Management Act 1984.

Condition/ Reference	Requirement	Status
14.2.6	Provision of ongoing management of the offset site, including details of funding mechanisms	Completed during a previous reporting period. Section 1.2.1 of the OMP identifies that offset areas will be managed for conservation purposes.
14.3	Details of alternative offsets if the proposed offsets do not satisfy the requirements listed in Condition 14.A	Complete. Table 1, Section 2.2.2 of the OMP states that this requirement is met in Section 1 of the OMP, this Section details the landscape restoration of the buffer area. Alternative offsets are not mentioned in the OMP as they were not required
14.4.1	Funding of research activities agreed by DoEE, to an amount of no less than $150,000 per year for 10 years	Paragraph 2, Section 6 of the OMP outlines provisions for funding activities "to the value of $150,000 per year for 10 years" CSIRO agreement established. First payment was made by DRD to CSIRO on 18/09/ 2013. Payments continue via DRD.
14.4.2	Proposed research activities developed in consultation with the Sawfish and Glyphis Recovery Team	Completed during a previous reporting period. Section 6 of the OMP identifies that this "condition requires proposed research activities to be developed in consultation with the Sawfish and Glyphis Recovery Team". Section 6 of the OMP highlights that "Liaison will occur with the Glyphis and Sawfish Recovery Team to ensure research undertaken by the Proponent is communicated to and integrated with the national recovery efforts".
14.4.3	Payments made to a trust fund agreed to by DoEE	Paragraph 3, Section 6 of the OMP identifies that Payments for the research must be made into a trust fund agreed to by DoEE. Payments continue via DRD.
14.4.4	Research activities approved by the department	Completed during a previous reporting period. Research activities were approved by DoEE on 20/09/2012.
14.4.5	First yearly payment provided by 13 March 2013	Completed during a previous reporting period.
14.5	OMP implemented	Ongoing as per items above.

Condition/ Reference	Requirement	Status
EPBC Approval Condition 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.	
15.1.1	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 revised management plan submitted to the department	No variations made during the reporting period.
15.1.2	Varied activity not commenced until Minister has approved the varied management plan in writing	No variations made during the reporting period.
15.1.3	Varied management plan implemented	No variations made during the reporting period.
EPBC Approval Condition 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.	
16.1.1	Management plans revised as specified upon Minister's request	No requests for revision have been made by the Minister in the reporting period.
16.1.2	Revised management plan submitted for Minister's written approval	No requests for revision have been made by the Minister in the reporting period.

Condition/ Reference	Requirement	Status
16.1.3	Revised management plan implemented	No requests for revision have been made by the Minister in the reporting period.
EPBC Approval Condition 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.	
17.1.1	Approved management plans published on website of person taking the action within 1 month of being approved	All management plans uploaded to www.dsd.wa.gov.au on within 1 month of being approved.
17.1.2	Baseline information and monitoring results published on website annually, beginning 12 months after the commencement of the action	All baseline information and monitoring results uploaded to www.dsd.wa.gov.au. The most recent monitoring results were updated on 16/05/2017.
EPBC Approval Condition 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 13) have been registered on the title.	
18.1	Evidence provided to DoEE that relevant conditions registered on title prior to sale of any land	Wording agreed by DoEE November 2012. There has not been any sale of land at this stage.
EPBC Approval Condition 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.	
19.1.1	Independent compliance audit conducted upon direction of the Minister	N/A. No audits requested in this reporting period.
19.1.2	Compliance report submitted to Minister	N/A. No audits requested in this reporting period.

Condition/ Reference	Requirement	Status
19.1.4	Independent auditor approved by Minister prior to the commencement of the audit	N/A. No audits requested in this reporting period.
19.1.5	Audit criteria agreed to by Minister	N/A. No audits requested in this reporting period.
19.1.6	Audit report addresses audit criteria to the satisfaction of the Minister	N/A. No audits requested in this reporting period.
EPBC Approval Condition 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.	
20.1	Action not substantially commenced without written agreement of Minister if action not substantially commenced by 13 September 2016	Completed prior to this reporting period. Confirmation that the commencement date of action was 30/04/2012 was provided to DoEE by DSD in a letter dated 07/05/2012, which also contained the Schedule of Works required by Approval condition #4.