## **EPBC Act referral**



Australian Government Department of Agriculture, Water and the Environment

Note: PDF may contain fields not relevant to your application. These fields will appear blank or unticked. Please disregard these fields.

Title of proposal	2020/8709 - Collinsville Irrigation Scheme Project
Section 1	

Summary of your proposed action

1.1 Project industry type

Agriculture and Forestry

#### 1.2 Provide a detailed description of the proposed action, including all proposed activities

The Collinsville Irrigation Scheme Project (the project) comprises the proposed development of an irrigated agricultural development area of up to 25,000 ha. Four master-planned precincts are being investigated located along the Bowen River around Collinsville. Utilising water from the proposed Urannah Dam these areas will produce high-value crops on land with high-quality soils within mining buffer areas. The agricultural suitability investigation area comprises an area in the order of 40,000 ha. The irrigation precinct would incorporate on farm infrastructure and trunk delivery infrastructure (distribution channels and distribution pipes). Subject to determination of crop types in steam weirs/pumping pools and/or off-stream storages may be required.

The project components, together with supporting ancillary infrastructure and associated works, are as follows:

 Irrigated agriculture precincts – an irrigated agricultural development area of up to 25,000 ha and associated instream (weirs and pumping pools, pump stations) and off-stream storages (water storage reservoirs), trunk delivery works and on-farm infrastructure, including channels and/or pipelines

— Associated and ancillary works and infrastructure to support the development of the project, for example, quarries and borrows, road, waterway crossings and access development and upgrades, site establishment areas, laydowns, site amenities and accommodation, services and utilities (including electricity, telecommunications). The action area and project locality is shown in Figure 1 (Attachment A).

1.3 What is the extent and location of your proposed action?

See Appendix B

1.5 Provide a brief physical description of the property on which the proposed action will take place and the location of the proposed action (e.g. proximity to major towns, or for off-shore actions, shortest distance to mainland)

The proposed project is located adjacent to the east and west banks of the Bowen River, approximately 20 km south and south-east of the township of Collinsville, within the Whitsunday Regional Council local government area in Central Queensland.

# 1.6 What is the size of the proposed action area development footprint (or work area) including disturbance footprint and avoidance footprint (if relevant)?

The project proposes to develop up to 25,000 ha of land across four precincts.

The precise area and locations are subject to change as a result of the outcomes of land suitability assessments, environmental surveys to identify and map sensitive environmental areas and consultation with landholders and other stakeholders and will be confirmed as part of the environmental impact assessment.

#### 1.7 Proposed action location

Lot - The project intersects a number of landholdings as shown in Attachment B Tenure.

## 1.8 Primary jurisdiction

1.9 Has the person proposing to take the action received any Australian Government grant funding to undertake this project?

Queensland

## 1.9.1 Provide detail

Construction of a new dam at Urannah on the Broken River was first formally proposed by government through the Queensland Irrigation and Water Supply Commission in the 1960s. Non-profit economic development agency, Bowen Collinsville Enterprise Group Inc. (BCE), has been driving investigations since the 1990s. In 2016, the Australian Government committed \$3 million of National Water Infrastructure Development Fund (NWIDF) funding for a 'detailed examination of the economic feasibility of Urannah Dam' as part of a broader suite of 39 feasibility studies for new water infrastructure across



Australia. BCE was selected to undertake a three-stage study. BCE has sub-contracted with Urannah Water Scheme Pty Ltd (UWS), a subsidiary of Bowen River Utilities Pty Ltd, to undertake the study. The preliminary business case (PBC) was completed in late 2019.

In 2019, an additional \$10 million in funding through the NWIDF was secured for the development of a detailed business case (DBC) and Environmental Impact Statement (EIS) for a proposed dam, water distribution network and master planned irrigation precinct. The Collinsville Irrigation Scheme Project is the co-recipient of the funds together with the proposed Urannah Dam and Pipelines Project as proposed by Urannah Water Scheme Pty Ltd.

1.10 Is the proposed action subject to local government planning approval?

Yes No

1.10.1 Is there a local government area and council contact for the proposal?

Yes  $\square$ No

1.11 Provide an estimated start and estimated end date for the	Start Date	01/04/2022
proposed action	End Date	01/04/2026

1.12 Provide details of the context, planning framework and state and/or local Government requirements

The Collinsville Irrigation Scheme together with the proposed Urannah Dam and Pipelines Project and Bowen Renewable Energy Hub Pumped Hydro-electric Scheme (PHES) was declared a 'coordinated project' under section 26 of the State Development and Public Works Organisation Act 1971 (Qld) on 7th May 2020 (SDPWO Act). An Initial Advice Statement (IAS) was prepared to provide information, as required under section 27AB of the SDPWO Act, to inform the Coordinator-General in the decision making process on the basis that the project is characterised by:

Complex approval requirements, including Commonwealth government, state government and local government area involvement

Strategic significance to the region and state, including diversification of the regional economy, economic and social benefits, and capital investment

Potential significant environmental effects on matters of national environmental significance (MNES), including the Great Barrier Reef World Heritage Area, threatened species and threatened ecological communities and migratory species Potential significant environmental effects on matters of state environmental significance (MSES), including regulated

vegetation, connectivity, wetlands and watercourses, protected wildlife habitat.

Assessment through an Environmental Impact Statement (EIS) is required to quantify level of impact on relevant environmental values, propose avoidance and mitigation measures for each project, and where avoidance is not possible propose appropriate offsets.

There are a number of planning instruments and government policies applicable to the project, including:

- Queensland's State Planning Policy
- North Queensland Regional Plan
- Mackay, Isaac, Whitsunday Regional Plan
- Burdekin Region Water Quality Improvement Plan 2016
- Whitsunday Regional Council Planning Scheme
- Relevant state codes under the State Development Assessment Provisions:
- State Code 9: Great Barrier Reef Wetland Protection Areas
- State Code 10: Taking or Interfering with Water
- State Code 15: Removal of Quarry Material from a Watercourse or Lake
- State Code 16: Native Vegetation Clearing
- State Code 18: Constructing or Raising Waterway Barrier Works in Fish Habitats
- State Code 22: Environmentally Relevant Activities.
- Australian and Queensland Reef 2050 Long-Term Sustainability Plan
- Northern Australia Infrastructure Facility
- Our North, Our Future: White Paper
- Australian Infrastructure Plan
- State Infrastructure Plan
- Queensland Bulk Water Opportunities Statement
- Queensland's Agricultural Strategy.

The project is generally consistent with the outcomes, strategies and policies of the above mentioned planning instruments. Further assessment will be undertaken as part of the EIS process.

The potential planning and environment approvals under state and local government legislation are detailed in Attachment C Approval requirements and include:

Material change of use of premises (change in land use) and Operational Work for reconfiguration of a lot (inundation



area and irrigation area) assessable under a local government planning scheme.

- Operational works for clearing native vegetation
- Operational works for construction of a waterway barrier work
- Operational works for taking or interfering with water in a watercourse or a dam constructed on a watercourse
- Operational work that is high impact earthworks in a wetland protection area
- Material change of use for an environmentally relevant activity
- Environmental authorities for prescribed environmentally relevant activities.

#### 1.13 Describe any public consultation that has been, is being or will be undertaken, including with Indigenous stakeholders

Community and stakeholder consultation has been targeted and conducted at a regional level as part of the feasibility studies for the project. The focus of stakeholder engagement, to date, has been on water infrastructure and potential customers of a large-scale water solution.

Consultation with the following stakeholders has been undertaken as part of the PBC:

- Coal miners, including:
- \_ **Rio Tinto**
- Glencore
- QCoal
- New Hope
- BMA
- Peabody
- Anglo American
- Stanmore
- **Fitzroy Resources**
- Indigenous leaseholders, Urannah Property Association
- Agriculturists and irrigators
- Large scale contractors
- Financiers
- Sunwater
- \_\_\_\_ Government departments in Brisbane and other regions.

Consultation was aligned with the Queensland Government's Project Assessment Framework guidelines and focused on water infrastructure and potential customers of a large-scale water solution. There was strong support for improving water security through long-term and large-scale solutions to support diversifying the economy.

Since the engagement during the PBC, additional consultation has occurred with:

- Coal miners
- Landholders, including with regard to access and acquisition
- Traditional owners, including Native Title claimants (specifically the Widi People of the Nebo Estate, Birriah People and Barada Barna People)
  - Sunwater and Powerlink
  - Bowen Chamber of Commerce
  - North Queensland Gas Pipeline (AGL)
  - Indigenous Land Corp

Applicable local, state and federal government departments, government owned corporations and agencies. Two virtual public consultation sessions have taken place and four more are scheduled over the coming months. The sessions have been widely advertised in the community and sixty local residents have participated in the two sessions. As COVID-19 restrictions ease, it is expected that there will be a hybrid of virtual and in-person public consultation sessions.

Targeted community and stakeholder consultation is ongoing and will be undertaken as part of the EIS, incorporating engagement as part of the social impact assessment and development of cultural heritage management plans and/or agreements, in accordance with the requirements under State and Commonwealth legislation.

#### 1.14 Describe any environmental impact assessments that have been or will be carried out under Commonwealth, State or Territory legislation including relevant impacts of the project

The Queensland Coordinator-General has declared the development of an irrigated agricultural precinct and associated and ancillary infrastructure to part of a 'coordinated project' requiring assessment by EIS.

On the basis of preliminary desktop reviews and assessments undertaken it is predicted that the project has potential to impact on MNES under the the Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act) and will require approval from the Commonwealth Minister for Environment.

As a controlled action it is expected that assessment by EIS is likely to be required. Assessment of the project under the bilateral agreement with the State of Queensland is considered to provide a streamlined approach and alignment of Commonwealth and State interests for MNES and MSES, respectively.



1.15 Is this action part of a staged development (or a component of a larger project)?						
	١	Yes		$\square$	No	
1.16 Is the proposed action related to other actions or proposals in the region?						
$\square$	١	Yes			No	
1.16.1 Identify the nature/scope and location of the related action (Including under the relevant legislation)						
The Collinsville Irrigation Scheme Project is related to the proposed Urannah Dam and Pipelines and PHES projects being						

proposed by Urannah Water Scheme Pty Ltd and Blue Hydro Projects Pty Ltd, respectively. The Queensland Coordinator-General has declared the proposed actions collectively as a coordinated project under the SDPWO Act and for which an EIS will be prepared. Separate EPBC Act Referrals are being prepared for the Urannah Dam and Pipelines Project and the PHES Project

The project locations are shown in .Figure 2 (Attachment A).



Section 2				
Matters of national environmental significance				
2.1 Is the proposed action likely to have any direct or indirect impact on the values of any World Heritage properties?				
Yes No				
Property				
Great Barrier Reef World Heritage Area (GBRWHA)				
Impact				
The project is located approximately 40 km inland of the GBRWHA and has the potential to indirectly impact on the world heritage values of the area. Expansion of agricultural areas has the potential to impact on the environmental values of the Bowen River, locally, and the Burdekin River downstream, its coastal ecosystems and the GBRWHA. These impacts would arise predominantly from potential: — Land clearing, and increased sediment, nutrient and pesticide discharge from agricultural activities — Changes to the hydrological regime as a result of water extraction and land development Through the expansion of agricultural activities indirect impacts, including increased pressure on wetlands to perform filtering ecosystem functions, may increase the risk of discharge increasing the levels of agri-pollutants to the GBRWHA. Determination of the nature and scale of the impact will be subject to the outcomes of the environmental impact assessment, land suitability assessment, land holder negotiations, the cropping types and mixes proposed and the identification of appropriate land use and management practices , including erosion and soil protection management. An assessment of significance will be undertaken in accordance with the Significant Impact Guidelines 1.1 – Matters of National Environmental Significance as part of the EIS				
2.1.2 Do you consider this impact to be significant?				
Yes No				
2.2 Is the proposed action likely to have any direct or indirect impact on the values of any National Heritage places?				
Place				
Great Barrier Reef (GBR)				
Impact				
The project has the potential to indirectly impact on the universal values of the GBR. Potential impacts on the GBR are discussed in section 2.1.1. An assessment of the project impacts on the National Heritage values of the GBR will be undertaken as part of the EIS for the project.				
2.2.2 Do you consider this impact to be significant?				
Yes No				
2.3 Is the proposed action likely to have any direct or indirect impact on the ecological character of a Ramsar wetland?				
2.4 Is the proposed action likely to have any direct or indirect impact on the members of any listed species or any threatened ecological community, or their habitat?				
Yes No				
Species or threatened ecological community				
Brigalow (Acacia harpophylla dominant and co-dominant) (Brigalow)				
Impact				

In Queensland, the Brigalow TEC includes areas that meet the descriptions of 16 REs. Desktop review has identified that constituent RE 11.3.1 and RE 11.12.21 are mapped (DNRME v11) for areas within the proposed irrigated agricultural development area (Figure 3 (Attachment A)) such that the TEC is considered 'likely to occur'. The diagnostic characteristics and condition thresholds of these areas will be investigated as part of the EIS and the extent to which they are impacted



determined based on the ability to avoid impacts through project design and/or minimise through the adoption of appropriate management actions.

Preliminary site walkovers indicate that areas are likely to be incorrectly mapped and where present exist in isolated, degraded (through weed infestation and grazing practices) and fragmented patches such that project impacts would not result in a significant impact on the TEC. A significance in accordance with the Significant Impact Guidelines 1.1 – Matters of National Environmental Significance will be undertaken as part of the EIS.

Notwithstanding assessment to be undertaken as part of an EIS, potential impacts include:

- Vegetation clearing and associated habitat fragmentation
- Dispersion of weeds and invasive species
- Increased pest animal activity.

#### Species or threatened ecological community

Natural grasslands of the Queensland Central Highlands and northern Fitzroy Basin (natural grassland)

#### Impact

In Queensland, the natural grassland TEC includes areas that meet the descriptions of seven REs. Desktop review has identified that constituent RE 11.4.4, RE 11.9.12 and RE 11.9.3 are mapped (DNRME v11) for areas within the proposed irrigated agricultural area (Figure 3 (Attachment A)) such that the TEC is considered 'likely to occur'.

The diagnostic characteristics and condition thresholds of these areas will be investigated as part of the EIS and the extent to which they are impacted determined based on the ability to avoid impacts through project design and/or minimise through the adoption of appropriate management actions.

Preliminary site walkovers indicate that areas are likely to be incorrectly mapped and where present exist in isolated, degraded (through weed infestation and grazing practices) and fragmented patches such that project impacts would not result in a significant impact on the TEC. A significance in accordance with the Significant Impact Guidelines 1.1 – Matters of National Environmental Significance will be undertaken as part of the EIS.

Notwithstanding assessment to be undertaken as part of an EIS, potential impacts include:

- Vegetation clearing and associated habitat fragmentation
- Dispersion of weeds and invasive species
- Increased pest animal activity.

#### Species or threatened ecological community

Semi-evergreen vine thickets of the Brigalow belt (north and south) and Nandewar bioregion (SEVT)

#### Impact

In Queensland, SEVT TEC includes areas that meet the descriptions of ten REs within the Brigalow Belt Bioregion. Desktop review has identified that constituent RE 11.8.3 is mapped (DNRME v11) is mapped for a single small area in the south-east of the proposed irrigated agricultural development areas (Figure 3 (Attachment A)).

The diagnostic characteristics and condition thresholds of this area will be investigated as part of the EIS and the extent to which it is likely to be impacted determined based on the ability to avoid impacts through project design and/or minimise through the adoption of appropriate management actions.

Preliminary site walkovers indicate that the area is likely to be incorrectly mapped and where present exists as an isolated, degraded (through weed infestation and grazing practices) and fragmented patches such that project impacts would not result in a significant impact on the TEC. A significance in accordance with the Significant Impact Guidelines 1.1 – Matters of National Environmental Significance will be undertaken as part of the EIS.

Notwithstanding assessment to be undertaken as part of an EIS, potential impacts include:

- Vegetation clearing and associated habitat fragmentation
- Dispersion of weeds and invasive species
- Increased pest animal activity.

#### Species or threatened ecological community

Geophaps scripta scripta (squatter pigeon (southern))

## Impact

The species occurs in open-forests to sparse, open-woodlands and scrub that are dominated by Eucalyptus, Corymbia and Acacia or Callitris species, remnant and regrowth within 3 km of water (DAWE 2020). Sandy areas dissected by gravel ridges, which have open and short grass cover allowing easier movement, are preferred. They nest on the ground among or under vegetation. Squatter pigeon (southern) is historically recorded within the project area and confirmed from locations during a preliminary site walk over.



The composition and condition of squatter pigeon habitat will be investigated as part of the EIS and the extent to which it is likely to be impacted determined based on the ability to avoid impacts through project design and/or minimise through the adoption of appropriate management actions. A significance in accordance with the Significant Impact Guidelines 1.1 – Matters of National Environmental Significance will be undertaken as part of the EIS.

Notwithstanding assessment to be undertaken as part of an EIS, potential impacts include:

- Vegetation clearing (loss of habitat) and associated habitat fragmentation

- Injury and mortality as a result of increased traffic and people movements within habitat areas

— Dispersion of weeds and invasive species leading to changes in abundance and availability of foraging habitat and restriction of ground-level movement

Increased predation through increased activity from pest animals such as dogs, foxes, cats and other predatory species due to artificial water sources and increased waste material presence

— Air, noise, vibration and dust pollution resulted in disturbance and degradation of habitat.

#### Species or threatened ecological community

Petauroides volans minor (northern greater glider)

#### Impact

This species is largely restricted to eucalypt forests and woodlands and is typically found in taller, montane, moist eucalypt forests with relatively old trees and abundant hollows (DEE, 2016, DAWE 2020). Modelling suggests that they require native forest patches of at least 160 km2 to maintain viable populations (Eyre 2002).

Essential habitat for the species is mapped for an area adjacent to the Bowen River within the proposed development area. The composition and condition of the habitat will be investigated as part of the EIS and the extent to which it is likely to be impacted determined based on the ability to avoid impacts through project design and/or minimise through the adoption of appropriate management actions. Given the proximity of the habitat to the Bowen River and the necessary riparian buffers applied to the irrigated areas it is unlikely that the project would have a significant impact on northern greater glider habitat at this location. A significance in accordance with the Significant Impact Guidelines 1.1 – Matters of National Environmental Significance will be undertaken as part of the EIS.

Notwithstanding assessment to be undertaken as part of an EIS, potential impacts include:

- Vegetation clearing (loss of habitat) and associated habitat fragmentation

— Injury and mortality as a result of clearing, entanglement on fences and increased traffic and people movements within habitat areas

— Dispersion or control of weeds and invasive species leading to changes in abundance and availability of foraging habitat

Increased predation through increased activity from pest animals such as dogs, foxes, cats and other predatory species due to artificial water sources and increased waste presence

— Air, noise, vibration and dust pollution resulting in disturbance and degradation of habitat.

#### Species or threatened ecological community

Phascolarctos cinereus (koala)

#### Impact

Within the region, koalas occur in sub-humid Eucalyptus dominated forests and woodlands in riparian and non-riparian environments, and some Acacia dominated forests and woodlands in non-riparian environments (DAWE 2020). A preliminary site walkover observed koala faecal pellets and scratches and foraging habitat was recorded in woodland habitats. The koala is historically recorded for the area.

The composition and condition of the habitat will be investigated as part of the EIS and the extent to which it is likely to be impacted determined based on the ability to avoid impacts through project design and/or minimise through the adoption of appropriate management actions. Much of the development area is subject to historic land clearing activities and is used for grazing, including within mining buffer areas. Large intact woodland areas are likely retained in riparian areas that would be retained. A significance of impact assessment in accordance with the Significant Impact Guidelines 1.1 – Matters of National Environmental Significance will be undertaken as part of the EIS.

The potential project impact on this species includes:

Vegetation clearing (loss of habitat) and associated habitat fragmentation

- Injury and mortality as a result of clearing, entanglement on fences and increased traffic and people movements within habitat areas

Increased predation through increased activity from pest animals such as dogs, foxes, cats and other predatory species due to artificial water sources and increased waste presence.



#### Species or threatened ecological community

Eucalyptus raveretiana (black ironbox)

#### Impact

Black ironbox occurs on banks of creeks, rivers and other watercourses, on clayey or loamy soil and in areas of remnant vegetation. The species is historically recorded and individuals have been observed within the proposed project area.

Much of the development area is subject to historic land clearing activities and is used for grazing, including within mining buffer areas. Large intact areas of remnant vegetation are likely retained in riparian areas that would be retained such that it is unlikely that the project would have a significant impact on the species or its habitat. A significance in accordance with the Significant Impact Guidelines 1.1 – Matters of National Environmental Significance will be undertaken as part of the EIS. The potential project impact on this species includes:

- Vegetation clearing (loss of habitat) and associated habitat fragmentation
- Dispersion of weeds and invasive species
- Land management practices increasing stream bank erosion.

#### Species or threatened ecological community

Denisonia maculate (ornamental snake)

#### Impact

The species is known to prefer brigalow (Acacia harpophylla), gidgee (Acacia cambagei), blackwood (Acacia argyrodendron) woodlands and open forests associated with moist areas, particularly gilgai mounds and depressions in REs on landzone 4, but also lake margins and wetlands (DEE, 2019). No REs on landzone 4 are mapped for the project area, however, essential habitat is mapped for the species along Rosella Creek.

The composition and condition of the habitat will be investigated as part of the EIS and the extent to which it is likely to be impacted determined based on the ability to avoid impacts through project design and/or minimise through the adoption of appropriate management actions. Much of the development area is subject to historic land clearing activities and is used for grazing, including within mining buffer areas. Large intact areas are retained in riparian areas and are likely to remain as part of the project development such that it is unlikely that the project would have a significant impact on the species or its habitat. A significance in accordance with the Significant Impact Guidelines 1.1 – Matters of National Environmental Significance will be undertaken as part of the EIS.

The potential project impact on this species includes:

- Vegetation clearing (loss of habitat) and associated habitat fragmentation
- Vegetation clearing (loss of habitat)
- Injury and mortality as a result of clearing, and increased traffic and people movements within habitat areas
- Habitat degradation through changed land use practices resulting in erosion, increased dispersion of weeds and invasive species and increased pest animal activity
  - Increased pest animal activity resulting in competition for food sources.

#### Species or threatened ecological community

Other species

#### Impact

Other flora and fauna species listed as threatened under the EPBC Act may occur within the project area and will be assessed as part of the EIS.

#### 2.4.2 Do you consider this impact to be significant?

🗹 Yes 🗌 No

2.5 Is the proposed action likely to have any direct or indirect impact on the members of any listed migratory species or their habitat?

🗹 Yes 🗌 No

Migratory species

Crocodylus porosus (Estuarine crocodile)

Impact

In Queensland the Estuarine Crocodile inhabits reef, coastal and inland waterways from Gladstone on the east coast, throughout the Cape York Peninsula and west to the Queensland-Northern Territory border (DAWE 2020). The species has



not been historically recorded within the desktop search extent, however the species has a broad distribution and can occur over a broad range of habitats consistent with those across the study area

A significance in accordance with the Significant Impact Guidelines 1.1 – Matters of National Environmental Significance will be undertaken as part of the EIS.

The potential project impact on this species includes:

Vegetation clearing (loss of habitat) and associated habitat fragmentation

— Injury and mortality as a result of clearing and increased traffic and people movements within habitat areas

— Dispersion or control of weeds and invasive species during construction leading to changes in abundance and availability of foraging habitat and restriction of ground-level movement

Increased predation during construction and operation through increases in dogs, foxes, cats and other predatory species due to artificial water sources and increased waste material

— Air, noise, vibration and dust pollution resulting in disturbance and degradation of habitat.

#### Migratory species

Cuculus optatus (Oriental cuckoo)

#### Impact

The Oriental cuckoo inhabits coastal regions across northern and eastern Australia, as well as offshore islands (DAWE 2020). The Species utilises a range of vegetated habitats, including monsoon rainforests, wet sclerophyll forests, open woodlands and along the edges of forests (DAWE 2020). Preferred habitat in the form of Eucalypt forest and woodlands were recorded as scattered patches within the irrigation area and constitute low value habitat for the species. Although the species is an uncommon migrant to Queensland coastal areas, the species has been historically recorded within the desktop search area.

A significance in accordance with the Significant Impact Guidelines 1.1 – Matters of National Environmental Significance will be undertaken as part of the EIS.

Notwithstanding assessment to be undertaken as part of an EIS, potential impacts include:

Vegetation clearing (loss of habitat and associated habitat fragmentation

Injury and mortality as a result of increased traffic and people movements within habitat areas

— Dispersion of weeds and invasive species leading to changes in abundance and availability of foraging habitat and restriction of ground-level movement

Increased predation during through increased activity from pest animals such as dogs, foxes, cats and other predatory species due to artificial water sources and increased waste material presence

#### **Migratory species**

Myiagra cyanoleuca (Satin flycatcher)

#### Impact

In summer the species migrates to southern Australia to breed, before migrating north in winter to Queensland and further afield. The species inhabits eucalypt forests and woodlands and has been recorded within the desktop study area (Precinct A). The species has the potential to occur in riparian habitats throughout the study area.

A significance in accordance with the Significant Impact Guidelines 1.1 – Matters of National Environmental Significance will be undertaken as part of the EIS.

Notwithstanding assessment to be undertaken as part of an EIS, potential impacts include:

- Vegetation clearing (loss of habitat and associated habitat fragmentation
- Injury and mortality as a result of increased traffic and people movements within habitat areas

— Dispersion of weeds and invasive species leading to changes in abundance and availability of foraging habitat and restriction of ground-level movement

Increased predation during through increased activity from pest animals such as dogs, foxes, cats and other predatory species due to artificial water sources and increased waste material presence

## 2.5.2 Do you consider this impact to be significant?

🗌 Yes 🗹 No



2.6 Is the proposed action to be undertaken in a marine environment (outside Commonwealth marine areas)?				
	Yes	S	No	
2.7 ls	2.7 Is the proposed action likely to be taken on or near Commonwealth land?			
	Yes	$\mathbf{\nabla}$	No	
2.8 ls	s the pro	posed a	ction	taking place in the Great Barrier Reef Marine Park?
	Yes	$\mathbf{\nabla}$	No	
2.9 ls	the pro	posed a	ction	likely to have any direct or indirect impact on a water resource from coal seam gas or large coal
	iy ueve		ſ	
	Yes	${\bf \bigtriangledown}$	No	
2.10	ls the pr	roposed	actio	n a nuclear action?
	Yes	$\mathbf{\nabla}$	No	
2.11	ls the pr	roposed	actio	n to be taken by a Commonwealth agency?
	Yes	S	No	
2.12 Is the proposed action to be undertaken in a Commonwealth Heritage place overseas?				
	Yes	S	No	
2.13 Is the proposed action likely to have any direct or indirect impact on any part of the environment in the Commonwealth marine area?				
	Yes	V	No	



#### Section 3 Description of the project area 3.1 Describe the flora and fauna relevant to the project area A desktop review was undertaken using publically and freely available State and Commonwealth databases together with a preliminary site walkover to identify flora and fauna values present within the project area. A preliminary likelihood of occurrence assessment has been undertaken for the project (Attachment E), with the species listed below identified as likely or known to occur. Threated ecological communities Brigalow (Acacia harpophylla dominant and co-dominant) Natural grasslands of the Queensland Central Highlands and northern Fitzroy Basin Semi-evergreen vine thickets of the Brigalow Belt (North and South) and Nandewar Bioregions Flora and fauna Birds Squatter pigeon (southern) (vulnerable) Mammals Northern greater glider (vulnerable) Koala (vulnerable) Plants Black ironbox (vulnerable) Reptiles Ornamental snake (vulnerable) Migratory species Crocodylus porosus (salt-water crocodile) Cuculus optatus (oriental cuckoo) Myiagra cyanoleuca (satin flycatcher) Restricted invasive species Weeds of national significance known to occur within the project area include: Cryposternum grandiflora (rubber vine) Parkinsonia aculeate (parkinsonian) Parthenium hysterophorus (parthenium weed) Vachellia nilotica (prickly acacia) Other prohibited and/or restricted invasive plants under the Queensland Biosecurity Act 2014 include: Zizphus mauritiana (Chinese apple) is isolated to a few areas Harrisia martini (Martin applecactus) Opuntia tomentosa (velvety tree pear) Opuntia stricta (common prickly pear). Feral animals predicted and/or known and likley to occur include: Rhinella marinma (cane toad), Canis lupus (domestic dog), Felis catus (domestic cat), Cervus timoriensis (rusa deer), Oryctolagus cuniculus (European rabbit), Sus scrofa (feral pig), Vulpes vulpes (red fox) and Canis lupus familiaris (wild dog). 3.2 Describe the hydrology relevant to the project area (including water flows)

The Burdekin Basin is the second-largest river basin in Australia; it has the largest mean annual discharge (8,327,681 ML mean annual flow at Clare gauge 1976–2016) and is tributary to the GBRWHA. The waterways in the basin vary from largely sandy, dry ephemeral creek systems to permanently flowing clear-water rivers and creeks originating in mountain rainforest.

- The Burdekin drainage basin covers an area of approximately 130,109 km<sup>2</sup> and comprises four major sub-basins:
- Upper Burdekin 36,244.7 km<sup>2</sup>
- Suttor 73,935.8 km<sup>2</sup>
- Bowen 9,451.6 km<sup>2</sup>
- Lower Burdekin 10,477.4 km<sup>2</sup>.

The project is located within Bowen River sub-catchment of the Bowen sub-basin. Past assessment of groundwater in the Bowen sub-basin is generally localised to irrigation, mining, or domestic use areas. The Broken River, joins the Bowen River at Bowen Weir, 35 km southeast of Collinsville. The Bowen River, where the project is located, joins the Burdekin River at Blue Valley Weir and the Burdekin River then flows north and east into the GBR. There are five water storages along the Bowen/Broken River, with a total storage capacity of approximately 230,000 ML. The largest of the storages is Eungella Dam, which has a capacity of 112,400 ML and is on the Broken River upstream of the Collinsville Irrigation Scheme Project.

The Broken River and its tributaries are major contributors to the flow of water and water quality into the Bowen and lower Burdekin Rivers. There is a substantial rainfall gradient in the sub-catchment, from more than 4,000 mm a year at the top of Clarke Range (which encompasses Eungella National Park and is upstream of the Collinsville Irrigation Scheme), to less than 600 mm a year near the junction of the Bowen and Broken Rivers. The mean annual rainfall at Urannah is 749 mm.

The Burdekin Basin is heavily influenced by variable inter-annual rainfall, with droughts and tropical cyclones (and



associated flooding) approximately once every four years (SMEC, 2019a).

The mean annual discharge of the Bowen River upstream of its confluence with the Broken River is 105,278 ML, but downstream of the confluence at the Pump Station Gauge the mean annual discharge is 797,566 ML. The mean discharge of the Broken River at Urannah is 355,712 ML. No months with zero discharge have been recorded at Urannah. The highest monthly discharge recorded at Urannah is 729,948 ML in February 1991 (records from 1962- 1998).

There are three major watercourses (Bowen River, Pelican Creek, and Rosella Creek) and a variety of minor waterways which intersect with the project as shown in Figure 4 (Attachment A).

Hydrological and hydraulic assessments will be undertaken as part of the EIS to determine existing flows of the waterways within the project area.

#### 3.3 Describe the soil and vegetation characteristics relevant to the project area

#### Soils

The soils in the Burdekin region are varied, with extensive areas of moderately productive but fairly erodible red duplex soils, widespread highly productive black and red clays derived from basalt, and large areas of poor to moderately fertile sands and earths.

Large areas also have highly erodible dispersive soils. The Bowen sub-catchments have the highest rate of erosion due to exposed subsoils, indicating a significant loss of topsoil into the waterways as indicated by tracing data (Lewis et al., 2015). Key soil information for the project includes:

Clay-heavy, cracking or non-structured soils are dominant in the project area

 The project area is primarily classified as Class A or Class B agricultural land under the Regional Planning Interests Act 2014.

Soil suitability assessment and land use capability analysis is currently underway to inform the proposed irrigation development locations and cropping regimes. Environmental assessment will inform constraints and opportunities associated with the proposed irrigation development design.

Vegetation

The predominant vegetation characteristics of the region are typical of grazed native vegetation, with some conservation areas bordering proposed project areas maintaining more established vegetation. Large areas of land have also been cleared within the proposed irrigation precinct.

Investigations of landscape vegetation will be undertaken within the EIS as relevant and across targeted areas to identify vegetation characteristics within the project area.

## 3.4 Describe any outstanding natural features and/or any other important or unique values relevant to the project area

The Birralee – Pelican Creek Aggregation (QLD198) is a nationally important wetland mapped for 15 km of the Bowen River where it traverses the proposed Collinsville Irrigation Scheme as shown in Figure 5 (Attachment A). The Burdekin-Bowen Junction and Blue Valley Weir Aggregation is located downstream of the project and comprises

segments of the Burdekin and Bowen rivers and their junction, including the impoundment of the Blue Valley Weir. No wetlands of high ecological significance are mapped for the project. No wetlands or watercourses in high ecological

value waters are mapped for the project area.

## 3.5 Describe the status of native vegetation relevant to the project area

Threatened ecological communities

Four TECs listed under the EPBC Act are predicted to occur within the project area from the EPBC Act protected matters search.

A preliminary likelihood of occurrence assessment has been undertaken for the project as shown in Attachment E. The likelihood of occurrence found that three TECs have constituent REs mapped within the project area as shown Figure 3 (Attachment A).

Ecology surveys will be undertaken as part of the EIS to confirm presence or absence of TECs within the project area. Remnant vegetation/regional ecosystems

While large areas across the southern portion of the proposed project area are historically cleared and are not mapped as containing remnant vegetation and noting that most land use relates to native grazing land, remnant vegetation does persist, particularly within riparian fringes along watercourses.

Remnant vegetation is predominantly mapped as Category B regulated vegetation comprising Endangered, Of Concern and Least Concern RE. Small, scattered polygons of high value regrowth (Category C regulated vegetation) is mapped. Category R regulated high value regrowth vegetation is mapped for creek and drainage lines. In order to avoid and minimise impacts on remnant vegetation associated with agricultural development the following are proposed:

Areas mapped as non-remnant vegetation will be targeted as priority

High value regrowth vegetation will not be cleared for the purposes of irrigated agriculture.

REs located in the key project component footprints are shown in Figure 6 (Attachment A).

Ecology surveys will be undertaken as part of the EIS to verify regulated vegetation in the project area.



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

The topography of the Burdekin region is highly variable including mountain ranges, low lying hills and flood plains. The Clarke Range, which forms part of the Great Dividing Range, is situated to the east of the project area. The land to the west of the Clarke Range gradually decreases in topographic variability, with the project located primarily within an expansive lowland plain.

The project area is located upon the alluvial plains of the Burdekin, Broken and Bowen River systems. Whilst the surrounding landscape contains rugged mountain ranges, the majority of the survey area is flat and experiences little variations in elevation ranging from 100 m to up to 250 m.

#### 3.7 Describe the current condition of the environment relevant to the project area

The project area extends through landscapes predominantly identified as cattle grazing in native vegetation and has at some time in the past experienced broad scale clearing. The region has established agriculture and mining activities and is sparsely populated. Project areas within the irrigation precinct propose to utilise land with higher quality soils within mining lease buffer areas.

Top soil is limited in many regions of the project area, with high levels of soil erosion due to hill slope and gully erosion. This also influences water quality with large amounts of fine sediment, primarily from grazing lands, affecting aquatic environments within the Burdekin Basin.

Within the Burdekin Basin, major sources of sediment appear to be affecting water quality; originating from hill slope erosion along with gully and stream bank erosion. The Burdekin Region Water Quality Improvement Plan 2016 notes that the bulk of fine sediment delivered from the Burdekin Basin to the Great Barrier Reef is derived from a small portion of the basin, primarily the Bowen, Broken, Bogie and Upper Burdekin catchments, with a large proportion of this load from grazing lands. The Burdekin Falls Dam traps a large portion of the course particles and some of the fine particles, however the Bowen

Broken Bogie catchments contribute the highest loads of fine material due to gully erosion.

Water quality assessments, including water quality monitoring necessary, will be undertaken as part of the EIS to determine existing water quality characteristics to inform the assessment undertaken as part of the EIS.

Invasive fauna is abundant throughout the route including the cane toad, wild dog, feral cat, brown hare, rabbit, feral pig, red fox and other species.

Site investigations and data analysis will be undertaken within the EIS to confirm relevant environmental conditions.

#### 3.8 Describe any Commonwealth Heritage places or other places recognised as having heritage values relevant to the project

According to the National Heritage Register, no areas or objects are identified within 5 km of the project area. European cultural heritage sites, as relevant, will be investigated as part of the EIS to determine areas of importance within the project area.

#### 3.9 Describe any Indigenous heritage values relevant to the project area

Searches of the Queensland DATSIP cultural heritage database identified multiple recorded Aboriginal cultural heritage sites or registered places within the project area. Additionally, high risk landscape features such as ephemeral water sources are commonly identified as places of importance to Aboriginal people and may include the Bowen River. Over such an extensive area, there is a high chance of Indigenous cultural heritage being present.

Aboriginal cultural heritage sites have been recorded in the surrounding region including:

- Rock shelters containing paintings and / or cultural deposits
- Camp sites and openstone artefact scatters
- Isolated stone artefacts
- Quarry extraction sites
- Scarred trees
- Native wells and significant water sources
- Walking tracks
- Burial places (pre and post European settlement)
- Ceremonial sites
  - Story places and / or landforms of Aboriginal cultural sensitivity

— Culturally-significant landscape features (waterholes, old growth vegetation, habitat areas, bush tucker, bush medicine, etc.)

Post-contact story places and camps.

To date the Birriah People have been identified as potentially having an interest in the project area, subject to the final project footprint being determined .

Aboriginal cultural heritage assessments will be undertaken within the EIS to identify cultural heritage values within the project area. Unless cultural heritage is included in a relevant native title agreement, a Cultural Heritage Management Plan will be developed in accordance with the provisions of the Aboriginal Cultural Heritage Act 2003.



Potentially impacted properties are held under a variety of tenure arrangements including freehold, reserve or leasehold tenure.

There are a number of exploration permits which exist over the broader area around the proposed project site. These include exploration permits for coal, minerals and petroleum.

Tenure types and extents within the project boundary are shown in Figure 7 (Attachment A), with a list of all tenure types within the project area shown in Attachment B Tenure.

#### 3.11 Describe any existing or any proposed uses relevant to the project area

#### Land use

The project area is typical of a rural setting in terms of existing infrastructure, including homesteads, local roads and agricultural properties with associated peri-urban development within small towns at Scottsville and Collinsville. Mining activity is concentrated around Collinsville to the north of the project area and further south towards Moranbah.

Land uses within the project area are shown Figure 8 (Attachment A).

Whitehaven WS Pty Ltd (Whitehaven Coal) proposed to develop the Winchester South Project, a greenfield metallurgical coal mine south-east of Moranbah. An EIS is currently being prepared. A number of proposed transport corridors linking mining activities in the south to the Port of Abbot Point are proximal to the project area.

Building Queensland is leading the development of the Burdekin Falls Dam Raising Project's detailed business case in partnership with Sunwater Limited. The business case (including environmental assessment) is investigating long-term water supply requirements and options for raising the Burdekin Falls Dam wall. The existing Burdekin Falls Dam is located on the Burdekin River. The Bowen River is a tributary to the Burdekin River with the confluence downstream of the Burdekin Falls Dam and south west of the proposed irrigation scheme. The Water Plan (Burdekin Basin) envisaged a number of development scenarios including the development of Urannah Dam and raising BFD, both in isolation and combined, indicating that the Government envisaged a scenario under which both development options would be required to meet regional water demands.

Urban areas

There are several small towns within the wider project area, which have largely been established to support resource activities that occur within these areas. These include:

Scottsville

— Glenden

Collinsville.

Infrastructure

The existing Bowen Weir, located approximately 35.6 km downstream of the dam site, will be utilised within the water distribution component of the project. Additional infrastructure surrounding the Bowen Weir will allow distribution and servicing of the irrigation precinct and customers on the left and right banks of the Bowen River.

There are several existing pipelines which run adjacent to or within close proximity to the proposed water distribution network of the project, including approximately eight pump stations along these pipelines. The existing pipelines include: — Sunwater – BMP

- Sunwater - EWP/ eastern extension.

As shown in Figure 9 (Attachment A), there is an extensive network of Ergon lower voltage pole mounted distribution substations scattered across the project area as well as fewer higher voltage ones.

Powerlink's 275KV transmission line between Collinsville and Nebo runs north to south along the western edge of the project boundary.

There are four other water storages within proximity to the project area, including:

- Eungella Dam
- GOSS
- Bowen River Weir
- Peter Faust Dam.

Key infrastructure networks within the project area are shown Figure 9 (Attachment A) and will be detailed further in the EIS with consideration of the utility providers and local government guidelines and policies.



## Section 4

#### Measures to avoid or reduce impacts

4.1 Describe the measures you will undertake to avoid or reduce impact from your proposed action

The environmental management and mitigation measures required for the project will be determined during the EIS and developed in consultation with relevant authorities and in accordance with legislative, policy and industry guidelines. A number of tools will be developed and implemented, including:

— Environmental management framework

- Environmental management plans
- Environmental, social and cultural values specific management plans.

The project has adopted the principles of the mitigation hierarchy, whereby impacts are addressed through the preferential order of avoidance, minimisation and compensated (offset). For the impacts identified within Section 2 of this referral, the following mitigation strategies are proposed.

Water quality

The GBRWHA and GBR may be indirectly impacted through potential impacts to water quality associated with land use change. A water quality monitoring program has commenced with 12 sites sampled at least monthly (subject to rainfall events). Data will be supplemented with freely available and Queensland Government supplied gauge data. Water quality data, together with soils data and the outcomes of a land suitability assessment will be used to develop a water quality model to predict impacts associated with irrigated farming conditions and end of system loads relevant to the Reef Plan 2050. The model will facilitate scenario testing for best management practice cropping techniques. As necessary, additional protection and enhancement measures will be applied (artificial wetlands, gully erosion protection, etc.).

Water extraction will be guided by the requirements of the Queensland Water Act 2000 and provisions of the Water Plan (Burdekin Basin) 2007, including maintenance of environmental flows within the Bowen River and into downstream reaches of the Burdekin River.

Vegetation clearing, associated habitat fragmentation and habitat loss

Design aspects to minimise environmental impacts, where possible are under consideration. In order to avoid and minimise impacts on remnant vegetation associated with agricultural development the following are proposed:

- Areas mapped as non-remnant vegetation will be targeted as priority
- High value regrowth vegetation will not be cleared for the purposes of irrigated agriculture

— Buffers will be established and vegetation setbacks defined from waterways as necessary and applicable. An Environmental Management Plan (EMP), including a Flora and Fauna Management Plan (FFMP), Vegetation Management Plan and Bushfire Management Plan, will be prepared to detail actions for the protection of the natural environment. The EMP will include actions to minimise risks of unnecessary vegetation clearing, habitat fragmentation and loss, including limiting clearing to the smallest area practicable, and prioritise existing cleared and disturbed areas for infrastructure, and temporary works.

Fauna Injury and mortality

An EMP will be developed, including a FFMP, Traffic Management Plan (TMP) and Workforce Management Plan, and implemented to detail actions and procedures for the protection of terrestrial environments. Impacts to fauna will be managed in consideration of the actions within approved Recovery Plans and a qualified fauna spotter catcher will be onsite during construction to relocate individuals. Sequential clearing will be undertaken allowing fauna time to move out of the area. Enforcing speed limits and restricting night works will be considered.

Design options are being considered to minimise fauna injury and mortality during operation, through appropriate infrastructure to safely facilitate fish passage.

Dispersion or control of weeds and invasive species

An EMP will be developed, including a Weed and Pest Management Plan, and implemented to detail actions and procedures for the protection of the terrestrial environments. The EMP will include actions to minimise the spread of weeds and invasive species through both human and vehicle controls. Ongoing implementation of weed and pest control will be required and undertaken to ensure any outbreaks are controlled into operations.

Increased predation during construction and operation

An EMP will be developed, including a Weed and Pest Management Plan, Vegetation Management Plan (including revegetation and rehabilitation) and Waste Management Plan, and implemented to detail actions and procedures for the protection of the terrestrial environments. The EMP will include actions to minimise the attraction of predator species and limit impact to MNES species habitat.

Air, noise, vibration and dust pollution

An EMP will be developed, including an Air Quality (dust) Management Plan, Noise and Vibration Management Plan and TMP, and implemented to detail actions and procedures for the protection of the terrestrial environments. The EMP will include actions to minimise risks of unnecessary air, noise, vibration and dust pollution, wherever possible.

4.2 For matters protected by the EPBC Act that may be affected by the proposed action, describe the proposed environmental outcomes to be achieved

Environmental outcomes sought for the project include:



Avoid as far as practicable impacts on MNES and MSES

• Where avoidance is not possible, minimise and mitigate impacts through the development and implementation of management actions, including development of management plans and undertaking monitoring programs

• Promote the use of best management practices for agricultural activities that conserve water and minimise environmental harm

• Protect and restore habitat, including riparian areas and wetlands, where necessary.

Management plans for MNES will be prepared as defined in Section 4.1 to manage impacts during construction and operation of the project. The project is expected to comply with reef protection regulations without exemption and provides a clear opportunity for agricultural producers within the proposed irrigation area to improve land practices and efficiencies. This will not only allow for responsible resource use and potentially lowered operation costs but also improvement of water quality and overall GBR health. In accordance with the Environmental Protection Regulation 2019, new or expanded commercial cropping and horticulture activities in the Burdekin region will require an environmental authority. Minimum practice agricultural standards relating to fertiliser application, maintaining ground cover, measures to limit soil erosion and record keeping, will apply.

Desktop reviews of environmental constraints and opportunities are being used to inform project design and route and site selection. This will be further supported by outcomes of a site survey and field campaign. The hierarchy approach of avoid, minimise and/or mitigate and manage will be utilised. Where impacts cannot be avoided and significant residual impacts are predicted offsets will be proposed.

Based on currently available information it is likely that residual impacts on MNES will persist after avoidance, mitigation and management measures are applied. Offsets will be proposed in accordance with the Australian Government's EPBC Act Environmental Offsets Policy.



Section 5							
Cone	Conclusion on the likelihood of significant impacts						
5.1 Y	5.1 You indicated the below ticked items to be of significant impact and therefore you consider the action to be a controlled						
actio	action						
$\mathbf{\nabla}$	World Heritage properties						
$\mathbf{\nabla}$	National Heritage places						
	Wetlands of international importance (declared Ramsar wetlands)						
$\boxtimes$	Listed threatened species or any threatened ecological community						
	Listed migratory species						
	Marine environment outside Commonwealth marine areas						
	Protection of the environment from actions involving Commonwealth land						
	Great Barrier Reef Marine Park						
	A water resource, in relation to coal seam gas development and large coal mining development						
	Protection of the environment from nuclear actions						
	Protection of the environment from Commonwealth actions						
	Commonwealth Heritage places overseas						
	Commonwealth marine areas						
5.2 lf	no significant matters are identified, provide the key reasons why you think the proposed action is not likely to have a						
significant impact on a matter protected under the EPBC Act and therefore not a controlled action							
Not applicable.							



Section 6					
Environmental record of the person proposing to take the action					
6.1 Does the person taking the action have a satisfactory record of responsible environmental management? Explain in further detail					
Collinsville Irrigation Scheme Pty Ltd (or its subsidiaries) has not had any prosecutions for environmental harm under either Commonwealth or State legislation.					
6.2 Provide details of any past or present proceedings under a Commonwealth, State or Territory law for the protection of the environment or the conservation and sustainable use of natural resources against either (a) the person proposing to take the action or, (b) if a permit has been applied for in relation to the action – the person making the application					
There are no proceedings against Collinsville Irrigation Scheme Pty Ltd under either Commonwealth or State legislation.					
6.3 If it is a corporation undertaking the action will the action be taken in accordance with the corporation's environmental policy and framework?					
Yes No					
6.3.1 If the person taking the action is a corporation, provide details of the corporation's environmental policy and planning framework					
Collinsville Irrigation Scheme Pty Ltd as project developer operates under a Project Delivery Management Plan, and maintains a Risk Management Plan and a comprehensive risk register for the project. The risk assessment process will evolve as the project moves from planning and design into construction, commissioning and operations. Environmental hazards and risks will be included and updates adopted. Construction and operational management plans will be incorporated into project delivery programs. Further, the project has adopted a Corridor and Land Access Management Plan as part of its corporate compliance framework.					
6.4 Has the person taking the action previously referred an action under the EPBC Act, or been responsible for undertaking an action referred under the EPBC Act?					
Yes  No					



Section 7
Information sources
Reference source
BCE (2018). Urannah Water Scheme Draft Preliminary Business Case. Queensland Government, Brisbane.
Reliability
High
Uncertainties
None
Reference source
BCE (2019). Urannah Water Scheme Final Preliminary Business Case. Queensland Government, Brisbane.
Reliability
High
Uncertainties
None
Reference source
Department of the Environment. (2019). SPRAT EPBC Migratory Lists in Species Profile and Threats Database, Department of the Environment, Canberra. Available from: http://www.environment.gov.au/sprat.
Reliability
High
Uncertainties
None
Reference source
GHD (2020) Bowen River Utilities Draft Initial Advice Statement. Prepared for BRU.
Reliability
High
Uncertainties
None
Reference source
SMEC. (2019f). Urannah Dam Feasibility Study. Review of Environmental Factors. Prepared for Huston International Consulting (HIC) Services Pty Ltd.
Reliability
High
Uncertainties
None



Section 8						
Proposed alternatives						
Do you have any feasible alternatives to taking the proposed action?						
Yes 🗹 No						



Section 9				
Person proposing the action				
9.1.1 Is the person proposing the action a member of an organisation?				
Organisation				
Organisation name	COLLINSVILLE IRRIGATION SCHEME PTY LTD			
Business name				
ABN	49641470144			
ACN				
Business address	145 Ann St, Brisbane City, 4000, QLD, Australia			
Postal address				
Main Phone number	1800 269 368			
Fax				
Primary email address	commercial@bowenutilities.com			
Secondary email address				
9.1.2 I qualify for exemption from fees under section 520(4C)(e)(v) of the	e EPBC Act because I am:			
1 1 2 2 I would like to apply for a waiver of full or partial foca under Sah	adula 1 5 91 A of the EBBC Regulations *			
Yes No	edule 1, 3.21A of the LFBC negulations			
9.1.3 Contact				
First name	Alexander			
Last name	McNab			
Job title	CEO			
Phone	0414 495 181			
Mobile	0414 495 181			
Fax				
Email	commercial@bowenutilities.com			
Primary address	145 Ann St, Brisbane City, 4000, QLD, Australia			
Address				
Declaration: Person proposing the action				
Alexa dear Dianea, Kaith MCNeb	dealars that			
to the best of my knowledge the information I have given on or attache	d to the EPBC Act Referral is complete current and			
correct. I understand that giving false or misleading information is a se	rious offence. I declare that I am not taking the action on			
behalf or for the benefit of any other person or entity.	······································			
Signature: a . m cm b Date: 23/6/2020.				
Alexander Duncan Keith McNab	the narcon			
proposing the action, consent to the designation of <u>Collinsville Irrigation Scheme Pty Ltd</u> as the proponent for the purposes of the action described in this EPBC Act Referral.				
Signature: U manuf Date: 23/6/2020				



Proposed designated proponent					
9.2.1 Is the proposed designated proponent a member of an organisation?					
Yes No					
Organisation					
Organisation name	COLLINSVILLE IRRIGATION SCHEME PTY LTD				
Business name	•				
ABN	49641470144				
ACN					
Business address	145 Ann St, Brisbane City, 4000, QLD, Australia				
Postal address					
Main Phone number	1800 269 368				
Fax					
Primary email address	commercial@bowenutilities.com				
Secondary email address					
9.2.2 Contact					
First name	Alexander				
Last name	McNab				
Job title	CEO				
Phone	0414 495 181				
Mobile	0414 495 181				
Fax					
Email	commercial@bowenutilities.com				
Primary address	145 Ann St, Brisbane City, 4000, QLD, Australia				
Address					
Declaration: Proposed Designated Proponent					
1. Alexander Duncan Keith McNab the					
proposed designated proponent, consent to the designation of					
myself as the proponent for the purposes of the action described in this EPBC Act Referral.					
Signature: $a \cdot m  cm h$ . Date: $\frac{23}{6}/2020$ .					



Referring party (person preparing the information)					
9.3.1 Is the referring party (person preparing the information) a member of an organisation?					
Yes No					
Organisation					
Organisation name	GHD PTY LTD				
Business name					
ABN	39008488373				
ACN					
Business address	145 Ann St, Brisbane City, 4000, QLD, Australia				
Postal address					
Main Phone number	07 3316 3000				
Fax					
Primary email address	Geraldine.squires@ghd.com				
Secondary email address					
9.3.2 Contact					
First name	Geraldine				
Last name	Squires				
Job title	Technical Director – Environmental Assessment				
Phone	07 3316 4396				
Mobile					
Fax					
Email	Geraldine.squires@ghd.com				
Primary address	145 Ann St, Brisbane City, 4000, QLD, Australia				
Address					
Declaration: Referring party (person preparing the information) I. Geraldine Squires , 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.					
Signature:					



Appendix A	
Attachment	
Document Type	File Name
action_area_images	Attachment A_Figure 1_ProjectLocation.pdf
action_area_images	Attachment A_Figure 2_Related Projects.pdf
action_area_images	Attachment A_Figure 3_MNES.pdf
action_area_images	Attachment A_Figure 4_Water Resources.pdf
action_area_images	Attachment A_Figure 5_Wetlands.pdf
action_area_images	Attachment A_Figure 6_RE.pdf
action_area_images	Attachment A_Figure 7_Tenure.pdf
action_area_images	Attachment A_Figure 8_LandUse.pdf
action_area_images	Attachment A_Figure 9_Infrastructure.pdf
action_area_images	Attachment A_Figure 10_ProtectedAreas.pdf
govt_approval_conditions	Attachment C Approval requirements.pdf
localgov_approval_consent	Attachment B Tenure.pdf
supporting_tecn_reports	Attachment D Likelinood of occurrence assessment.pdf
nora_iauna_investigation	Allachment E Desktop searches.pol
Appendix B	
Coordinates	
Area 1	
-20.562564889492,147.57342194254	
-20.557551847424,147.56977914798	
-20.554101796787,147.55174732624	
-20.541683602803,147.55109871563	
-20.538807016573,147.56105354775	
-20.532645389894,147.56802590796	
-20.545097482221,147.58699596598	
-20.555104184845,147.65226481624	
-20.591566528768,147.68705566522	
-20.639903114045,147.69130216694	
-20.632010380285,147.62278016016	
-20.598507904169,147.5987298535	
-20.562564889492,147.57342194254	
Area 2	
-20.796035069156,147.78935398628	
-20.738793505266,147.78971176275	
-20.73925911186,147.95922867633	
-20.846748197777,147.96253062674	
-20.846376508688,147.78961596141	
-20.796035069156,147.78935398628	
Area 3	
-20.632151874536,147.62288142118	
-20.639832589905,147.69120106297	
-20.759130908551,147.7894140913	
-20.796106960104,147.78920322179	
-20.795285129219,147.71721247446	
-20.737254997626,147.67198912238	
-20.666901894161,147.62251943721	
-20.632151874536,147.62288142118	
Area 4	
-20.435756855193,147.50289091142	
-20.435321932504,147.63586597526	
-20.498119971711,147.67738080384	
-20.535266222987,147.68257717187	
-20.555104012671,147.65221454632	
-20.550332689006,147.621895317	
-20.545097141066,147.58709668931	



-20.532645043274, 147.56807655281	
-20.535833685969,147.56431386188	
-20.531117828306,147.55664724643	
-20.534111335227,147.55449398438	
-20.534166787614,147.50542617981	
-20.435756855193,147.50289091142	