

Sweetwater Agricultural Development Stage 1

Application Number: **02614**

Commencement Date:
02/10/2024

Status: **Locked**

1. About the project

1.1 Project details

1.1.1 Project title *

Sweetwater Agricultural Development Stage 1

1.1.2 Project industry type *

Agriculture and Forestry

1.1.3 Project industry sub-type

Agriculture

1.1.4 Estimated start date *

01/04/2026

1.1.4 Estimated end date *

31/03/2125

1.2 Proposed Action details

1.2.1 Provide an overview of the proposed action, including all proposed activities. *

The Sweetwater Agricultural Development Stage 1 proposal involves the clearing and development of a proposed minimum of 3,269 hectares of land for cropping and associated farm infrastructure, on NT Portion 1584 and a small component of 3221 of Spirit Hills Pastoral Lease in the Keep River catchment of the Northern Territory.

An overall Stage 1 development envelope of 4,525 hectares encompasses the farm and infrastructure components, buffer zones, and allows for on-site farm layout adaptability within the parameters of any approvals received. The attached referral document [Attachment A] provides further detail.

Included in the development envelope are -

Clearing and development of land for agricultural cropping, including on-farm water distribution and drainage networks and unsealed farm vehicle access tracks: 3,231 hectares.

Clearing and development of land for infrastructure, including machinery sheds, chemical storage facilities, silos and other commodity storage infrastructure, and farm workforce accommodation: 38 hectares.

Levee banks: 43 kilometres; 126 hectares.

River crossings (using existing pastoral station crossings/tracks/fencelines): 17.09 hectares.

Cultural heritage exclusion zone (Spirit Hills area): 314 hectares

Retained vegetation in areas not to be developed for farms or infrastructure: 1,255 hectares (ie the remainder of the land within the Stage 1 envelope).

Note that there is some overlap of these features. For example, the 21 hectares of tracks for river crossings partially overlap the development envelope, as do the levee banks.

The Stage 1 development will commence upon receipt of all required approvals, with the intention that dryland, or non-irrigated farming can begin in or before 2028. Selected crops including corn, cotton, sorghum, chickpeas, mung beans and other grain legumes and cereals will be grown in various rotations in this permanent agricultural development.

Future extensions (which are not the subject of this referral) include an additional 24,685 hectares of development envelopes across the proposed Sweetwater Stages 2 and 3. The entire 24,685 hectares will not be developed, but provide the boundaries for the assessment of suitable farming options within that overall area.

It is anticipated that irrigation options will be investigated and developed for Stages 1, 2 and 3 at an appropriate time based on the finalisation of an already proposed inter-governmental agreement and investigations on water supply alternatives currently being undertaken by the NT Government.

1.2.2 Is the project action part of a staged development or related to other actions or proposals in the region?

Yes

1.2.3 Is the proposed action the first stage of a staged development (or a larger project)?

Yes

1.2.5 Provide information about the staged development (or relevant larger project).

Sweetwater Stages 2 and 3 envelopes are illustrated in Figure 6 of Attachment A.

Total development envelopes of 24,685 hectares are proposed, within which SCA will seek to optimise farm lots for irrigated and dryland or non-irrigated agriculture. The potential Keep River crossovers from Stage 1 to Stage 3, which will be used for access and water transfer purposes under future irrigated farming, are included in this Stage 1 proposal, as noted earlier.

This includes existing tracks and river crossing which have historically been used in station management and for Indigenous cultural access to and across the Keep River.

As with the Stage 1 area, Sweetwater Stages 2 and 3 are proposed for agriculture. Annual crops to be grown may include but are not limited to corn, cotton, sorghum, chickpeas, mung beans and other grain legumes and cereals suited to the tropical northern environment.

1.2.6 What Commonwealth or state legislation, planning frameworks or policy documents are relevant to the proposed action, and how are they relevant? *

Section 3 of Attachment A addresses the core statutory responsibilities and approval, licence or permit requirements for the proposed Sweetwater Stage 1 development.

The project is jointly referred to DCCEEW under for assessment under the *EPBC Act 1999* (Cth), while simultaneously being referred to the Northern Territory Environment Protection Authority (NT EPA) for assessment under the *Environment Protection Act 2019* (NT). It is anticipated that assessment of the proposal will be undertaken under the Bilateral Agreement between the Commonwealth and the NT Government in relation to the EPBC Act.

Environment Protection Act 2019 (NT) and Environment Protection Regulations 2020

The purpose of the *Environment Protection Act 2019* (NT) (EP Act) is “to enable and promote sustainable development in the NT that is ecologically sustainable”. A proponent must refer a proposal to the NT EPA if it meets a referral trigger or has the potential to have a significant impact on the environment. The definition of a significant impact under s11 of the EP Act is an impact of major consequence, having regard to the context and intensity of the impact and the sensitivity, value and quality of the environment impacted on and the duration, magnitude and geographic extent of the impact.

This proposal is referred to the NT EPA in relation to the context, magnitude and geographic extent of the impact, for standard assessment under section 48 of the EP Act.

The *Environment Protection Regulations 2020* (NT) provide process guidance for compliance with the EP Act. Section 43 of the EP Regulations allows for a proponent-initiated Environmental Impact Statement (EIS) referral. This document has been prepared to support a referral under s43. The attached draft Terms of Reference (ToR) and Statement of Reasons (SoR) have been prepared to meet the requirements of s43. Refer to Attachments C and D respectively for the draft ToR and the SoR.

Application of the principles of environment protection and management

Section 26 of the EP Act requires that actions be designed to avoid adverse impacts on the environment; to identify management options to mitigate adverse impacts; and if this cannot be done adequately, to provide for environmental offsets for residual impacts that cannot be mitigated or avoided.

The Sweetwater Stage 1 proposal is informed by decades of environmental assessments on or near to the Spirit Hills pastoral lease location of the development. Avoidance of higher environmental risk areas including the Keep River, and of cultural heritage sites, has strongly informed the proposed farm layout and infrastructure plans.

Sections 17 to 24 of the *EP Act 2019* (NT) require that the principles of ecologically sustainable development (ESD) be considered, including evidence-based decision making and the application of the precautionary principle.

The principles of ESD and the mitigation hierarchy have been applied by the proponent in the development of the Sweetwater Stage 1 project.

The general duty of proponents under s43 of the EP Act specifies community consultation, Aboriginal engagement and cultural values assessments and other related matters which must be incorporated into an EIA and addressed in an EIS.

Environment Protection and Biodiversity Conservation Act 1999 (Cwth)

The EPBC Act 1999 protects nationally significant animals, plants, habitats and places. This relates largely to matters where Australia has an international obligation, including in relation to migratory birds and the habitats which support them.

Section 12 of Attachment A specifically addresses the Matters of National Environmental Significance (MNES) listed under the EPBC Act, where they are not otherwise addressed in the earlier sections of the document.

Planning Act 1999 (NT)

The *Planning Act 1999* (NT) (Planning Act) governs land use and development in the Territory.

The Planning Act provides the framework that ensures pastoral land development in the NT aligns with sustainable land use, environmental protections, and regional planning objectives. Because Spirit Hills is currently a pastoral lease, land use control and zoning, development permits, community and stakeholder consultation, and compliance with regional land use plans, which are all covered under this Act, must be addressed. Other matters including pastoral clearing permits and NPUPs are also covered under this Act.

Pastoral Land Act 1992 (NT)

The *Pastoral Land Act 1992* (NT) provides the NTG's legal framework for the use and management of pastoral land, focusing on the sustainable development and conservation of pastoral resources. The Act relates to the Spirit Hills pastoral lease as the location on which the Sweetwater Agriculture Development is proposed.

Pursuant to NTG guidelines, SCA has initiated the Pastoral Land Clearing (PLC) and Non-Pastoral Use Permit (NPUP) application processes for Stage 1 of the Sweetwater Development Project under this Act. The significant impacts identified in relation to the proposal would likely trigger a referral to the NT EPA of Sweetwater Stage 1 if SCA did not self-refer.

Per Figure 7 of Attachment A, a PLC permit under the *Pastoral Land Act 1992* will be required once EPA approval is obtained.

NT Planning Scheme Land Clearing Guidelines

The *NT Planning Scheme Land Clearing Guidelines* are recognised under the *Planning Act 1999* (NT) and the *Pastoral Land Act 1992* (NT) and also provide guidance for proposals assessed under the EP Act. The guidelines provide advice on the interaction of the EP Act, the Planning Act and the Pastoral Land Act in relation to development applications. The guidelines focus on minimising the impacts of environmental degradation arising from the clearing of native vegetation, and provide guidance for other developments assessed under the EP Act.

Northern Territory Aboriginal Sacred Sites Act 1989 (NT)

Under the *Northern Territory Aboriginal Sacred Sites Act 1989*, all sacred sites in the NT are protected from unauthorised entry or damage. SCA has obtained and assessed multiple certificates and survey work with findings recorded on various Aboriginal Areas Protection Authority (AAPA) certificates for the proposed area. The details contained within the certificates have been developed from numerous surveys and inspections undertaken over the past three decades. SCA has been informed that these historical certificates are well informed, as they reflect extensive input from experienced elders and custodians—many of whom were born on, lived on, or worked in close proximity to the project area. Accordingly, these surveys are likely to offer a higher degree of cultural accuracy and credibility than contemporary inspections. SCA will continue to liaise with Traditional Owners, and AAPA where applicable, in relation to ongoing heritage site management and protection.

Water Act 1992 (NT)

The *Water Act 1992* (NT) governs investigations, allocation, use, control, protection, management and administration of water resources in the Territory.

SCA will secure the appropriate and required licences for overland water storage and flood protection works required for the Sweetwater Stage 1 development. In doing so, the proponent will comply with the requirements of the NTG's *Surface water take – wet season flow policy* (NTG, 2023) and other guidance provided by the NTG.

Rights in Water and Irrigation Act 1914 (WA)

A licence to access water under the Western Australian RiWI Act will be required should water from the Ord system be required. This will be negotiated with the WA Department of Water and Environmental Regulation at an appropriate time.

As noted earlier, it is estimated that the total water volume which could potentially be supplied from the Ord system is a nominal 160GL per year across all stages of the Sweetwater development. Consequently, there should be adequate water available for irrigation if conversion from dryland to external irrigation supply occurs, subject to future licensing and supply discussions with relevant WA authorities.

Greenhouse Gas Emissions

SCA will comply with its obligations under the Commonwealth *National Greenhouse and Energy Reporting Act 2007*.

Other statutory considerations

Other statutory considerations include the *Heritage Act 2011* (NT), and the *Territory Parks and Wildlife Conservation Act 1976* (NT) and its associated by-laws (1984) and regulations (2001). Obligations under the *Bushfires Management Act 2016*, the *Weeds Management Act 2001* and the *Plant Health Act 2008*, *Heritage Act 2011*, and any other statutory matters, will also be addressed in management planning for the Sweetwater development. This includes Commonwealth legislative requirements including those governed by the *Native Title Act 1993* (Cth). The proponent is aware of its obligations and responsibilities to comply with NT and Australian Government laws in all aspects of the development process.

1.2.7 Describe any public consultation that has been, is being or will be undertaken regarding the project area, including with Indigenous stakeholders. Attach any completed consultation documentations, if relevant. *

Extensive public consultation and stakeholder engagement for this project has been undertaken (by others) over decades of assessments for extending the cropping areas of the East Kimberley (WA) into the Northern Territory. Much of this engagement has been undertaken by agencies of the Northern Territory and Western Australian Governments, and more recently through the Northern Territory Land Corporation. AAM Investment Group, as the parent company to Southern Cross Agri Pty Ltd (the proponent), secured the right to develop the project area following a public tender process in 2021. Since this time, AAM has continued to work with community, industry and government stakeholders to develop the proposal concept.

A specific focus is applied to indigenous stakeholders, and in particular Traditional Owners. Section 9.2 of Attachment A provides insight into related cultural heritage matters which are informing and guiding the Sweetwater Stage 1 development proposal.

First Nations engagement activities to date have included the following:

Yawoorroong Miriuwung Gajerrong Yirrgeb Noong Dawang Aboriginal Corporation (MG Corporation)

AAM has maintained regular engagement with the Executive Chair and Directors of MG Corporation in relation to the SCA Sweetwater Development proposal and associated planning pathways, including formal presentations to the Board on 10 September 2024 and 15 May 2025. MG Corporation represents the interests of native title holders and has confirmed its willingness to act as a facilitator - supporting engagement and consultation with representatives of native title estate groups. Additionally, MG Corporation has communicated to AAM that they are willing to play an active role in any discussions relating to the Northern Land Council. AAM is committed to meaningful collaboration with MG Corporation, Northern Land Council and the traditional owners relevant to the project.

Djarrany Djarrany Aboriginal Corporation

AAM has regular discussions with the representatives of the Djarrany Djarrany group. This has been a combination of formal and informal meetings on a range of matters including the developments on Legune, Sacred Site identification, tourism ventures on Legune and in relation to the Indigenous Land Use Agreement (ILUA) on Legune between Sea Farms Group (SFG) and the Djarrany Djarrany group, to which AAM is a party to as the Landowner.

The majority of the meetings have been held in Kununurra either directly with MG corporation or in the case of the Djarrany Djarrany with the presence of various Northern Land Council (NLC) representatives.

Matters raised during the consultations have included -

General interaction on location

Fishing rights

Managing tourists

The identification and protection of Sacred Sites

Tourism ventures

Development proposals on Legune and Spirit Hills inclusive of Sweetwater

As an outcome of the discussions, a number of changes have been made to the proposal planning, including in relation to heritage protection and Keep River access, and incorporating potential access to AAM's adjacent Legune Station for a tourism venture.

ILUA negotiations and Native Title responsibilities, as well as heritage obligations, are integrated and are addressed holistically in the discussions.

The EPBC *Interim Engaging with First Nations People and Communities on Assessments and Approvals Under the Environment Protection and Biodiversity Conservation Act 1999* guidance (DCCEEW, 2023a) is informing consultation activities.

Consultation and stakeholder engagement findings will be documented as part of the Environmental Impact Statement (EIS) to be prepared for the NT EPA assessment of this proposal.

1.3.1 Identity: Referring party

Privacy Notice:

Personal information means information or an opinion about an identified individual, or an individual who is reasonably identifiable.

By completing and submitting this form, you consent to the collection of all personal information contained in this form. If you are providing the personal information of other individuals in this form, please ensure you have their consent before doing so.

The Department of Climate Change, Energy, the Environment and Water (the department) collects your personal information (as defined by the Privacy Act 1988) through this platform for the purposes of enabling the department to consider your submission and contact you in relation to your submission. If you fail to provide some or all of the personal information requested on this platform (name and email address), the department will be unable to contact you to seek further information (if required) and subsequently may impact the consideration given to your submission.

Personal information may be disclosed to other Australian government agencies, persons or organisations where necessary for the above purposes, provided the disclosure is consistent with relevant laws, in particular the Privacy Act 1988 (Privacy Act). Your personal information will be used and stored in accordance with the Australian Privacy Principles.

See our Privacy Policy to learn more about accessing or correcting personal information or making a complaint. Alternatively, email us at privacy@awe.gov.au.

Confirm that you have read and understand this Privacy Notice *

1.3.1.1 Is Referring party an organisation or business? *

Yes

Referring party organisation details

ABN/ACN 67605335368
Organisation name SOUTHERN CROSS AGRI PTY LTD
Organisation address 4521 QLD

Referring party details

Name Andrew McCarron
Job title Grants Research and Development Manager
Phone 0407911948
Email andrew.mccarron@aamig.com.au
Address GPO Box 352, Brisbane QLD 4001

1.3.2 Identity: Person proposing to take the action

1.3.2.1 Are the Person proposing to take the action details the same as the Referring party details? *

No

1.3.2.2 Is Person proposing to take the action an organisation or business? *

Yes

Person proposing to take the action organisation details

ABN/ACN 67605335368
Organisation name SOUTHERN CROSS AGRI PTY LTD
Organisation address 4521 QLD

Person proposing to take the action details

Name Garry Edwards
Job title Chief Executive Officer
Phone 07 3153 8830
Email compliance@aamig.com.au
Address GPO Box 352 Brisbane Qld 4001

1.3.2.14 Are you proposing the action as part of a Joint Venture? *

No

1.3.2.15 Are you proposing the action as part of a Trust? *

No

1.3.2.17 Describe the Person proposing the action's history of responsible environmental management including details of any proceedings under a Commonwealth, State or Territory law for the protection of the environment or the conservation and sustainable use of natural resources against the Person proposing to take the action. *

There are no proceedings against AAM Investment Group or Southern Cross Agri Pty Ltd or the Directors of both entities, in relation to environment compliance, conservation or the sustainable use of natural resources.

1.3.2.18 If the person proposing to take the action is a corporation, provide details of the corporation's environmental policy and planning framework

Southern Cross Agri Pty Ltd (SCA) is invested in sustainable development and responsible environmental stewardship in accordance with development guidelines, best practices, legislation, and standards that emphasise the consideration of nature in sustainable development pathways. SCA strive to integrate environmental management into all business processes, from acquisition to operation and management.

To achieve this SCA as a business:

- Recognise environmental management is a business priority that should be integrated into business processes from acquisition to operation and management
- Conduct activities in alignment with the principles of environmental management, ensuring responsible stewardship of the environment and our lands. This includes identifying and minimising environmental risks through assessment, control, and monitoring of operations.
- Efficiently utilise resources and seek to reduce energy derived from fossil fuels and increase the use of renewable energy. Undertake our business in a way that maintains our biosecurity status to protect our assets from exotic pests, weeds and diseases.
- Comply with all relevant environmental legislation, regulations, codes of practice and standards, including the Environment Division of the Northern Territory Government Department of Environment, Parks and Water Security (DEPWS), NT EPA and Environment Protection and Biodiversity Conservation (EPBC) Act.
- Minimise pollution and waste by employing efficient resource management practices and innovative technologies.

To ensure environmental compliance, SCA are implementing the following measures:

- Sustainability Framework: A regularly updated framework that focuses on key environmental management issues.
- Environmental Management Plans: Detailed plans outlining environmental management objectives for all operations, in accordance with EPA licenses.
- Environmental Impact Assessments (EIA): Conduct thorough EIAs for major development projects to evaluate potential impacts on protected environmental matters under the EPBC Act.
- Roles and Responsibilities: Clearly define roles to ensure actions are carried out effectively in relevant functional areas.
- Monitoring and Reporting: Conduct regular monitoring of environmental performance, with transparent reporting to regulatory bodies.
- Collaboration: Work closely with government agencies, local authorities, and other key stakeholders to ensure effective environmental protection and management.

This policy statement reflects SCA's commitment to sustainability, environmental responsibility, and continuous improvement across all aspects of our operations.

1.3.3 Identity: Proposed designated proponent

1.3.3.1 Are the Proposed designated proponent details the same as the Person proposing to take the action? *

Yes

Proposed designated proponent organisation details

ABN/ACN 67605335368
Organisation name SOUTHERN CROSS AGRI PTY LTD
Organisation address 4521 QLD

Proposed designated proponent details

Name Garry Edwards
Job title Chief Executive Officer
Phone 07 3153 8830
Email compliance@aamig.com.au
Address GPO Box 352 Brisbane Qld 4001

1.3.4 Identity: Summary of allocation

✔ Confirmed Referring party's identity

The Referring party is the person preparing the information in this referral.

ABN/ACN	67605335368
Organisation name	SOUTHERN CROSS AGRI PTY LTD
Organisation address	4521 QLD
Representative's name	Andrew McCarron
Representative's job title	Grants Research and Development Manager
Phone	0407911948
Email	andrew.mccarron@aamig.com.au
Address	GPO Box 352, Brisbane QLD 4001

✔ Confirmed Person proposing to take the action's identity

The Person proposing to take the action is the individual, business, government agency or trustee that will be responsible for the proposed action.

ABN/ACN	67605335368
Organisation name	SOUTHERN CROSS AGRI PTY LTD
Organisation address	4521 QLD
Representative's name	Garry Edwards
Representative's job title	Chief Executive Officer
Phone	07 3153 8830
Email	compliance@aamig.com.au
Address	GPO Box 352 Brisbane Qld 4001

✔ Confirmed Proposed designated proponent's identity

The Person proposing to take the action is the individual or organisation proposed to be responsible for meeting the requirements of the EPBC Act during the assessment process, if the Minister decides that this project is a controlled action.

Same as Person proposing to take the action information.

1.4 Payment details: Payment exemption and fee waiver

1.4.1 Do you qualify for an exemption from fees under EPBC Regulation 5.23 (1) (a)? *

No

1.4.3 Have you applied for or been granted a waiver for full or partial fees under Regulation 5.21A? *

No

1.4.5 Are you going to apply for a waiver of full or partial fees under EPBC Regulation 5.21A?

No

1.4.7 Has the department issued you with a credit note? *

No

1.4.9 Would you like to add a purchase order number to your invoice? *

No

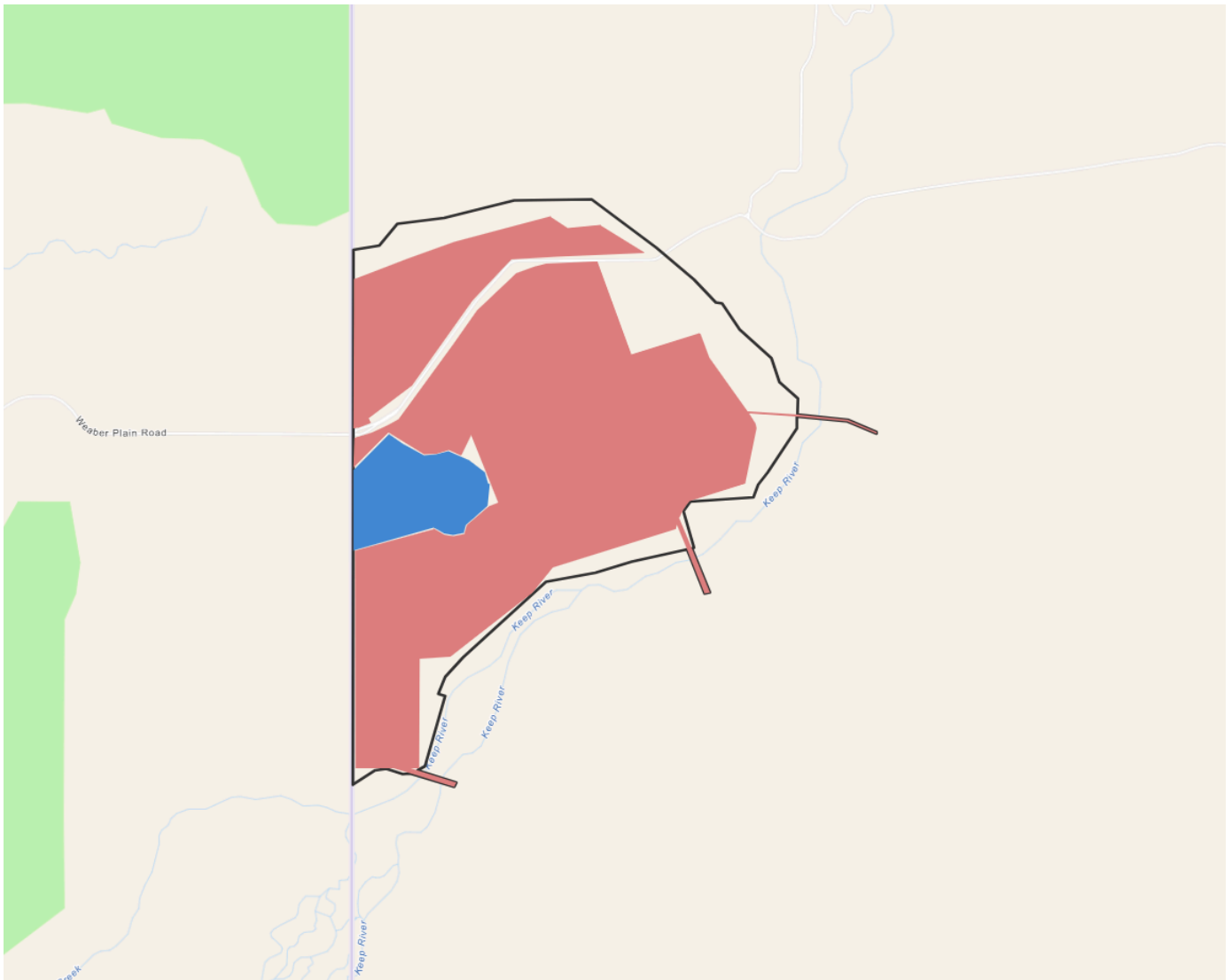
1.4 Payment details: Payment allocation

1.4.11 Who would you like to allocate as the entity responsible for payment? *

Person proposing to take the action

2. Location

2.1 Project footprint



Project Area: 4563.22 Ha Disturbance Footprint: 3280.93 Ha Avoidance Area: 313.47 Ha

2.2 Footprint details

2.2.1 What is the address of the proposed action? *

Spirit Hills Pastoral Lease, Legune Road, Baines, Northern Territory.

2.2.2 Where is the primary jurisdiction of the proposed action? *

Northern Territory

2.2.3 Is there a secondary jurisdiction for this proposed action? *

No

2.2.5 What is the tenure of the action area relevant to the project area? *

Sublease under *Pastoral Land Act 1992* on Spirit Hills PPL1200, supported by a proposed Non-Pastoral Use Permit for primary production activities.

PLEASE NOTE THAT THE UPLOAD OF MAPS TO THIS SYSTEM HAS RESULTED IN AREAS CALCULATED THAT ARE INCONSISTENT WITH ARCGIS (OR GOOGLE EARTH CALCULATIONS). SPECIFICALLY, THE FOLLOWING DIFFERENCES HAVE BEEN IDENTIFIED

PROJECT AREA -

PROPONENT CALCULATION - 4524.52ha

EPBC CALCULATION - 4563.22ha

DISTURBANCE FOOTPRINT -

PROPONENT CALCULATION - 3269.37ha

EPBC CALCULATION - 3280.93ha

EXCLUSION AREA -

PROPONENT CALCULATION - 314.43ha

EPBC CALCULATION - 313.47ha

THE PROPONENT IS REFERRING THIS PROJECT TO OTHER REGULATORS (EG NT EPA AND THE NT PASTORAL LAND BOARD) FOR OTHER ENVIRONMENTAL APPROVALS, BASED ON THE NUMBERS UNDERLINED ABOVE - THAT IS, THE ARCGIS-CALCULATIONS AND NOT THE INCONSISTENT AREAS CALCULATED THROUGH THE EPBC REFERRAL SYSTEM. THE PROPONENT HAS BEEN UNABLE TO RECTIFY THIS INCONSISTENCY.

3. Existing environment

3.1 Physical description

3.1.1 Describe the current condition of the project area's environment.

The Sweetwater Stage 1 area forms part of the Spirit Hills pastoral lease, which has been grazed by cattle for approximately 100 years. Since 2000, the area has been burnt on average every three years (see <https://firenorth.org.au/nafi3/>).

Immediately adjacent to the proposal area, and within the same land system, is the Knox Creek Plain agricultural development, the subject of EPBC 2014/7143. The condition of the land has been consistent with the condition of the Knox area, which was approved for development in 2015, and includes heavy grazing and variable weed infestation.

Preliminary (reconnaissance) inspections were undertaken by consultant botanists from Ecosystem Solutions in May 2024. Basic relevée surveys and drone inspections were conducted. Ecosystem Solutions noted the broad categorisations of the vegetation structure and type were reasonably homogeneous (Ecosystem Solutions, 2024). The botanists identified that considerable portions of the site was highly degraded, with evidence of impact of cattle grazing and introduced grasses and pest weeds having reduced the integrity and ecological resilience of the vegetation classes observed.

Vegetation condition assessment will be completed as part of the Environmental Impact Statement (EIS) to be prepared for the NT EPA's assessment process in 2025. This will include botanical surveying and condition reporting scheduled for the seasonally appropriate period post-wet season (April/May) 2025.

Following initial site reconnaissance surveys, land capability and other documentation review, and topographical assessment, the proposed farm layout as presented in Attachment A is the basis on which the investigations proposed for the EIS will be undertaken.

Multiple existing river crossing locations are identified in this Stage 1 referral. Their suitability, including in relation to environmental factors and current condition, forms part of the proposed EIS requirements. Proposed crossing locations coincide with existing fence and track crossings predominantly utilised during the dry season through the Keep River, wherever possible. It is noted that both the Keep River and Knox Creek are ephemeral (that is, seasonally dry), with river crossings historically used for cultural and station management purposes.

A condition review and subsequent reporting will be incorporated into the EIS which is to be submitted to the NT EPA for their assessment.

This EPBC referral seeks bilateral assessment by the NT EPA on behalf of DCCEE, which will include a review of the current condition of the property.

3.1.2 Describe any existing or proposed uses for the project area.

The Sweetwater Agricultural Development will develop areas of the Spirit Hills pastoral lease for agricultural cropping. The Stage 1 proposal is submitted in line with the expressed intention of the NT Government, through the Northern Territory Land Corporation (NTLC), to develop the Keep River area for agriculture. The proposal has arisen following decades of government and industry planning, cultural assessments, liaison and inspections with Traditional Owners, Native Title negotiations, land tenure changes, environmental studies and the reservation of conservation areas and the Keep River National Park.

The proposed three-stage Sweetwater development is the outcome of this long-term planning process and is the current name for the NT portion of the Ord Stage 2 M2 Development Area (Wesfarmers-Marabeni, 1998-2003), also referred to as Ord Stage 3 or the Keep River Plains project and more recently as the Northern Agricultural Development.

The overall 'Keep Plains Agricultural Development' area was released to the market by the NT Land Corporation (NTLC) in 2020, covering 67,500 hectares. The anticipated outcome was investment in agricultural infrastructure to support broadacre crops like corn, cotton, sorghum, chickpeas and mung beans. Having successfully secured the NTLC tender and reviewed the development parameters affecting the site, AAM has determined there are no feasible alternatives that will be commercially viable.

To accommodate minor on-site footprint amendments, this proposal includes a broader envelope, and the maximum development (clearing) area within that envelope. However, there is no option to relocate the proposal to an alternative location.

The long-term outlook for the Sweetwater development is significant, and materially positive to the region and the Northern Territory, especially in the context of agricultural expansion and regional infrastructure improvements. It aligns with the NT's broader agricultural strategy, which aims to grow the sector as a significant contributor to both domestic and export markets.

Several factors enhance the long-term potential of this region.

The NT Government has invested over \$58 million in upgrading the Keep River Plains Road, facilitating better access to the area, which is key for logistical and commercial development.

The Keep River Plains is part of a larger effort to diversify the NT economy, create sustainable jobs, and position the territory as a competitive agricultural producer globally. These developments are expected to create new jobs and foster opportunities in agribusiness, logistics, and infrastructure.

This proposal will contribute to Northern Australia's goal of attracting private investment and promoting long-term economic resilience. Initially, Sweetwater Stage 1 will be developed as a dryland (monsoonal rain fed) farming enterprise. It is intended that this will be augmented by 10,000 megalitres (ML) of on-site water storage capacity, at location/s to be determined following hydrogeological assessment included in the EIS terms of reference proposed to the NT EPA.

Annual crops may include, but are not limited to, corn, cotton, sorghum, chickpeas, mung beans and other grain legumes and cereals suited to the tropical northern environment.

The site topography allows for drainage management and tailwater reticulation from the proposed storage location. Farm designs will be finalised for maximum water retention and reuse.

Given the region's proximity to the Ord River Irrigation Scheme, later stages of the Sweetwater project will capitalise on the water resources and infrastructure in place, further supporting its agricultural productivity. Irrigation opportunities for Stage 1 will be developed over time. Future irrigation across all three stages is anticipated, using surface water diverted from Lake Argyle via Ord irrigation infrastructure. Access and will be negotiated with the WA Government (through the WA Water Corporation) and private infrastructure owners and/or managers of supply infrastructure.

A licence under the *Rights in Water and Irrigation Act 1914* (WA) (RiWI Act) will be sought in the future, noting that the *Ord Surface Water Allocation Plan* (Department of Water, 2013) nominally allocates 750 gigalitres (GL) of water per annum to the 'Main Ord' subregion, which includes the Keep River Plain in the NT.

Within that volume, there is a provision in the Ord water plan of 160GL per year for the NT portion of the original M2 irrigation supply area. This provision allows for a nominal minimum 10ML/ha of irrigation for approximately 14,000ha in total, with an allowance of 20GL for distribution losses, in 95% of years (Department of Water, 2013).

Consequently, there should be adequate water available to support a irrigation project if conversion from dryland to external irrigation supply occurs, subject to future licensing and supply negotiations.

The Australian Government's National Water Grid Fund is supporting the rigorous scientific, environmental, social and economic assessment of the irrigation supply options to the Keep River Plains area in which the Sweetwater Project is located. This is further supported by the NTG's feasibility assessment of irrigated agriculture on the Keep River Plains, completed in 2019.

The Western Australian State Government and the Australian Federal Government have both supported the construction of the Kimberley Cotton Company's Kununurra cotton gin, with statutory approvals facilitation, grants and a Northern Australia Infrastructure Facility (NAIF) loan underwriting the establishment of local cotton processing. This enabling infrastructure provides the opportunity for commercially viable agricultural expansion in the region based around a core rotation crop in cotton.

This project therefore aligns with the strategic intent of both the NT and Australian Governments in relation to sustainable development of food and fibre production and water management systems in Northern Australia.

This is a long-term (100 year plus) food and fibre proposal with no foreseeable decommissioning plans. Should decommissioning be required in the future, it is expected that the proponent will refer any relevant decommissioning plans to the environmental regulators at that time.

3.1.3 Describe any outstanding natural features and/or any other important or unique values that applies to the project area.

The proposal area is located in the vicinity of natural features and reserves including -

- Conservation Reserves established under the Ord Final Agreement, and ILUA negotiated to enable the development of Ord Stage 2.
- Keep River National Park (and the Keep National Park extension area)
- Keep River
- Spirit Hills (culturally significant site excluded from the development / disturbance area)

The proposal is within the Victoria-Bonaparte biogeographic region, and falls within the Keep River Area Site of Conservation Significance classified by the NT and Australian Governments. Long term identification of large portions of this area for intensive and irrigated agriculture projects is noted in the relevant listing advice.

The WA Conservation Reserves and the Keep River National Park Extension area have been established in parallel with the long-term discussions regarding further agricultural development. The proximity of these locations is illustrated in Figure 3 of Attachment A.

The parallel protection of conservation assets while converting less sensitive areas to agriculture has ensured the retention and preservation of regional conservation assets. The environmental values of these areas, and the potential impacts of the proposed development on the values will be explored in the EIS proposed under the concurrent NT EPA referral.

3.1.4 Describe the gradient (or depth range if action is to be taken in a marine area) relevant to the project area.

The Sweetwater Stage 1 area comprises a flat plain with minimal slope.

Avoidance of unique and special landforms is a key element of the design of the Sweetwater development. The proposed Stage 1 design excludes the Spirit Hill rocky outcrop area for both cultural and geophysical reasons.

Figure 8 of Attachment A illustrates the topography of the Stage 1 development. Notably there is very little west to east fall over the extent of the plain. This topographical representation is supplemented by Figure 9, identifying potential rocky sites in the project area. Rock outcrops will be avoided. The remainder of the development area is alluvial plains, as illustrated in Figure 10 of Attachment A. It is the alluvial plains which are of farming value due to the combination of soil type and topography.

Due to the adoption of the highest level of impact minimisation (avoidance), the distinctive landforms within the Sweetwater Stage 1 envelope will not be cleared and developed. The preliminary assessment therefore indicates the environmental values of those areas, including the cultural and biodiversity values, will not be significantly impacted by the proposal. This will be further explored in the EIS to be undertaken for the NT EPA.

The site topography allows for drainage management and tailwater reticulation from the proposed storage location. Farm designs will be finalised for maximum water retention and reuse.

3.2 Flora and fauna

3.2.1 Describe the flora and fauna within the affected area and attach any investigations of surveys if applicable.

Numerous studies of local and regional biodiversity have been completed in the immediate vicinity of the Sweetwater Stage 1 area, and the adjacent Ord River Irrigation Area. Section 5 of Attachment A specifically addresses terrestrial ecological systems, including vegetation types, habitats and species. These have been informed by over forty years worth of ecological assessments, many of which are listed in the bibliography of Attachment A. Advice and data from these surveys will be used in the biodiversity assessment to be completed as part of the environmental impact assessment.

FLORA

In relation to significant flora, under the *Territory Parks and Wildlife Conservation Act 1976* (TPWC Act), 70 angiosperm species are listed as *Critically Endangered*, *Endangered* or *Vulnerable* Territory-wide. Of these, 46 are also listed under the EPBC Act across the entire NT. A September 2024 search of the Flora NT website by AAM's consultant botanists (Ecosystem Solutions) of the Sweetwater Stage 1 site found none of the listed species have been recorded in the area, either as specimens taken and later botanically confirmed, or by observation.

It is noted that *Typhonium* (potentially including *Typhonium sp. kununurra* and *Typhonium sp. keep river*) are likely to be present in the Sweetwater area. Targeted searches for the species will be conducted by suitable people trained in *Typhonium* survey and identification by the Department of Primary Industries and Regional Development (DPIRD) in Kununurra. This is noted in the terms of reference for the EIS to be conducted under the NT EPA requirements. Detailed historic survey information will be utilised through a targeted, limited survey for the area. The area to be surveyed will be specially targeted to key habitat areas and undertaken in consultation with current and ex-NT herbarium staff.

Due to the extent of clearing proposed, and to ensure proposed environmental impact statement includes further flora assessments to be undertaken. These are scheduled to occur following the 2025 'wet season' (nominally April/May 2025) when plant flowering enables improved plant identification opportunities, and the onset of the dry season permits access to the black soil plains. The assessment methodology will be consistent with the *Full Characterisation site survey* as described in Brocklehurst et al (2007) *Northern Territory Guidelines and Field Methodology for Vegetation Survey and Mapping*, and the *NT EPA Guidelines for Assessment of Impacts on Terrestrial Biodiversity* (NT EPA, 2013a).

Following the completion of the 2025 field studies, an assessment of the significance and residual impacts on terrestrial flora and vegetation communities will inform the EIS. The proposal is informed by the NT EPA's *Guidelines for Assessment of Impacts on Terrestrial Biodiversity* (NT EPA, 2013), noting that protection does not mean there will be no impacts. The focus is on potentially significant consequences of an action, and maintaining environmental values.

Terrestrial fauna species listed under the *Territory Parks and Wildlife Conservation Act 1976* (NT) and the EPBC Act 1999 (Cth) which may be present within a buffer of 10 kilometres of the proposal area are listed in Table 7.

It is noted that the 'simple presence' category is as indicated by the EPBC Protected Matters Search Tool (PMST) in a search conducted on 29 September 2024 (see Attachment E). A preliminary review of available NT records indicates that not all species listed as likely to be present in the PMST have been historically recorded in the region. This will be further explored in the EIS investigations, per the draft ToR attached.

FAUNA

Numerous fauna surveys have previously been conducted in the adjoining Knox Plain and Sorby Hills landscapes to the west of the Sweetwater Stage 1 area, including those prepared by Sorby Hills (2012) Ecologica (1997) HLA (2005) Kinhill (1999), Ecowise (2005), Lumsden et al (2005) and APM (2009). Other studies, including both species and habitat investigations, have been undertaken in the delivery of the Weaber Plain (Goornig) and Knox Creek Plain environmental approval requirements over the past fifteen years. The proposed EIS will draw on this information, and targeted field surveys to be completed in 2025,

to determine the likelihood and significance of impacts upon listed terrestrial fauna. The *NT EPA Guidelines for Assessment of Impacts on Terrestrial Biodiversity* (NT EPA, 2013a) will guide the survey methodologies, supported by individuals species recovery plan advice.

A non-exhaustive summary of relevant terrestrial biodiversity studies which have been undertaken in the region is provided in Table 6 of Attachment A. These studies inform the environmental impact assessment in relation to flora, fauna, ecological communities and habitat which will be undertaken to meet the requirements of both the NT EPA, and DCCEEW in relation to the EPBC Act.

Direct impacts on ecologically significant terrestrial fauna species, and on the habitats that support those species, will be investigated and quantified wherever possible as a key element of the proposed environmental impact statement. Should mitigatory actions be required, these will be identified during the EIA process and proposed in the final EIS.

3.2.2 Describe the vegetation (including the status of native vegetation and soil) within the project area.

Vegetation communities and structure present in the project area are mapped in Figures 16 and 17 of Attachment A. The vegetation mapping is derived from NT Government data, informed by decades of research into soils, land systems, vegetation and habitats which commenced in the mid 1970s. There are 20 different land units in the project area. The project area is dominated by low open woodland and low sedgeland.

Soil systems mapping has been completed and is summarised in Section 5 of Attachment A. Soil types in the development area (Figure 11) correspond with the soil formations provided in Figure 10 of the attachment. Vertosols, or clay soils with shrinking and swelling properties, dominate the location. These clays exceed a depth of 1.5m across the entire proposal envelope, with the exception of the Knox Creek and Keep River drainage lines, and the rocky outcrop in the southwest corner. Soil depth is mapped in Figure 12 of Attachment A. Associated with the deep clays is sodicity risk, particularly where drainage is poor (see Figure 13).

The NT Government has completed a detailed Land Capability Assessment (LCA) for the project area, extending to the nearby Keep River Plain (Carnavas et al, 2019). The LCA has substantially guided AAM in its identification of suitable areas for development, and for avoidance (for geophysical or other environmental risk reasons). Most of the Stage 1 development area is classified as having minor or moderate constraints in the LCA.

The proposal area is located within the Ivanhoe Land System. This land system is classified under the Western Australian *Biodiversity Conservation Act 2016* as a Priority 3(iii) ecological community. This classification is applied to *poorly known ecological communities made up of large, and/or widespread occurrences, that may or may not be represented in the reserve system, but are under threat of modification of much of their range from processes such as grazing by domestic and/or feral stock, inappropriate fire regimes, clearing, hydrological change, etc.* (Department of Environment and Conservation, 2013, p6). This legislation and therefore the classification does not apply in the Northern Territory.

As discussed earlier, the consultant botanists engaged by AAM (Ecosystem Solutions) conducted basic revegetation surveys and drone inspections in May 2024. The botanists noted that broad categorisations of the vegetation structure and type were "reasonably homogenous". Further, they identified that considerable portions of the site were highly degraded, with evidence of impact of cattle grazing and introduced grasses and pest weeds having reduced the integrity and ecological resilience of the vegetation classes observed. This will be quantified in surveys of the sites proposed to be undertaken to inform the EIS, and will incorporate impact investigations to validate the detailed investigations already undertaken.

3.3 Heritage

3.3.1 Describe any Commonwealth Heritage Places Overseas or other places recognised as having heritage values that apply to the project area.

The proponent seeks to protect culture and heritage, and has adopted the 'avoidance' approach in developing the Sweetwater Stage 1 proposal. This includes meeting obligations under *Heritage Act 2011* (NT) and Commonwealth heritage legislation, and is working with Traditional Owners to ensure known cultural heritage sites are protected, and to establish avoidance and risk mitigation processes should any new sites be identified during development.

Informed by the NT Aboriginal Affairs Planning Authority (AAPA) Abstract of Records reflecting registered cultural heritage mapping, the Sweetwater Stage 1 proposal area has been developed on the basis of avoiding known sites.

Further, the proposal area avoids the historic Spirit Hills pastoral lease homestead site.

A heritage exclusion zone has been set aside at Spirit Hills, due to its Indigenous cultural values.

The proposed environmental impact assessment addresses culture and heritage requirements to avoid future risk to known and unknown sites.

There are no World Heritage-listed or National Heritage areas within 10km of the Sweetwater Stage 1 area.

3.3.2 Describe any Indigenous heritage values that apply to the project area.

CULTURAL HERITAGE

The Sweetwater proposal has arisen following decades of government and industry planning, cultural assessments, liaison and multiple site inspections with Traditional Owners, and Native Title negotiations. The Project Area includes known sites of Aboriginal cultural significance. The proponent has received NT Aboriginal Affairs Planning Authority (AAPA) Abstract of Records, and Heritage Branch Advice for the locality.

Avoidance of cultural heritage sites has strongly informed the proposed farm layout and infrastructure plans. The designated avoidance area (also referred to as the 'exclusion zone') is a site of cultural significance. Continued engagement, as described below, will inform and ensure the protection of heritage values.

FIRST NATIONS ENGAGEMENT

A specific focus is applied to indigenous stakeholders, and in particular Traditional Owners. Section 9.2 of Attachment A provides additional insight into related cultural heritage matters which are informing and guiding the Sweetwater Stage 1 development proposal.

First Nations engagement activities to date have included the following:

Yawoorroong Miriuwung Gajerrong Yirrgeb Noong Dawang Aboriginal Corporation (MG Corporation)

AAM has maintained regular engagement with the Executive Chair and Directors of MG Corporation in relation to the Sweetwater Development proposal and associated planning pathways, including formal presentations to the Board on 10 September 2024 and 15 May 2025. MG Corporation represents the interests of native title holders and has confirmed its willingness to act as a facilitator - supporting engagement and consultation with representatives of native title estate groups. Additionally, MG Corporation has communicated to AAM that they are willing to play an active role in any discussions relating to the Northern Land Council. AAM is committed to meaningful collaboration with MG Corporation, Northern Land Council and the traditional owners relevant to the project.

Djarrany Djarrany Aboriginal Corporation

AAM has regular discussions with the representatives of the Djarrany Djarrany group. This has been a combination of formal and informal meetings on a range of matters including the developments on Legune, Sacred Site identification, tourism ventures on Legune and in relation to the Indigenous Land Use Agreement (ILUA) on Legune between Sea Farms Group (SFG) and the Djarrany Djarrany group, to which AAM is a party to as the Landowner.

The majority of the meetings have been held in Kununurra either directly with MG corporation or in the case of the Djarrany Djarrany with the presence of various Northern Land Council (NLC) representatives.

Matters raised during the consultations have included -

- General interaction on location
- Fishing rights
- Managing tourists
- The identification and protection of Sacred Sites
- Tourism ventures
- Development proposals on Legune and Spirit Hills inclusive of Sweetwater

As an outcome of the discussions, a number of changes have been made to the proposal planning, including in relation to heritage protection and Keep River access, and incorporating potential access to AAM's adjacent Legune Station for a tourism venture.

ILUA negotiations and Native Title responsibilities, as well as heritage obligations, are integrated and are addressed holistically in the discussions.

3.4 Hydrology

3.4.1 Describe the hydrology characteristics that apply to the project area and attach any hydrological investigations or surveys if applicable. *

The objective of the NT EPA in relation to hydrological processes is to protect the surface water and groundwater regimes so that environmental values, including ecological health, land uses and the welfare and amenity of people are maintained (NT EPA, 2022b). This includes the supply and quantity of water in rivers, creeks and wetlands and groundwater, and the ecosystems they support, including groundwater dependent ecosystems (GDEs) and stygofauna.

Considerations include present and future uses and users of water, water supplies, and culturally important water features. It is noted that the downstream, coastal portions of the Keep River are traditional fishing grounds, with significant recreational use by residents of and tourists visiting Kununurra and the surrounding region.

As Sweetwater Stage 1 will initially be a dryland farming development augmented by the capture of rainfall runoff, AAM will comply with the NTG's *Surface water take – wet season flow policy* (NTG, 2023). The EIA process will quantify the available stormwater water which can be diverted and utilised for on-farm irrigation purposes. Data from the nearby Keep River and Border Creek gauging stations will inform this assessment. Water licence application/s will be submitted to the NTG accordingly.

Surface Water Resources

The Sweetwater proposal area falls within the Keep River catchment, and specifically between Border Creek to the north and Knox Creek to the south of the development envelope. In the upstream, the Keep River is ephemeral (seasonal). Flows are generally restricted to the wet season, which can commence in October but is usually observed between December and March/April. There is only minimal base flow, if any, in the upper reaches of the Keep River during the dry season from June through to October.

Both the Knox and Border creeks are also seasonal. NTG gauging stations Border Creek Weaber Range (G8100106) and Keep River Legune Road Crossing (G8100225) provide telemetered monitoring of water levels and flows. Upstream of the Legune Road crossing, the main watercourse of the Keep River is reasonably well defined. Secondary flood channels exist parallel to the river along most of the river length. Billabongs and lagoons occur at various locations on the upstream floodplain, particularly within former drainage lines of the river. The Keep River has a catchment of over 5,000 km², of which the Sweetwater Stage 1 envelope comprises less than 1 per cent. The river is highly dynamic and can be classified as moderately disturbed due largely to a century of cattle grazing along its banks.

Figure 18 of Attachment A illustrates the location of the Keep River pools currently monitored by the WA DPIRD and other environmental approval holders, in relation to water quality, under the requirements of EPBC 2010/5491 (Weaber Plain) and EPBC 2014/7143 (Knox Creek Plain). The pool nomenclature, including the 'K4 pool' being the 1.5 kilometre stretch upstream of the Legune Road crossing, will be adopted in the EIS proposed per the draft ToR. This will ensure consistency with existing WA and Commonwealth Government environmental approvals monitoring requirements. Anecdotal evidence also indicates that there was no dry season flow out of this pool prior to 2000. Since 2001, pool K4 has maintained dry season flow, under natural conditions (including increase in rainfall recharge to groundwater in recent decades).

Bennett & George (2011) describe that groundwater now discharges continuously during dry seasons from the K4 to the K3 pool. Tidal interchange occurs in the K1, K2 and K3 pools, effectively providing year-round flow in the Keep River (ie the pools do not regularly become isolated). Due to the tidal influence, the water quality (particularly in relation to EC levels) within the Keep River is highly variable in the K1-K3 pools.

Surface water changes associated with the proposed development could include increased stream flow arising from land clearing; and changes in flow dynamics due to the drainage, storage and levee bank systems proposed for the Stage 1 development. These will be investigated and quantified (wherever possible) in the EIS process to assess their significance. This will be undertaken in line with the

requirements of the NTG's *Surface water take – wet season flow policy* (NTG 2023) to ensure long term sustainability. Flow-related environmental outcomes will then be quantified, and mitigation proposed if impacts are considered significant.

Following their review of the irrigation feasibility of the area including the Sweetwater Stage 1 proposal envelope, Short et al (2019) made the following technical recommendations to further improve the surface water knowledge prior to cropping development:

- *Update rainfall-runoff model to incorporate LIDAR DEM, and to include Sandy Creek and coastal influences.*
- *Undertake and maintain surface water quality monitoring to track baseline conditions before and after any development.*
- *Undertake targeted investigations to determine groundwater contributions to streamflow and water quality.*

These matters will be addressed in the EIS, including an assessment of the significance of any surface water impacts arising from Sweetwater Stage 1. Historical water quality data will be accessed and integrated with hydrodynamic modelling to assess environmental risk.

Flooding and Surface Drainage

Flood risk in the Sweetwater Stage 1 proposal area is mapped in Figure 5 of Attachment A. This indicates the extent to which flood risk (and associated features such as topography per Figure 8 of the document) have guided the project planning and informed the application of avoidance and minimisation strategies.

Flood risk and drainage have been considered in the irrigation feasibility and land capability assessment completed for the (former) NT Department of Environment and Natural Resources (DENR) by Short et al (2019) and Carnavas et al (2019) respectively.

Figure 21 of Attachment A, taken from Short et al (2019), illustrates the 1-in-5 year (Q5) and 1-in-10 year (Q10) flood event scenarios for the broader Knox and Keep River plains area. Notably, in both modelled scenarios, the Sweetwater Stage 1 proposal area predominantly avoids inundation, as shown.

Figures 22 and 23 of Attachment A show the flood and drainage risks to soil capability identified during that assessment. The bulk of the project site is classified as 'moderate to imperfect' or 'imperfect' drainage, reflecting the combined interactions of the surface water hydrology, coastal processes (for example, tidal influence in the lower Keep River pools and estuary), and the topography of the lower Weaber Plain.

These interactions, and their potential for environmental impact when the proposed development commences, will be considered in the EIS. The mitigation of flood and drainage-related impacts, including through the use of levee banks and controls to ensure fertiliser and chemical use on farm is not lost to the downstream environment.

Groundwater

The groundwater receiving environment of the lower Weaber Plain and surrounding areas has been the subject of multiple and ongoing studies and modelling over recent decades, including those by Humphries (1995), Chin et al (1997), O'Boy et al (2001), KBR (2005 and 2011) and the WA Government through the (George et al, 2011), and Harris-Pascal et al (2019).

Environmental impacts to be considered include groundwater chemistry change arising from clearing and farming, and the implications of natural and induced groundwater rise, including in relation to soil salinity risk (see below) and the volume and quality of water naturally discharged into the Keep River. Additionally, as identified during the Ord Stage 2 (Weaber Plain) environmental approvals processes, the proposed management of groundwater across the region includes dewatering. The use and implications of dewatering options, if ever required, is a further consideration.

The comprehensive review of available literature and data completed for the irrigated agriculture feasibility assessment conducted by the NT Government (Short et al, 2019) found that soils in the Sweetwater Stage 1 area exhibited low or medium-low salinity risk when combining soil salinity, soil drainage potential, shallow groundwater salinity and depth to water table. Figure 22 of Attachment A, taken from that assessment, indicates the overall salinity risk for Sweetwater Stage 1 and other areas.

Increased groundwater discharge into the Keep River K4 pool and downstream water quality and associated aquatic fauna implications of this increased freshwater inflow will also be considered in the EIS, to assess whether any impacts on water quality and riverine health will be significant. This is specifically in relation to the aquatic fauna MNES (*Pristis pristis* and *Pristis clavata*) known to be present in the Keep River.

Historic data from a substantial monitoring network of bores owned by Geoscience Australia and the NT Government will be accessed to obtain baseline data and to inform modelling. This will include groundwater depth analysis and modelling, and water chemistry (quality) changes, in order to assess long term environmental risk, and mitigate accordingly.

4. Impacts and mitigation

4.1 Impact details

Potential Matters of National Environmental Significance (MNES) relevant to your proposed action area.

EPBC Act section	Controlling provision	Impacted	Reviewed
S12	World Heritage	No	Yes
S15B	National Heritage	No	Yes
S16	Ramsar Wetland	No	Yes
S18	Threatened Species and Ecological Communities	Yes	Yes
S20	Migratory Species	Yes	Yes
S21	Nuclear	No	Yes
S23	Commonwealth Marine Area	No	Yes
S24B	Great Barrier Reef	No	Yes
S24D	Water resource in relation to large coal mining development or coal seam gas	No	Yes
S26	Commonwealth Land	No	Yes
S27B	Commonwealth Heritage Places Overseas	No	Yes
S28	Commonwealth or Commonwealth Agency	No	Yes

4.1.1 World Heritage

You have identified your proposed action will likely directly and/or indirectly impact the following protected matters.

A direct impact is a direct consequence of an action taken – for example, clearing of habitat for a threatened species or permanent shading on an ecological community as the result of installing solar panels.

An indirect impact is an 'indirect consequence' such as a downstream impact or a facilitated third-party action.

—

4.1.1.1 Is the proposed action likely to have any direct and/or indirect impact on any of these protected matters? *

No

4.1.1.3 Briefly describe why your action is unlikely to have a direct and/or indirect impact.

*

There are no World Heritage matters listed on the PMST report, and there are no World Heritage sites in proximity to the site

4.1.2 National Heritage

You have identified your proposed action will likely directly and/or indirectly impact the following protected matters.

A direct impact is a direct consequence of an action taken – for example, clearing of habitat for a threatened species or permanent shading on an ecological community as the result of installing solar panels.

An indirect impact is an 'indirect consequence' such as a downstream impact or a facilitated third-party action.

—

4.1.2.1 Is the proposed action likely to have any direct and/or indirect impact on any of these protected matters? *

No

4.1.2.3 Briefly describe why your action is unlikely to have a direct and/or indirect impact.

*

There are no National Heritage matters listed on the PMST report, and there are no National Heritage places in proximity to the site

4.1.3 Ramsar Wetland

You have identified your proposed action will likely directly and/or indirectly impact the following protected matters.

A direct impact is a direct consequence of an action taken – for example, clearing of habitat for a threatened species or permanent shading on an ecological community as the result of installing solar panels.

An indirect impact is an 'indirect consequence' such as a downstream impact or a facilitated third-party action.

—

4.1.3.1 Is the proposed action likely to have any direct and/or indirect impact on any of these protected matters? *

No

4.1.3.3 Briefly describe why your action is unlikely to have a direct and/or indirect impact.

*

There are no Ramsar Wetlands listed on the PMST report, and there are no Ramsar Wetlands in proximity to the site.

There are Ramsar Wetlands in the Ord River catchment, but this proposal is not located in the Ord River catchment.

There are no direct or indirect impacts on those wetlands

4.1.4 Threatened Species and Ecological Communities

You have identified your proposed action will likely directly and/or indirectly impact the following protected matters.

A direct impact is a direct consequence of an action taken – for example, clearing of habitat for a threatened species or permanent shading on an ecological community as the result of installing solar panels.

An indirect impact is an 'indirect consequence' such as a downstream impact or a facilitated third-party action.

Threatened species

Direct impact	Indirect impact	Species	Common name
Yes		<i>Acanthophis hawkei</i>	Plains Death Adder
Yes		<i>Calidris acuminata</i>	Sharp-tailed Sandpiper
Yes		<i>Calidris ferruginea</i>	Curlew Sandpiper
Yes		<i>Chloebia gouldiae</i>	Gouldian Finch
Yes		<i>Dasyurus hallucatus</i>	Northern Quoll, Digul [Gogo-Yimidir], Wijingadda [Dambimangari], Wiminji [Martu]
Yes		<i>Erythroriorchis radiatus</i>	Red Goshawk
Yes		<i>Falco hypoleucos</i>	Grey Falcon
Yes		<i>Falcunculus frontatus whitei</i>	Crested Shrike-tit (northern), Northern Shrike-tit
Yes		<i>Macroderma gigas</i>	Ghost Bat
Yes		<i>Numenius madagascariensis</i>	Eastern Curlew, Far Eastern Curlew
Yes		<i>Pezoporus occidentalis</i>	Night Parrot
Yes		<i>Pristis pristis</i>	Freshwater Sawfish, Largetooth Sawfish, River Sawfish, Leichhardt's Sawfish, Northern Sawfish
Yes		<i>Rostratula australis</i>	Australian Painted Snipe
Yes		<i>Saccolaimus saccolaimus nudicluniatus</i>	Bare-rumped Sheath-tailed Bat, Bare-rumped Sheath-tail Bat
Yes		<i>Tiliqua scincoides intermedia</i>	Northern Blue-tongued Skink
Yes		<i>Trichosurus vulpecula arnhemensis</i>	Northern Brushtail Possum
Yes		<i>Tyto novaehollandiae kimberli</i>	Masked Owl (northern)

Direct impact	Indirect impact	Species	Common name
Yes		Varanus mertensi	Mertens' Water Monitor, Mertens's Water Monitor
Yes		Varanus mitchelli	Mitchell's Water Monitor

Ecological communities

4.1.4.1 Is the proposed action likely to have any direct and/or indirect impact on any of these protected matters? *

Yes

4.1.4.2 Briefly describe why your action has a direct and/or indirect impact on these protected matters. *

The majority of listed threatened species are migratory birds. A preliminary review of available Northern Territory and East Kimberley fauna records indicates that not all species listed as likely to be present in the PMST have been historically recorded in the region. This will be further explored in the environmental impact statement (EIS) required under the NT EP Act, which will also inform the EPBC assessment.

Direct impacts on ecologically significant terrestrial and aquatic fauna species, and on the habitats that support those species, will be investigated and quantified wherever possible as a key element of the EIS.

Numerous fauna surveys have previously been conducted in the adjoining Knox Plain and Sorby Hills landscapes to the west of the Sweetwater Stage 1 area, including those prepared by Sorby Hills (2012) Ecologica (1997) HLA (2005) Kinhill (1999), Ecowise (2005), Lumsden et al (2005) and APM (2009) [see Attachment A for reference details]. Other studies, including both species and habitat investigations, have been undertaken in the delivery of the Weaber Plain (Goornig) and Knox Creek Plain environmental approval requirements over the past fifteen years. The EIS will draw on this information, and targeted field surveys to be completed in 2025, to determine the likelihood and significance of impacts upon listed terrestrial fauna. The *NT EPA Guidelines for Assessment of Impacts on Terrestrial Biodiversity* (NT EPA, 2013a) will guide the survey methodologies.

In relation to listed aquatic fauna species, (*Pristis pristis*, and also *Pristis clavata* (Green Sawfish) which is known to be present in the Keep River but does not appear in the PMST database search), baseline water quality and aquatic fauna studies of the Keep River were completed in 2013 as a requirement of the Weaber Plain EPBC approval 2010/5491. Post-development studies were completed in recent years. Annual Keep River water quality monitoring (by others) continues as a requirement of EPBC 2010/5491 and the Knox Creek Plain EPBC approval 2014/7143, in order to protect the MNES present in the river.

These studies have included sediment sampling, targeted sawfish and shark surveys (noting that listed *Glyphis* species have not been recorded), and aquatic fauna ecological health assessment via macroinvertebrate, fish and water quality sampling in the Keep River pools and five reference sites. A summary of recent studies which inform the risk assessment is provided in Attachment A. The proposed EIS will include integration and compliance with existing Keep River water quality monitoring and management activities which have been informed by these studies. Impact mitigation actions (for example, in relation to farm water runoff during the wet season to avoid downstream risk) will be identified during the environmental impact assessment process and proposed in the EIS.

4.1.4.4 Do you consider this likely direct and/or indirect impact to be a Significant Impact?

*

Yes

4.1.4.5 Describe why you consider this to be a Significant Impact. *

Consistent with EPBC approvals 2010/5491 (Weaber Plain) and 2014/7143 (Knox Creek Plain) in relation to the listed species, the Sweetwater Stage 1 proposal could create a Significant Impact.

4.1.4.7 Do you think your proposed action is a controlled action? *

Yes

4.1.4.8 Please elaborate why you think your proposed action is a controlled action. *

With regard to the listed species which may be present in the region, consistency with EPBC approvals 2010/5491 (Weaber Plain) and 2014/7143 (Knox Creek Plain), and in relation to the NT EPA criteria for significant impact and the need for an Environmental Impact Statement to be prepared, the Sweetwater Stage 1 proposal is likely to be assessed as a controlled action.

4.1.4.10 Please describe any avoidance or mitigation measures proposed for this action and attach any supporting documentation for these avoidance and mitigation measures. *

The Sweetwater Stage 1 proposal has been developed in line with the avoid, minimise, mitigate hierarchy. The proposal is informed by decades of environmental assessments and monitoring on or near to the Spirit Hills pastoral lease location, including investigations undertaken in relation to the Ord River Irrigation Area expansion projects. Avoidance of higher environmental risk areas including the Keep River, and of cultural heritage sites, has strongly informed the proposed farm layout and infrastructure plans.

The Stage 1 project area (or envelope) encompasses the entire development area, including the proposed farm fields, infrastructure areas and zones for exclusion due to cultural heritage sensitivities. Following initial review and topographical assessment, the farm layout as presented in Attachment A is the basis on which the environmental impact assessment will be undertaken and the EIS prepared to inform NT EPA and EPBC decision-making.

Buffer recommendations in the *Land Clearing Guidelines* (NTG, 2021) will be factored into the development planning and the final proposal layout to be submitted with the *Sweetwater Stage 1 Environmental Impact Statement* which will be prepared following the initial referral processes.

Multiple existing river crossing locations are identified in this Stage 1 referral, and form part of the EIS requirements. Proposed crossing locations coincide with existing fence and track crossings predominantly utilised during the dry season through the Keep River, wherever possible. It is noted that both the Keep River and Knox Creek are ephemeral (that is, seasonally dry), with river crossings historically used for cultural and station management purposes.

To manage flood risk, the proponent will construct levee banks to manage wet season overland flows. Likely locations of levee bank release points have been identified (per Figure 4 of Attachment A), however these will be finalised following flood study and field assessments completed under the requirements of the EIS.

Surface and groundwater monitoring and management will ensure any risk to MNES in the Keep River is minimised.

FINAL DESIGN

Final farm design and infrastructure locations will be determined during the environmental impact assessment process, as environmental significance is addressed in depth.

It is expected that the final field and infrastructure layout could be amended to accommodate environmental values, topographical challenges or other factors which affect the feasibility of the farm layouts as currently proposed. Any areas within the overall envelope which are not required to be cleared will remain in their pre-development condition. However, by assessing and referring an area larger than the anticipated development footprint, AAM is ensuring that future modifications can be made within the confines of the referrals.

4.1.4.11 Please describe any proposed offsets and attach any supporting documentation relevant to these measures. *

No offsets are proposed as they have already been determined and allocated by the NT Government. In preparation for the agricultural development of this area over three decades, the Keep River National Park extension area and approximately 180,000 hectares of conservation reserve have been established within 50 kilometres of the Sweetwater location, under terms negotiated for the Ord River expansion into Ord Stages 2 and 3 (which includes Sweetwater).

Residual impacts following mitigation activities (to be outlined in the EIS) are not expected to be significant.

4.1.5 Migratory Species

You have identified your proposed action will likely directly and/or indirectly impact the following protected matters.

A direct impact is a direct consequence of an action taken – for example, clearing of habitat for a threatened species or permanent shading on an ecological community as the result of installing solar panels.

An indirect impact is an 'indirect consequence' such as a downstream impact or a facilitated third-party action.

Direct impact	Indirect impact	Species	Common name
Yes		<i>Acrocephalus orientalis</i>	Oriental Reed-Warbler
Yes		<i>Actitis hypoleucos</i>	Common Sandpiper
Yes		<i>Apus pacificus</i>	Fork-tailed Swift
Yes		<i>Calidris acuminata</i>	Sharp-tailed Sandpiper
Yes		<i>Calidris ferruginea</i>	Curlew Sandpiper
Yes		<i>Calidris melanotos</i>	Pectoral Sandpiper
Yes		<i>Cecropis daurica</i>	Red-rumped Swallow
Yes		<i>Charadrius veredus</i>	Oriental Plover, Oriental Dotterel
Yes		<i>Crocodylus porosus</i>	Salt-water Crocodile, Estuarine Crocodile
Yes		<i>Cuculus optatus</i>	Oriental Cuckoo, Horsfield's Cuckoo
Yes		<i>Glareola maldivarum</i>	Oriental Pratincole
Yes		<i>Hirundo rustica</i>	Barn Swallow
Yes		<i>Motacilla cinerea</i>	Grey Wagtail
Yes		<i>Motacilla flava</i>	Yellow Wagtail
Yes		<i>Numenius madagascariensis</i>	Eastern Curlew, Far Eastern Curlew
Yes		<i>Pristis pristis</i>	Freshwater Sawfish, Largetooth Sawfish, River Sawfish, Leichhardt's Sawfish, Northern Sawfish

4.1.5.1 Is the proposed action likely to have any direct and/or indirect impact on any of these protected matters? *

Yes

4.1.5.2 Briefly describe why your action has a direct and/or indirect impact on these protected matters. *

The majority of listed threatened species are migratory birds. A preliminary review of available Northern Territory and East Kimberley fauna records indicates that not all species listed as likely to be present in the PMST have been historically recorded in the region. This will be further explored in the environmental impact statement (EIS) required under the NT EP Act, which will also inform the EPBC assessment.

Direct impacts on ecologically significant terrestrial and aquatic fauna species, and on the habitats that support those species, will be investigated and quantified wherever possible as a key element of the EIS.

Numerous fauna surveys have previously been conducted in the adjoining Knox Plain and Sorby Hills landscapes to the west of the Sweetwater Stage 1 area, including those prepared by Sorby Hills (2012) Ecologica (1997) HLA (2005) Kinhill (1999), Ecowise (2005), Lumsden et al (2005) and APM (2009) [see Attachment A for reference details]. Other studies, including both species and habitat investigations, have been undertaken in the delivery of the Weaber Plain (Goornig) and Knox Creek Plain environmental approval requirements over the past fifteen years. The EIS will draw on this information, and targeted field surveys to be completed in 2025, to determine the likelihood and significance of impacts upon listed terrestrial fauna. The *NT EPA Guidelines for Assessment of Impacts on Terrestrial Biodiversity* (NT EPA, 2013a) will guide the survey methodologies.

In relation to listed aquatic fauna species, (*Pristis pristis*, and also *Pristis clavata* (Green Sawfish) which is known to be present in the Keep River but does not appear in the PMST database search), baseline water quality and aquatic fauna studies of the Keep River were completed in 2013 as a requirement of the Weaber Plain EPBC approval 2010/5491. Post-development studies were completed in recent years. Annual Keep River water quality monitoring (by others) continues as a requirement of EPBC 2010/5491 and the Knox Creek Plain EPBC approval 2014/7143, in order to protect the MNES present in the river.

These studies have included sediment sampling, targeted sawfish and shark surveys (noting that listed *Glyphis* species have not been recorded), and aquatic fauna ecological health assessment via macroinvertebrate, fish and water quality sampling in the Keep River pools and five reference sites. A summary of recent studies which inform the risk assessment is provided in Attachment A. The proposed EIS will include integration and compliance with existing Keep River water quality monitoring and management activities which have been informed by these studies. Impact mitigation actions (for example, in relation to farm water runoff during the wet season to avoid downstream risk) will be identified during the environmental impact assessment process and proposed in the EIS.

4.1.5.4 Do you consider this likely direct and/or indirect impact to be a Significant Impact?

*

Yes

4.1.5.5 Describe why you consider this to be a Significant Impact. *

Consistent with EPBC approvals 2010/5491 (Weaber Plain) and 2014/7143 (Knox Creek Plain) in relation to the listed species, the Sweetwater Stage 1 proposal could create a Significant Impact on listed migratory species - and in particular, *Pristis* species known to be present in the Keep River.

4.1.5.7 Do you think your proposed action is a controlled action? *

Yes

4.1.5.8 Please elaborate why you think your proposed action is a controlled action. *

With regard to the listed species which may be present in the region, consistency with EPBC approvals 2010/5491 (Weaber Plain) and 2014/7143 (Knox Creek Plain), and in relation to the NT EPA criteria for significant impact and the need for an Environmental Impact Statement to be prepared, the Sweetwater Stage 1 proposal is likely to be assessed as a controlled action.

4.1.5.10 Please describe any avoidance or mitigation measures proposed for this action and attach any supporting documentation for these avoidance and mitigation measures. *

The Sweetwater Stage 1 proposal has been developed in line with the avoid, minimise, mitigate hierarchy. The proposal is informed by decades of environmental assessments and monitoring on or near to the Spirit Hills pastoral lease location, including investigations undertaken in relation to the Ord River Irrigation Area expansion projects. Avoidance of higher environmental risk areas including the Keep River, and of cultural heritage sites, has strongly informed the proposed farm layout and infrastructure plans.

The Stage 1 project area (or envelope) encompasses the entire development area, including the proposed farm fields, infrastructure areas and zones for exclusion due to cultural heritage sensitivities. Following initial review and topographical assessment, the farm layout as presented in Attachment A is the basis on which the environmental impact assessment will be undertaken and the EIS prepared to inform NT EPA and EPBC decision-making.

Buffer recommendations in the *Land Clearing Guidelines* (NTG, 2021) will be factored into the development planning and the final proposal layout to be submitted with the *Sweetwater Stage 1 Environmental Impact Statement* which will be prepared following the initial referral processes.

Multiple existing river crossing locations are identified in this Stage 1 referral, and form part of the EIS requirements. Proposed crossing locations coincide with existing fence and track crossings predominantly utilised during the dry season through the Keep River, wherever possible. It is noted that both the Keep River and Knox Creek are ephemeral (that is, seasonally dry), with river crossings historically used for cultural and station management purposes.

To manage flood risk, the proponent will construct levee banks to manage wet season overland flows. Likely locations of levee bank release points have been identified (per Figure 4 of Attachment A), however these will be finalised following full flood studies to be completed under the requirements of the EIS.

Surface and groundwater monitoring and management will ensure any risk to MNES in the Keep River is minimised.

FINAL DESIGN

Final farm design and infrastructure locations will be determined during the environmental impact assessment process, as environmental significance is addressed in depth.

It is expected that the final field and infrastructure layout could be amended to accommodate environmental values, topographical challenges or other factors which affect the feasibility of the farm layouts as currently proposed. Any areas within the overall envelope which are not required to be cleared will remain in their pre-development condition. However, by assessing and referring an area larger than the anticipated development footprint, AAM is ensuring that future modifications can be made within the confines of the referrals.

4.1.5.11 Please describe any proposed offsets and attach any supporting documentation relevant to these measures. *

No offsets are proposed. In preparation for the agricultural development of this area over three decades, the Keep River National Park extension area and approximately 180,000 hectares of conservation reserve have been established within 50 kilometres of the Sweetwater location, under terms negotiated for the Ord River expansion into Ord Stages 2 and 3 (which includes Sweetwater).

Residual impacts following mitigation activities (to be outlined in the EIS) are not expected to be significant.

4.1.6 Nuclear

4.1.6.1 Is the proposed action likely to have any direct and/or indirect impact on this protected matter? *

No

4.1.6.3 Briefly describe why your action is unlikely to have a direct and/or indirect impact.

*

This proposal is not related to nuclear matters

4.1.7 Commonwealth Marine Area

You have identified your proposed action will likely directly and/or indirectly impact the following protected matters.

A direct impact is a direct consequence of an action taken – for example, clearing of habitat for a threatened species or permanent shading on an ecological community as the result of installing solar panels.

An indirect impact is an 'indirect consequence' such as a downstream impact or a facilitated third-party action.

—

4.1.7.1 Is the proposed action likely to have any direct and/or indirect impact on any of these protected matters? *

No

4.1.7.3 Briefly describe why your action is unlikely to have a direct and/or indirect impact.

*

There are no Commonwealth Marine Areas identified on the PMST. This is not in a Commonwealth Marine Area.

4.1.8 Great Barrier Reef

4.1.8.1 Is the proposed action likely to have any direct and/or indirect impact on this protected matter? *

No

4.1.8.3 Briefly describe why your action is unlikely to have a direct and/or indirect impact.

*

This proposal has no impact on the Great Barrier Reef.

4.1.9 Water resource in relation to large coal mining development or coal seam gas

4.1.9.1 Is the proposed action likely to have any direct and/or indirect impact on this protected matter? *

No

4.1.9.3 Briefly describe why your action is unlikely to have a direct and/or indirect impact.

*

This proposal does not relate to Coal Seam Gas or Coal mining.

4.1.10 Commonwealth Land

You have identified your proposed action will likely directly and/or indirectly impact the following protected matters.

A direct impact is a direct consequence of an action taken – for example, clearing of habitat for a threatened species or permanent shading on an ecological community as the result of installing solar panels.

An indirect impact is an 'indirect consequence' such as a downstream impact or a facilitated third-party action.

—

4.1.10.1 Is the proposed action likely to have any direct and/or indirect impact on any of these protected matters? *

No

4.1.10.3 Briefly describe why your action is unlikely to have a direct and/or indirect impact.

*

This proposal is not on or near Commonwealth Land.

4.1.11 Commonwealth Heritage Places Overseas

You have identified your proposed action will likely directly and/or indirectly impact the following protected matters.

A direct impact is a direct consequence of an action taken – for example, clearing of habitat for a threatened species or permanent shading on an ecological community as the result of installing solar panels.

An indirect impact is an 'indirect consequence' such as a downstream impact or a facilitated third-party action.

—

4.1.11.1 Is the proposed action likely to have any direct and/or indirect impact on any of these protected matters? *

No

4.1.11.3 Briefly describe why your action is unlikely to have a direct and/or indirect impact.

*

This proposal does not relate to Commonwealth Heritage Places Overseas.

4.1.12 Commonwealth or Commonwealth Agency

4.1.12.1 Is the proposed action to be taken by the Commonwealth or a Commonwealth Agency? *

No

4.2 Impact summary

Conclusion on the likelihood of significant impacts

You have indicated that the proposed action will likely have a significant impact on the following Matters of National Environmental Significance:

- Threatened Species and Ecological Communities (S18)
- Migratory Species (S20)

Conclusion on the likelihood of unlikely significant impacts

You have indicated that the proposed action will unlikely have a significant impact on the following Matters of National Environmental Significance:

- World Heritage (S12)
- National Heritage (S15B)
- Ramsar Wetland (S16)
- Nuclear (S21)
- Commonwealth Marine Area (S23)
- Great Barrier Reef (S24B)
- Water resource in relation to large coal mining development or coal seam gas (S24D)
- Commonwealth Land (S26)
- Commonwealth Heritage Places Overseas (S27B)
- Commonwealth or Commonwealth Agency (S28)

4.3 Alternatives

4.3.1 Do you have any possible alternatives for your proposed action to be considered as part of your referral? *

No

4.3.8 Describe why alternatives for your proposed action were not possible. *

The Sweetwater Stage 1 proposal has been developed in line with the avoid, minimise, mitigate hierarchy. The proposal is informed by decades of environmental assessments and monitoring on or near to the Spirit Hills pastoral lease location, including investigations undertaken in relation to the Ord River Irrigation Area expansion projects. Avoidance of higher environmental risk areas including the Keep River, and of cultural heritage sites, has strongly informed the proposed farm layout and infrastructure plans.

The Stage 1 project area (or envelope) encompasses the entire development area, including the proposed farm fields, infrastructure areas and zones for exclusion due to cultural heritage sensitivities. Following initial review and topographical assessment, the farm layout as presented in Attachment A is the basis on which the environmental impact assessment will be undertaken and the EIS prepared to inform NT EPA and EPBC decision-making.

Buffer recommendations in the *Land Clearing Guidelines* (NTG, 2021) will be factored into the development planning and the final proposal layout to be submitted with the *Sweetwater Stage 1 Environmental Impact Statement* which will be prepared following the initial referral processes.

Multiple existing river crossing locations are identified in this Stage 1 referral. Proposed crossing locations coincide with existing fence and track crossings predominantly utilised during the dry season through the Keep River, wherever possible. It is noted that both the Keep River and Knox Creek are ephemeral (that is, seasonally dry), with river crossings historically used for cultural and station management purposes.

To manage flood risk, the proponent will construct levee banks to manage wet season overland flows. Likely locations of levee bank release points have been identified (per Figure 4 of Attachment A), however these will be finalised following flood studies to be completed under the requirements of the EIS.

Surface and groundwater monitoring and management will ensure any risk to MNES in the Keep River is minimised.

5. Lodgement

5.1 Attachments

1.2.1 Overview of the proposed action

	Type	Name	Date	Sensitivity	Confidence
#1.	Document	Att A Appendices.zip Appendices to NT EPA Referral Report Document	14/07/2025		High
#2.	Document	ATTACH~2.PDF NT EPA Referral Report Document	15/07/2025	No	High

5.2 Declarations

Completed Referring party's declaration

The Referring party is the person preparing the information in this referral.

ABN/ACN	67605335368
Organisation name	SOUTHERN CROSS AGRI PTY LTD
Organisation address	4521 QLD
Representative's name	Andrew McCarron
Representative's job title	Grants Research and Development Manager
Phone	0407911948
Email	andrew.mccarron@aamig.com.au
Address	GPO Box 352, Brisbane QLD 4001

Check this box to indicate you have read the referral form. *

I would like to receive notifications and track the referral progress through the EPBC portal. *

By checking this box, I, **Andrew McCarron of SOUTHERN CROSS AGRI PTY LTD**, declare that to the best of my knowledge the information I have given on, or attached to this EPBC Act Referral is complete, current and correct. I understand that giving false or misleading information is a serious offence. *

I would like to receive notifications and track the referral progress through the EPBC portal. *

Completed Person proposing to take the action's declaration

The Person proposing to take the action is the individual, business, government agency or trustee that will be responsible for the proposed action.

ABN/ACN	67605335368
Organisation name	SOUTHERN CROSS AGRI PTY LTD
Organisation address	4521 QLD
Representative's name	Garry Edwards

Representative's job title	Chief Executive Officer
Phone	07 3153 8830
Email	compliance@aamig.com.au
Address	GPO Box 352 Brisbane Qld 4001

Check this box to indicate you have read the referral form. *

I would like to receive notifications and track the referral progress through the EPBC portal. *

I, **Garry Edwards of SOUTHERN CROSS AGRI PTY LTD**, declare that to the best of my knowledge the information I have given on, or attached to the EPBC Act Referral is complete, current and correct. I understand that giving false or misleading information is a serious offence. I declare that I am not taking the action on behalf or for the benefit of any other person or entity. *

I would like to receive notifications and track the referral progress through the EPBC portal. *

Completed Proposed designated proponent's declaration

The Proposed designated proponent is the individual or organisation proposed to be responsible for meeting the requirements of the EPBC Act during the assessment process, if the Minister decides that this project is a controlled action.

Same as Person proposing to take the action information.

Check this box to indicate you have read the referral form. *

I would like to receive notifications and track the referral progress through the EPBC portal. *

I, **Garry Edwards of SOUTHERN CROSS AGRI PTY LTD**, the Proposed designated proponent, consent to the designation of myself as the Proposed designated proponent for the purposes of the action described in this EPBC Act Referral. *

I would like to receive notifications and track the referral progress through the EPBC portal. *