Title of Proposal - Mio College Vegetation Clearing for High Value Agriculture, Barratta Road, Clare QLD

Section 1 - Summary of your proposed action

Provide a summary of your proposed action, including any consultations undertaken.

1.1 Project Industry Type

Agriculture and Forestry

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

Mio College is proposing to develop 532 ha of native vegetation into a sugarcane farm in Clare, north Queensland, approximately 60 kilometres south east of the regional city of Townsville. The majority of the proposal is known as ‘stage 4’ of the Mio College Irrigated High Value Agriculture development, which includes clearing of the 493 ha of native remnant vegetation for irrigated high value agriculture. A smaller 40 ha area is also included, although not as part of the State approved stage 4. The main component of the project is development of the area for intensive irrigated sugarcane cropping. The project is the final stage of the larger intensification of use of the Mio College property which includes other areas of sugarcane cropping and light to moderate grazing (cattle) activities.

In addition to the irrigated high value agriculture, the project includes the development of a 1500 mega litre dam (approx.) for the capture and recycling of irrigation tail water from the cane farming operations and excess rain events. Construction of the dam will contribute to achieving best management practice irrigated sugarcane with the aim of increasing water use efficiency and environmental sustainability benefits for the farm.

The project also proposes habitat improvement measures such as establishing riparian buffers, habitat corridors and improving habitat on parts of the property which will remain uncleared. To achieve the purpose of the development, extensive and permanent clearing of remnant vegetation is required. Clearing will be undertaken using standard methods for broad acre clearing.

1.3 What is the extent and location of your proposed action? Use the polygon tool on the map below to mark the location of your proposed action.

Area	Point	Latitude	Longitude
Property location	1	-19.776365638332	147.19607753089
Property location	2	-19.784926861925	147.15762538246
Property location	3	-19.782826981742	147.15110225013

Area	Point	Latitude	Longitude
Property location	4	-19.771357916976	147.15075892738
Property location	5	-19.769580945771	147.15127391151
Property location	6	-19.764573011262	147.14698237708
Property location	7	-19.762149760677	147.14663905433
Property location	8	-19.761988209329	147.14869899085
Property location	9	-19.759080257076	147.14869899085
Property location	10	-19.758110927876	147.14543742469
Property location	11	-19.753102633178	147.14784068397
Property location	12	-19.743893422986	147.14938563636
Property location	13	-19.737753654345	147.13994426063
Property location	14	-19.734845260484	147.14045924476
Property location	15	-19.734198943544	147.13891429237
Property location	16	-19.735168417973	147.13599604896
Property location	17	-19.731936813659	147.13462275794
Property location	18	-19.730644153628	147.13479441932
Property location	19	-19.729836235796	147.13771266273
Property location	20	-19.723372746069	147.14148921302
Property location	21	-19.719332932234	147.14457911781
Property location	22	-19.717393785327	147.14629573158
Property location	23	-19.713677021345	147.14578074745
Property location	24	-19.711091395444	147.14784068397
Property location	25	-19.709475358027	147.14663905433
Property location	26	-19.707536091573	147.14749736122
Property location	27	-19.707374484973	147.14818400672
Property location	28	-19.753264193526	147.19058436683
Property location	29	-19.757787816834	147.19727916053
Property location	30	-19.761503554302	147.19848079017
Property location	31	-19.768127045506	147.19779414466
Property location	32	-19.774588722958	147.19624919227
Property location	33	-19.77652717511	147.19573420814
Property location	34	-19.776365638332	147.19607753089

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 action is located near the township of Clare, approximately 30 kilometres south west of Ayr on the North Queensland Coastline. The locality of the proposed action is shown below. The proposed action is located within lot 17 on plan SP248092, 1450 Barratta Road, Clare, Queensland 4807, situated in the Burdekin Shire Council local government area. The site is approximately 2,597 ha of prime agricultural land. Previous use of the land was as the Burdekin Agricultural College and cane farms.

1.6 What is the size of the development footprint or work area?

532 ha

1.7 Is the proposed action a street address or lot?

Lot

1.7.2 Describe the lot number and title.17 on SP248092

1.8 Primary Jurisdiction.

Queensland

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

No

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

Yes

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

No

1.11 Provide an estimated start and estimated end date for the proposed action.

Start date 03/2017

End date 07/2017

1.12 Provide details of the context, planning framework and State and/or Local government requirements.

Currently, under the *Vegetation Management Act 1999* (Qld) (VMA) framework, clearing of native vegetation is assessable development under the *Sustainable Planning Act 2009* (Qld) and requires a development approval, unless an exemption applies. In Queensland, clearing vegetation must be for a “relevant purpose” under the VMA. One of those purposes includes "High-value agriculture" and "irrigated high-value agriculture" which will allow clearing to establish, cultivate and harvest crops in both dry-land and irrigated conditions.

Importantly, proponents of High Value Agriculture are required to demonstrate economic viability, land suitablility and that environmental impacts will be minimised or mitigated.The proposed development has received the appropriate permits and approvals from the State and Local Governments.

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

No public consultation has been undertaken concerning the Proposed Action.

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 action is not subject to any further environmental impact assessments or Environmental Impact Statement under any other relevant Government jurisdictions.

1.15 Is this action part of a staged development (or a component of a larger project)?

Yes

1.15.1 Provide information about the larger action and details of any interdependency between the stages/components and the larger action.

The proposed action is part of a staged development, being the overall expansion of agricultural activities at Mio College. The action is the final stage (Stage 4) of the development of the property.

Although the development is staged, each stage is independent of each other. The referred action is stand-alone and viable in its own right. The existing High Value Agriculture development approvals have also been split into their own distinct projects.

1.16 Is the proposed action related to other actions or proposals in the region?

No

Section 2 - Matters of National Environmental Significance

Describe the affected area and the likely impacts of the proposal, emphasising the relevant matters protected by the EPBC Act. Refer to relevant maps as appropriate. The interactive map tool can help determine whether matters of national environmental significance or other matters protected by the EPBC Act are likely to occur in your area of interest. Consideration of likely impacts should include both direct and indirect impacts.

Your assessment of likely impacts should consider whether a bioregional plan is relevant to your proposal. The following resources can assist you in your assessment of likely impacts:

• Profiles of relevant species/communities (where available), that will assist in the identification of whether there is likely to be a significant impact on them if the proposal proceeds;

• Significant Impact Guidelines 1.1 – Matters of National Environmental Significance;

• Significant Impact Guideline 1.2 – Actions on, or impacting upon, Commonwealth land and Actions by Commonwealth Agencies.

2.1 Is the proposed action likely to impact on the values of any World Heritage properties?

Yes

2.1.1 Impact table

Properties	Impact
See 2.8	Great Barrier Reef World Heritage Area

2.1.2 Do you consider this impact to be significant?

No

2.2 Is the proposed action likely to impact on the values of any National Heritage places?

No

2.3 Is the proposed action likely to impact on the ecological character of a Ramsar wetland?

No

2.4 Is the proposed action likely to impact on the members of any listed threatened species (except a conservation dependent species) or any threatened ecological community, or their habitat?

Yes

2.4.1 Impact table

Species	Impact
The Protected Matters Search Tool identified a number of listed threatened species as either having habitat, or potentially having habitat, within a five (5) kilometre radius of the proposed development area. An assessment of the likelihood of occurrence for listed species was conducted considering the results of the desktop assessment, ecology surveys and field verified vegetation communities and habitat features of the property. Following the detailed field investigations and the desktop assessments undertaken to date, only three listed threatened species are considered likely to occur within the development area. 1. Black-throated Finch; 2. Squatter Pigeon; and 3. Bare-rumped Sheathtail Bat.	Potential impacts For the Black-throated Finch, changes in land use such as intensification of grazing, clearing for intensive agriculture including planting of non-native fodder grasses, weed infestation and urban expansion are among the major threats to the species . Habitat Loss The proposed development area is now known Black-throated Finch habitat. The habitat consists of open woodlands within 500 - 600 m of water and sightings during surveys have confirmed their occurrence. Due to the species conservation status, the proposed development area may be considered habitat critical for supporting a population of Black-throated Finches. Of the ~2,597 ha property, only habitat within the proposed development area will be impacted by clearing, and over 730 ha will remain intact (not including non-remnant vegetation communities which will remain uncleared). The proposed development will reduce available nesting sites for the species. Additionally, the action is likely to impact on Black-throated Finches through the clearing of grassy woodland and damming of semi-natural creek flows. Habitat Fragmentation Minor fragmentation of Black-throated Finch habitat by the proposed development by dividing the non-impacted Barrata Ck habitat and riparian buffer which will be maintained will occur. Any further fragmentation is not expected due to the context of the property which is surrounded on most sides by adjacent cane farms. A large expanse of potentially suitable habitat is situated to the south west of the property and connected to the proposed development area via Barratta Creek. The proposed development

Species	Impact
	may impact habitat connectivity between habitat north and south of the property if not mitigated. Water supply immediately downstream of the proposed recycle dam may be affected given the location of the dam. In contrast, the dam will provide a valuable permanent water source for the finches which are known to utilise water sources such as farm dams and stock troughs . Direct mortality Direct mortality during clearing is not considered to constitute a significant impact in and of itself. Finches are likely to flee the area during clearing activities. Clearing of finch habitat during the breeding season may result in destruction of nests, eggs and nestlings. Introduced flora (invasive weeds) The spread of exotic grasses is a potential impact for this species. Although Black-throated Finches are known to forage on some exotic grasses, some species such as Buffel Grass are not taken by the Finch. Appropriate management of exotic pasture species can mitigate against this impact. Feral Animals The Proponent intends to lightly graze the irrigation channel (Clay Gully) to reduce overgrowth of invasive grass species such as Olive Hymenachne and Para grass. Overgrazing by cattle, could contribute to impacts on the species. Any activity that reduces the productivity of grass in remnant vegetation could further impact Black-throated Finches. Livestock also degrade streambanks and riparian vegetation due to pugging and wallowing. Providing water for livestock through troughs and dams may allow Black-throated Finches to expand their breeding range on the property. Listed vulnerable species Bare-rumped Sheathtail Bat (Saccolaimus saccolaimus nudicluniatus) Habitat loss The surveyed habitat was found to be suitable habitat for the species being Eucalyptus platyphylla woodland, and contained a large number of tree hollows considered suitable for roosting by the Bare-rumped Sheathtail Bat. Clearing of this habitat will likely result in a direct and permanent loss of the species habitat. Hollow bearing trees, suitable for

Species	Impact
	roosting, will be lost within the development footprint. Little is known about the range or foraging habits of the Bare-rumped Sheathtail Bat. Therefore, it is conservatively considered that loss of foraging habitat within the development area can be expected. As the species feeds in open airspace above the canopy, a reduction may also be expected in insect prey abundance. Habitat fragmentation Little is known about the range and movement of the Bare-rumped Sheathtail Bat. The recovery plan notes that no information is available for commuting habitat. Given the relatively small footprint of the development compared with the extent of the available habitat, there is a very low likelihood of the project fragmenting suitable habitat. Direct mortality during clearing Direct mortality during clearing is conceivable due to the removal of roosts. Bat's present on the site and in roosts could be expected to suffer injury or death during the felling of suitable trees. Introduced flora (invasive weeds) Unlike the impacts identified for the Black-throated Finch, impacts due to invasive exotic flora are not considered likely to cause significant impacts for the species. Some impacts may be caused by impacts of exotic aquatic weeds preventing access to suitable water sources. Feral Animals Competition from feral animals such as the Common Myna (Acridotheres tristis) may pose a further threat to the Bare-rumped Sheathtail Bat. It is not expected that the proposed action will lead to an increase in feral animals which could pose a threat to the Bare-rumped Sheathtail Bat. Squatter Pigeon (Geophaps scripta scripta) Known to inhabit grassy woodlands in close proximity to water, the habitat may be considered partially suitable as discussed above. Including troughs and other artificial sources for livestock. They inhabit a range of remnant and cleared habitats. Habitat loss may impact on the Squatter Pigeon on the property. Habitat Fragmentation Squatter Pigeons are highly mobile and are found in both remnant and non-remnant habitats which are

Species	Impact
	close to water sources. For this reason, habitat fragmentation is not expected to be an important impact to this species. However, changes to water sources could potentially impact Squatter Pigeons. Direct Mortality During Clearing Similar to the risk assessment of the Black-throated Finch, Squatter Pigeons are at low risk of direct injury or death during clearing, although the risk of damage to nests and nestlings is a concern. Other threats The above-mentioned identified impacts on Black-throated Finches are also applicable to the Squatter Pigeon. Inappropriate fire regimes, increase in invasive flora species (especially grasses), and feral animal predation are all potential impacts to the Squatter Pigeon. The fact that this species is ground dwelling makes it more vulnerable to predation from feral animals. Additionally, other impacts such as overgrazing by cattle could impact the population.

2.4.2 Do you consider this impact to be significant?

Yes

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

Yes

2.5.1 Impact table

Species	Impact
The Protected Matters Search Tool identified the following listed migratory species as possibly occurring within the development area: Fork-tailed Swift (Apus pacificus), Salt-water Crocodile (Crocodylus porosus), Freshwater Sawfish (Pristis pristis), Oriental Cuckoo (Cuculus optatus), White-throated Needletail (Hirundapus caudacutus), Rainbow Bee-eater (Merops ornatus), Black-faced Monarch	Rainbow Bee-eater Rainbow Bee-eaters were a common occurrence during the field investigations. Clearing will not result in any significant impacts to these species. Although the site provides suitable nesting and foraging habitat, the species readily breeds in disturbed sites and is frequently recorded in urban areas. All surrounding habitat is likely to be suitable for disturbed Rainbow-bee Eaters and therefore

Species	Impact
(Monarcha melanopsis), Spectacled Monarch (Monarcha trivirgatus), Yellow Wagtail (Motacilla flava), Satin Flycatcher (Myiagra cyanoleuca), Rufous Fantail (Rhipidura rufifrons), Great Egret (Ardea alba), Cattle Egret (Ardea ibis), Lathams Snipe (Gallinago hardwickii), Osprey (Pandion haliaetus). Of the listed migratory species, only the Rainbow Bee-eater, Great Egret, and Cattle Egret were considered known or likely to exist within the area of the Proposed Action.	populations will not be impacted by fragmentation. Even though major impacts are not expected, the above mentioned mitigation measures are also suitable to reduce any impacts on this species. Cattle Egret (Ardea ibis) and Eastern Great Egret Not cattle egrets or eastern great egrets were observed during the site visit, although there is suitable habitat on site. Both are known to frequent farm dams and creeks. Wetland and riparian habitat will not be impacted by the project and will be subject to a 100m buffer. Therefore, Egrets are unlikely to be impacted by the development. Any amount of habitat for Eastern Great Egrets and Cattle Egrets lost will be negligible. The only management measure worth mentioning for the protection of these species is the control of weeds, and in particular aquatic weeds.

2.5.2 Do you consider this impact to be significant?

No

2.6 Is the proposed action to be undertaken in a marine environment (outside Commonwealth marine areas)?

No

2.7 Is the proposed action likely to impact on any part of the environment in the Commonwealth land?

No

2.8 Is the proposed action taking place in the Great Barrier Reef Marine Park?

Yes

2.8.1 Describe the nature and extent of the likely impact on the whole of the environment.

Although the PMST did not capture the Great Barrier Reef Marine Park or World Heritage Area (GBRMP and GBRWHA) as a matter potentially affected by the action, it is assessed here due to the location of the proposed action and its possible connection to the GBRMP via catchment related impacts. The area of the proposed action is located approximately 30 km inland and

within the Haughton River Basin. The basin is approximately 405,000 ha in size. The property drains into Barratta Creek which ultimately discharges into the marine environment.

The Haughton basin is dominated by extensive wetland systems and the estuaries in the basin make up approximately eight per cent of the extent of estuaries in the Great Barrier Reef. The Haughton basin is dominated by sugar cane production. Inshore areas of the Great Barrier Reef receiving river discharge from the Haughton River provide habitat for a range of listed marine and migratory flora and fauna. River runoff and flood plumes discharge sediments, nutrients, and pesticides into the marine environment. The Reef Water Quality Protection Plan (Reef Plan) 2015 Report Card reports that overall marine condition, seagrass, and water quality are in moderate condition, while coral reefs are in poor condition.

Changes to land use, including development of land and water resources is the predominant cause of the moderate and poor condition of the marine ecosystems adjacent to the Haughton basin. These changes and developments such as: clearing of native vegetation, irrigated agriculture, and ponded pasture, have resulted in an ongoing decline of species diversity and ecosystem function.

Impact on water quality and ecosystem connectivity
Changes in hydrology and in-stream ecology have led to poor water quality and loss of ecosystem connectivity to the World Heritage Area. Modification of the floodplain and changes to overland hydrology has severely impacted the Haughton basin, and as a result, wetland communities downstream.

Following the completion of the Burdekin Falls Dam in 1987, the creation of the Burdekin-Haughton Water Supply Scheme (BHWSS) was implemented. Water released from the Burdekin Falls Dam is pumped from the Clare Weir (Burdekin River) into the channel network during the dry season. From there water is served to farms via a system of distribution channels for irrigation.
Over 700,000 ML of water is now distributed via the BHWSS annually which has resulted in major changes to historically seasonally dry remnant vegetation communities. Wild Environmental Consultants observed some of these changes on the Mio College Property. The Barratta Creek hydrology is now severely altered and has serious downstream environmental effects.

Downstream impacts include changes to normally estuarine vegetation communities such as mangroves to plant communities adapted to freshwater such as melaleuca, as the additional freshwater from irrigation has resulted in the ephemeral watercourse becoming a permanently flowing creek. Utilisation of water for irrigation of the proposed cane farm will reduce the annual flow downstream by an unknown amount, however this benefit is likely to be minor given the scale of the annual flows.

Wastewater/ tailwater due to irrigation of the sugarcane is a likely impact on downstream and marine park water quality and the MNES which rely on it (if not mitigated). Nutrients, sediments, and agri-chemicals entering coastal ecosystems are known to impact on inshore corals and seagrass meadows which in turn affects seagrass dependant species such as dugong and tiger prawns. The decline in marine water quality of the Great Barrier Reef associated with terrestrial

runoff in reef catchments is a major cause of the current poor state of reef ecosystems. Clearing of the remnant vegetation may increase the chance of cleared areas being susceptible to rill, gully and stream bank erosion. These three forms of erosion are among the primary sources of sediment loss to the Great Barrier Reef lagoon as sheet wash and rill erosion, gully erosion, and river bank erosion.

Cultivation of soil for cropping purposes can result in increased vulnerability to erosion and soil loss can be very high. Sugarcane cultivation is likely to include the use of herbicides, pesticides, and fungicides giving rise to the possibility that these compounds will enter the Great Barrier Reef ecosystems at some level. Runoff during the wet season is generally considered to be the main vector by which these compounds enter the Marine Park. Once in the Marine Park, persistence of the pesticides is poorly understood, but is thought to be long lasting, as levels of the compounds are found in coastal waters during the dry season. These compounds, especially photosystem inhibiting herbicides may impact on inshore seagrasses and coral reef communities.

2.8.2 Do you consider this impact to be significant?

No

2.9 Will there be any impact on a water resource related to coal / gas / mining?

No

2.10 Is the proposed action a nuclear action?

No

2.11 Is the proposed action to be taken by the Commonwealth agency?

No

2.12 Is the proposed action to be undertaken in a Commonwealth Heritage Place Overseas?

No

2.13 Is the proposed action likely to impact on any part of the environment in the Commonwealth marine area?

No

Section 3 - Description of the project area

Provide a description of the project area and the affected area, including information about the following features (where relevant to the project area and/or affected area, and to the extent not otherwise addressed in Section 2).

3.1 Describe the flora and fauna relevant to the project area.

Flora surveys were conducted on both the Proposed Development Area and Proposed Conservation Area. The majority of the Vegetation within the Proposed Action comprised of REs 11.3.7 and 11.3.9 with RE 11.3.12 expressed in some areas, as a secondary vegetation type.

Soil type and land form was consistent across all vegetation survey sites, being silty clay formed on Cainozoic quaternary alluvial plains. The woodlands are remnant and the canopy is in good condition containing mature *Eucalyptus platyphylla* with hollows that are likely to provide suitable roosting habitat for microbats and other fauna, especially in the southern section of the Proposed Development Area. While the canopy consisted of native species the shrub layer often contained invasive species including Chinee apple (*Ziziphus mauritiana*) and *Parkinsonia aculeate*. The ground layer was observed to be in relatively poor condition consisting of a low proportion of native: exotic herb and grass species (approximately 25%: 75% based on estimates from the relevant three vegetation surveys).

The vegetation community in the south-eastern section of the Proposed Development Area (~64 ha) was noted to be consistent with the mapped RE 11.3.31 (*Ophiuros exaltatus*, Dichanthium spp. grassland on alluvial plains). This area was heavily dominated by a ground layer of legumes and grasses, lacked any noteworthy canopy layer and contained a few sparse shrubs consisting of the invasive *Parkinsonia aculeate*.

The riparian vegetation (Clay Creek) which diagonally dissects the Proposed Development Area (~39 ha) is also mapped as RE 11.3.27x1b. In reality this vegetation is highly degraded and mainly consists of invasive weeds. An Olive Hymenachne (*Hymenachne amplexicaulis*; a declared weed of national significance) infestation bordered the entire waterway, extending into the surrounding vegetation by up to 5 – 10 m. The remaining strip of vegetation between the Olive Hymenachne and the woodland community was dominated by Para grass (*Brachiaria mutica)*, lacked a canopy layer and contained a very sparse shrub layer dominated by Chinee apple (*Ziziphus mauritiana*).

In summary, the Proposed Development area consists of ~453 ha of woodland habitat likely suitable to the Black-throated Finch and Bare-rump Sheath-tail Bat. The condition of the Proposed Development Area was noted to be generally poor, especially regarding ground layer species. Additionally, the Proposed Development Area contains ~64 ha of grassland habitat which is unlikely to be suitable habitat for either bird or bat species. Importantly, no listed

threatened plant species were identified on site.

Fauna

Preliminary database searches identified that 26 fauna species of concern were projected have the potential to occur within the proposed development area. Following an initial desktop assessment, 11 of those 26 species were considered to have a likely or possible chance of occurrence within the site.

In total, 100 fauna species were recorded from all field survey efforts combined, including 74 birds, five (5) reptiles, two (2) amphibians and 19 mammals.After all surveys were conducted, four species of concern were identified on site. The species were: Black-throated Finch (*Poephila cincta cincta*), Squatter Pigeon (*Geophaps scripta scripta*), Rainbow Bee-eater (*Merops ornatus*), and Bare-rumped Sheath Tail Bat (*Saccolaimus saccolaimus nudicluniatus*).

3.2 Describe the hydrology relevant to the project area (including water flows).

Two watercourses are identified as occurring within the study area. Clay creek meanders from the south-east corner of the development to the north west. The other major watercourse is the upper reaches of Barratta Creek, which occurs outside of the development footprint on the western edge. Although parts of Clay creek may be naturally occurring, the upper reaches on the property are more resembling of an irrigation channel.

Modification of the floodplain and changes to overland hydrology has severely impacted the Haughton basin, and as a result, wetland communities downstream.

Following the completion of the Burdekin Falls Dam in 1987, the creation of the Burdekin-Haughton Water Supply Scheme (BHWSS) was implemented. Water released from the Burdekin Falls Dam is pumped from the Clare Weir (Burdekin River) into the channel network during the dry season. From there water is served to farms via a system of distribution channels for irrigation. Over 700,000 ML of water is now distributed via the BHWSS annually which has resulted in major changes to historically seasonally dry remnant vegetation communities. Wild Environmental Consultants observed some of these changes on the Mio College Property.

The Barratta Creek hydrology is now severely altered and has serious downstream environmental effects. Downstream impacts include changes to normally estuarine vegetation communities such as mangroves to plant communities adapted to freshwater such as melaleuca, as the additional freshwater from irrigation has resulted in the ephemeral watercourse becoming a permanently flowing creek. Utilisation of water for irrigation of the proposed cane farm will reduce the annual flow downstream by an unknown amount, however this benefit is likely to be minor given the scale of the annual flows.

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

Flora surveys were conducted on both the Proposed Development Area and Proposed Conservation Area. Of the listed Regional Ecosystems, none are of concern according to their *Vegetation Management Act 1999* class and two are noted to be of concern for biodiversity (11.3.27 & 11.3.31). Investigations on site determined these Regional Ecosystem descriptions to be broadly inaccurate and therefore important inconsistencies are described below.

Within the Proposed Development Area approximately 556 ha was mapped by the Queensland Government as containing a south-eastern section of RE 11.3.31 (*Ophiuros exaltatus*, Dichanthium *spp*. grassland on alluvial plains), a central section of RE 11.3.27x1b (Plaustrine wetlands) / 11.3.12 (*Melaleuca viridiflora M. argentea* +/- *M. dealbata* woodland on alluvial plains), a diagonal riparian strip of RE 11.3.27x1b and remaining sections comprising of REs 11.3.7 and 11.3.9 (Corymbia *spp*. woodland on alluvial plains and *Eucalyptus platyphylla*, Corymbia spp. woodland on alluvial plains respectively; Figure 6).

In contrast to the Queensland Government map projections, RE 11.3.27x1b was not found within the Proposed Development Area. Error in the mapping may have been due to historic overland flow from Sunwater irrigation channels resulting in artificially wet areas, which have since been remedied by the landowner. Confirmation through vegetation surveys and observations revealed that this area and in fact the majority of the PDA (**~453 ha**) comprised of REs 11.3.7 and 11.3.9 with RE 11.3.12 expressed in some areas, as a secondary vegetation type (Figure 7 and Appendix A – vegetation survey/observation sites 1, 2, 3 & 6).

Soil type and land form was consistent across all vegetation survey sites, being silty clay formed on Cainozoic quaternary alluvial plains. The woodlands are remnant and the canopy is in good condition containing mature *Eucalyptus platyphylla* with hollows that are likely to provide suitable roosting habitat for microbats and other fauna, especially in the southern section of the PDA. While the canopy consisted of native species the shrub layer often contained invasive species including Chinee apple (*Ziziphus mauritiana*) and *Parkinsonia aculeate*. The ground layer was observed to be in relatively poor condition consisting of a low proportion of native: exotic herb and grass species (approximately 25%: 75% based on estimates from the relevant three vegetation surveys). The owner reports that inundation of many sections of this land occurred due to cane farm irrigation overflow prior to construction of the irrigation channel in the Proposed Development Area and perhaps this inundation explains why RE 11.3.27x1b had been projected to occur here.

The vegetation community in the south-eastern section of the Proposed Development Area (~64 ha) was noted to be consistent with the mapped RE 11.3.31 (*Ophiuros exaltatus*, Dichanthium spp. grassland on alluvial plains). This area was heavily dominated by a ground layer of legumes and grasses, lacked any noteworthy canopy layer and contained a few sparse shrubs consisting of the invasive *Parkinsonia aculeate* (Appendix A – vegetation observation site 4). *Dichanthium sericeum* was not found within this regional ecosystem.

The riparian vegetation (Clay Creek) which diagonally dissects the PDA (~39 ha) is also mapped as RE 11.3.27x1b. In reality this vegetation is highly degraded and mainly consists of invasive weeds. An Olive Hymenachne (*Hymenachne amplexicaulis*; a declared weed of national significance) infestation bordered the entire waterway, extending into the surrounding vegetation by up to 5 – 10 m. The remaining strip of vegetation between the Olive Hymenachne and the woodland community was dominated by Para grass (*Brachiaria mutica)*, lacked a canopy layer and contained a very sparse shrub layer dominated by Chinee apple (*Ziziphus mauritiana*).

The Proposed Conservation Area comprises of a ~962 ha of habitat. Like the Proposed Development Area, the Proposed Conservation Area contained a mosaic of REs 11.3.7 and 11.3.9 occasionally expressing RE 11.3.12 as a secondary vegetation type (~652 ha). The Proposed Conservation Area was not as strictly delineated by RE type as mapped, however patches of habitat dominated by either *Eucalyptus platyphylla*, *Corymbia tessellaris* or *Corymbia dallachiana* were noted throughout the area. Similar to the PDA, the woodlands in the PCA are remnant and the canopy is in good condition containing mature *Eucalyptus platyphylla* with hollows that could potentially provide roosting habitat for microbats. The PCA shrub layer contained areas which were dominated by native species such as *Planchonia careya* and *Grevillea striata*, but contained invasive species such as Chinee apple (*Ziziphus mauritiana*) and *Parkinsonia aculeate*. The ground layer was observed to be in moderate condition consisting of a high proportion of native: exotic herb and grass species (approximately 80: 20 based on estimates from the relevant three vegetation surveys). However, unlike the Proposed Development Area the Proposed Conservation Area has a noteworthy presence of two invasive vine species: Rubber vine (*Cryptostegia grandiflora*), listed as a restricted invasive plant and a Weed of National Significance, and Elephant Ear vine (*Argyreia nervosa*) a restricted invasive plant.

The most distinct change in vegetation within the Proposed Conservation Area was an eastern section which was inundated from cane farm irrigation runoff. This habitat had significantly different ground cover dominated by Para grass (*Brachiaria mutica*), sedges (Cyperus sp.) and Sporobolus grass. While the ground cover had changed in this area, the same Eucalypt and Corymbia species dominated canopy layers.

The remainder of the property includes a section of non-remnant habitat (~191 ha), consisting of a cleared area containing regrowth Eucalypt and Corymbia species, and a riparian strip along Barratta Creek (~120 ha) consisting of mature remnant vegetation.

In summary, the Proposed Development area and Conservation Area consist of ~453 ha and ~652 ha (respectively) of woodland habitat likely suitable to the Black-throated Finch and Bare-rump Sheath-tail Bat and ~39 ha and ~120 ha riparian habitat (respectively) which may be utilised by both species to access water sources. While the condition of the Proposed Development Area was noted to be somewhat poorer than the Proposed Conservation Area, especially regarding ground layer species, the Proposed Conservation Area contained a higher presence of invasive vines which are likely to continue smothering vegetation and reduce biodiversity. Additionally, the Proposed Development Area contains ~64 ha of grassland habitat which is unlikely to be suitable habitat for either bird or bat species and the remainder of the property includes ~191 ha of non-remnant habitat which would likely be suitable for both

species after further rehabilitation.

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

The property is not considered to support any outstanding natural features.

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

Regional Ecosystem

Short Description

VMA Status

11.3.25

Eucalyptus tereticornis or E. camaldulensis woodland fringing drainage lines

Least concern

11.3.7

Corymbia spp. woodland on alluvial plains

Least concern

11.3.35

Eucalyptus platyphylla, Corymbia clarksoniana woodland on alluvial plains

Least concern

11.3.31

Ophiuros exaltatus, Dichanthium spp. grassland on alluvial plains

Least concern

11.3.9

Eucalyptus platyphylla, Corymbia spp. woodland on alluvial plains

Least concern

11.3.12

Melaleuca viridiflora M. argentea +/- M. dealbata woodland on alluvial plains

Least concern

e

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

The proposed development is situated on predominantly flat land which gradually slopes north-north west to drain into Barratta Creek.

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

The current state of the environment is native vegetation in a degraded form. Some areas of the Proposed Action footprint are heavily infested by invasive weeds and subject to impact from grazing practices. Historic overflow from irrigation channels onto the property have resulted in artificially wet areas on parts of the Proposed Action area.

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

A search of the Department of the Environment and Energy Australian Heritage Database did not return any results for the property.

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

No cultural heritage studies have been undertaken. The area is not known to contain any indigenous heritage values.

3.10 Describe the tenure of the action area (e.g. freehold, leasehold) relevant to the project area.

The existing tenure of the action area is freehold.

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

The area of the Proposed Action is currently used for light to moderate grazing activities.

Section 4 - Measures to avoid or reduce impacts

Provide a description of measures that will be implemented to avoid, reduce, manage or offset any relevant impacts of the action. Include, if appropriate, any relevant reports or technical advice relating to the feasibility and effectiveness of the proposed measures.

Examples of relevant measures to avoid or reduce impacts may include the timing of works, avoidance of important habitat, specific design measures, or adoption of specific work practices.

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

Flora

A Weed and Pest Animal Management Plan (WPAMP) will be prepared and implemented for the project. Although this plan will mainly concern the perseveration of the remaining habitat, it will also consider any impacts by aquatic weeds.

Fauna

Vegetation clearing

To reduce the direct impact on species of concern, clearing will take place outside of the breeding season for Black-throated Finches (generally February to May) or implement pre-clearing surveys and protect Black-throated Finch nests from clearing until juveniles have left the nest. As Bare-rumped Sheathtail Bats are reported to breed during the wet season, clearing will not take place during the wet season to minimise the impact on immature bats which are likely to be more vulnerable to direct mortality.

It is not considered that inspections of tree hollows prior to clearing and throughout the development footprint would yield any results of the rare bat as the species is notoriously difficult to detect. However, during clearing activities, the detection of Bare-rumped Sheathtail Bats will trigger the cessation of all clearing works on-site and the notification of both the Department and the Queensland Department of Environment and Heritage Protection (EHP). Clearing activities will be monitored by a fauna spotter who will remain on site during the clearing.

Staged clearing will allow for birds and bats to leave the development area. Staged clearing will occur starting from the point furthest from the remaining habitat and progress towards remaining habitat to encourage fauna to flee into suitable remaining habitat.

Between each stage of clearing and the next there will be at least 1 period of 12 hours that starts at 6pm on a day and ends at 6am on the following day, during which no trees are to be

cleared.

Following the clearing, large trees (trees with a diameter of 50 cm or more) with hollows will be inspected after felling. In the unlikely occurrence that a bat was injured, it would be taken to the nearest wildlife carer. Any bats found and identified as Bare-rumped Sheathtail Bats will be reported to EHP and the Department. If the bat is deceased, it will be provided to an appropriately curated museum for confirmation of identity.

Weed and pest animal management

Implementation of a weed and pest animal management plan for the site will mitigate against the impact of feral animal predators such as feral pigs and cats. Weeds will be monitored to reduce and prevent spread of unsuitable grass types for Black-throated Finches, including excess *Stylosanthes scabra* domination, which Black-throated Finch are known to avoid[3].

Noise

All equipment used for clearing and construction will be maintained in good working order and shielded to reduce noise pollution if possible.

Fire

In remaining habitat, an appropriate Fire Management Plan will be implemented to reduce the potential impact of altered fire regime. This will protect against loss of necessary habitat features (such as shrubs and hollow bearing trees) and reduce the risk of uncontrolled fires at a broader scale.

Habitat connectivity (Wildlife corridor)

Fragmentation of habitat for the Black-throated Finch and the Bare-rumped Sheathtail Bat can be combated by the implementation of a wildlife corridor. The purpose of the corridor will be to maintain the habitat connectivity for each species. The corridor will be a suitable buffer of the Barratta Creek system to ensure large areas of habitat (i.e. the proposed conservation area and areas to the south west) suitable for the species remain functionally connected.

Corridor width

Width of the corridor should provide protection against edge effects, competition with exotic species and allow for effective movement for each species. There is no standard or generic corridor width, although generally the rule is the wider the better. Wild Environment proposes that the corridor width should take into consideration the landform, vegetation communities and structure, topography and significance to each species. The *Significant impact guidelines for the endangered black-throated finch* note that “when planning corridors and buffers, priority should be given to riparian areas and alluvial plains, where early flowering perennial grasses are likely to occur”. Therefore, it is proposed that a corridor with of 150m (at it’s narrowest) from the

highest bank is maintained. This will capture both riparian vegetation and a suitable amount of non-riparian regional ecosystems on alluvial plains, which are suitable for use by both the Black-throated Finch and Bare-rumped Sheathtail Bat and consistent with the guidelines. Further, the corridor remaining will produce suitable habitat for resident Black-throated Finches, which maintain small home ranges of between 25 and 120 ha and are known to move long distances under certain circumstances. Prior to clearing occurring, the proposed riparian buffer/corridor should be clearly delineated.

Great Barrier Reef Marine Park and World Heritage Area
Recycle Pit (Dam)

The Australian Centre for Tropical Freshwater Research report: *Best Management Practices to Improve the Quality of Water Leaving Irrigated Sugarcane Farms: Guidelines for the Burdekin Region (ACTFR Report No. 07/36)*, notes one of the key goals for reducing the impact on water quality as a result of sugarcane production is to reduce the amount of water leaving farms through run off and deep drainage, both pathways that impact on off-site water quality. The main mechanism to achieve this is by the construction of a recycling pit or dam which offer a range of water use efficiency and environmental sustainability benefits.

The proponent practices furrow or flood irrigation, a system where water is pumped through furrows to irrigate the sugarcane. Flood irrigation can lead to large volumes of tailwater runoff leaving the farm. The recycle pit will be constructed to receive excess tailwater, and supply captured irrigation tailwater back to the sugarcane flood irrigation system. Although it is not the primary purpose of the recycle pit to trap nutrients, sediment and pesticide runoff, recycle pits are effective traps, including the benefit that water will again pass through the crop for effective opportunities for removal and uptake of the stored sediments and nutrients.

Recycle pits which are engineered and designed appropriately can capture almost 100% of irrigation tailwater, with its contained fine sediment, nutrients and pesticides. The recycle pit will be sufficiently sized to capture a significant proportion of rainfall events.

A study which looks at the effectiveness and appropriateness of tailwater capture and reuse in the Barratta Creek System, identified the project area as a suitable site for additional surface water capture.

Riparian buffer

To reduce the potential for streambank and gully erosion, the width of stream bank vegetation as a buffer will be a minimum of 10m plus the bank height of the highest bank. A proposed buffer along Clay Gully is proposed to mitigate the potential future risk of erosion.

Best Practice Management – Grazing

Low levels of grazing have been used successfully in weed infested riparian areas to improve riparian and wetland health. The Proponent will adopt best practice grazing practices for remaining riparian areas where introduced grasses dominate and where these grasses either pose a fire risk to well established riparian forests or where these grasses are choking

waterways and reducing native grass species suitable for foraging by Black-throated Finch.

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.

The overal outcomes for the proprosed action is to ensure that the proposed avoidance and mitigation measures reduce the overall impact from the project to below signifcant thresholds. Any residual impacts of the Proposed Action will be offset.

Section 5 – Conclusion on the likelihood of significant impacts

A checkbox tick identifies each of the matters of National Environmental Significance you identified in section 2 of this application as likely to be a significant impact.

Review the matters you have identified below. If a matter ticked below has been incorrectly identified you will need to return to Section 2 to edit.

5.1.1 World Heritage Properties

No

5.1.2 National Heritage Places

No

5.1.3 Wetlands of International Importance (declared Ramsar Wetlands)

No

5.1.4 Listed threatened species or any threatened ecological community

Listed threatened species and communities - Yes

5.1.5 Listed migratory species

No

5.1.6 Commonwealth marine environment

No

5.1.7 Protection of the environment from actions involving Commonwealth land

No

5.1.8 Great Barrier Reef Marine Park

No

5.1.9 A water resource, in relation to coal/gas/mining

No

5.1.10 Protection of the environment from nuclear actions

No

5.1.11 Protection of the environment from Commonwealth actions

No

5.1.12 Commonwealth Heritage places overseas

No

5.2 If 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.

With regards to the Great Barrier Reef Marine Park, although impacts are considered, the mitigation measures proposed will reduce the impact below signficant levels.

Section 6 – Environmental record of the person proposing to take the action

Provide details of any proceedings under Commonwealth, State or Territory law against the person proposing to take the action that pertain to the protection of the environment or the conservation and sustainable use of natural resources.

6.1 Does the person taking the action have a satisfactory record of responsible environmental management? Please explain in further detail.

Yes, the person taking the Proposed Action has a satisfactory environmental record and operates the existing agricultural operation in a sustainable manner.

6.2 Provide 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.

Not applicable

6.3 Will the action be taken in accordance with the corporation's environmental policy and planning framework?

No

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?

No

Section 7 – Information sources

You are required to provide the references used in preparing the referral including the reliability of the source.

7.1 List references used in preparing the referral (please provide the reference source reliability and any uncertainties of source).

Reference Source	Reliability	Uncertainties
• Wild Environmental Consultants, 2016, Environmental Impact Assessment, Stage 4 High Value Agriculture - Lot 17 on SP248092, 1450 Barratta Road, Clare, prepared by Wild Environmental Consultants for Mio College Pty Ltd. • Fauna Assessment Report – Lot 17 on Plan SP248092 Upper Haughton, Queensland" prepared by NRA Environmental Consultants (NRA) • Department of the Environment, 2016, Species profile and threats database – Poephila cincta cincta – Southern Black-throated Finch, Department of the Environment, viewed 6 July 2016, http://www.environment.gov.au/cgi-bin/sprat/public/publicspecies.pl?taxon_id=64447 • Black-throated Finch Recovery Team, Department of Environment and Climate Change (NSW) and Queensland Parks and Wildlife Service. 2007. National recovery plan for the black-throated finch southern subspecies Poephila cincta cincta . Report to the Department of the Environment and Water Resources,	The references used in developing the report and assessment are recent and relevant references.	None

Reference Source	Reliability	Uncertainties
Canberra. Department of Environment and Climate Change (NSW), Hurstville and Queensland Parks and Wildlife Service, Brisbane. • Milne, D.J., Jackling, F.C., Sidhu, M., and Appleton, B.R. 2009. Shedding new light on old species identifications: morphological and genetic evidence suggests a need for conservation status review of the critically endangered bat Saccolaimus saccolaimus. Wildlife Research 36: 496-508. • Menkhorst, P., and Knight, F. 2011, A field guide to the mammals of Australia, 3rd edn, Oxford, Sydney, NSW • Department of the Environment, 2016, Species profile and threats database – Saccolaimus saccolaimus nudicluniatus – Bare-rumped Sheathtail Bat, Department of the Environment, viewed 4 July 2016, http://www.environment.gov.au/cgi-bin/sprat/public/publicspecies.pl?taxon_id=66889 • Milne, D.J., Jackling, F.C., Sidhu, M., and Appleton, B.R. 2009. Shedding new light on old species identifications: morphological and genetic evidence suggests a need for conservation status review of the critically endangered bat Saccolaimus saccolaimus. Wildlife Research 36: 496-508. • Schulz, M. and Thomson, B. 2007. National recovery plan for the bare-rumped sheathtail bat Saccolaimus saccolaimus nudicluniatus Report to Department of the Environment and Water Resources,		

Reference Source	Reliability	Uncertainties
Canberra. Queensland Parks and Wildlife Service, Brisbane. • Threatened Species Scientific Committee. 2015. Conservation Advice Geophaps scripta scripta squatter pigeon (southern). Canberra. • Graham Pizzey, F. K. 2003. A Field Guide to the Birds of Australia, Australia, HarperCollins, ibid., ibid., ibid. • Department of The Environment (2016). Geophaps scripta scripta in Species Profile and Threats Database, Department of the Environment, Canberra. Available from: http://www.environment.gov.au/sprat. • Department of The Environment (2016). Geophaps scripta scripta in Species Profile and Threats Database, Department of the Environment, Canberra. Available from: http://www.environment.gov.au/sprat. • Department of Environment Water Heritage and Arts. 2009. National Koala Conservation and Management Strategy 2009 – 2014, Canberra. • Australian and New Zealand Environment Conservation Council (ANZECC). 1998. National Koala Conservation Strategy. Canberra, ACT: Environment Australia. • Sustainable Townsville, 2003, State of the Environment Report – Townsville. http://www.soe-townsville.org/index.html • Department of the Environment. 2014. EPBC Act Referral Guidelines for the vulnerable koala (combined populations of Queensland, New South Wales and the Australian Capital		

Reference Source	Reliability	Uncertainties
Territory), Commonwealth of Australia. • Mitchell, D. 2015. National Koala Tree Plating List, Australian Koala Foundation • Department of the Environment. 2016. Ardea ibis in Species Profile and Threats Database, Department of the Environment, Canberra. Available from: http://www.environment.gov.au/sprat. • Department of the Environment. 2016. Dichanthium setosum in Species Profile and Threats Database, Department of the Environment, Canberra. Available from: http://www.environment.gov.au/sprat. • Great Barrier Reef Marine Park Authority 2013, Haughton basin assessment: Burdekin dry tropics natural resource management region, GBRMPA, Townsville. • DEPARTMENT OF AGRICULTURE AND FISHERIES, https://www.daf.qld.gov.au/__data/assets/pdf_file/0004/54679/ipa-elephant-ear-vine-pp124.pdf, Accessed 12/2016. • DEPARTMENT OF AGRICULTURE AND FISHERIES, https://www.daf.qld.gov.au/__data/assets/pdf_file/0020/52544/IPA-Rubber-Vine-PP11.pdf, Accessed 12/2016 • BTFRT. National recovery plan for the black-throated finch southern subspecies Poephila cincta cincta. Report to the Department of the Environment and Water Resources, Canberra. Department of Environment and Climate Change (NSW), Hurstville and Queensland Parks and Wildlife Service, Brisbane. http://www.e		

Reference Source	Reliability	Uncertainties
nvironment.gov.au/system/files/resources/f164f090-6c72-4e29-a91b-0037b82f4250/files/p-cincta.pdf, 2007. • McCullough, M. & Payet, R. 2009. The Black-throated Finch Sighting Manual. Black-throated Finch Recovery Team, Townsville, Australia. • DEPARTMENT OF ENVIRONMENT WATER HERITAGE AND ARTS. 2009. National Koala Conservation and Management Strategy 2009 – 2014, Canberra. • DEPARTMENT OF THE ENVIRONMENT. 2014. EPBC Act Referral Guidelines for the vulnerable koala (combined populations of Queensland, New South Wales and the Australian Capital Territory), Commonwealth of Australia. • Great Barrier Reef Marine Park Authority 2013, Haughton basin assessment: Burdekin dry tropics natural resource management region, GBRMPA, Townsville. • State of Queensland, 2016, Great Barrier Reef report card2015, Reef Water Quality Protection Plan, State of Queensland, Brisbane. • Shannon, E. and McShane, T. 2013. Options for Tailwater Capture & Reuse in the Barratta Creek Catchment, A Scoping Study, Report to the State of Queensland Commissioned under the “Wetland Management in Agriculture Production Systems Program”. • Schaffelke, B., Anthony, K., Blake, J., Brodie, J., Collier, C., Devlin, M., Fabricius, K., Martin, K., McKenzie, L.J., Negri, A.P.,		

Reference Source	Reliability	Uncertainties
Ronan, M., Thompson, A. and Warne, M. 2013, Marine and coastal ecosystem impacts, in Synthesis of evidence to support the Reef Water Quality Scientific Consensus Statement 2013, Reef Water Quality Protection Plan Secretariat, Brisbane. • Kroon, F.J., Kuhnert, P.M., Henderson, B.l., Wilkinson, S.n., Kinsey-Henderson, A., Abbott, B., Brodie, J.E., Turner, R.D.R., 2012, River loads of suspended solids, nitrogen, phosphorus and herbicides delivered to the Great Barrier Reef lagoon, Marine Pollution Bulletin, vol 65, pp 167-181		

Section 8 – Proposed alternatives

You are required to complete this section if you have any feasible alternatives to taking the proposed action (including not taking the action) that were considered but not proposed.

8.0 Provide a description of the feasible alternative?

No alternatives are proposed.

Alternatives considered for the proposed action include:

i) Not taking the action;

ii) Reducing the area of the proposed clearing;

iii) Clearing the entire lot; and

iv) Move the development footprint to another area of the property.

Although options i) and ii) were considered, these were not considered as feasible alternatives, due to not being commercially viable for the proponent. Development of the remaining area on the Lot, or moving the development to another area of the property is not consistent with the proposed layout of the development for two reasons:

As part of the proposed action, a large conservation area is proposed to be retained and grazed using best management practices.The overall layout of the proposed development takes into account operationally efficiency for supplying, storing and reusing water for the farming operations.

For these reasons, although technically feasible alternatives exists, they are not considered to reduce or mitigate against the impacts of the porposed development.

8.1 Select the relevant alternatives related to your proposed action.

8.27 Do you have another alternative?

No

Section 9 – Contacts, signatures and declarations

Where applicable, you must provide the contact details of each of the following entities: Person Proposing the Action; Proposed Designated Proponent and; Person Preparing the Referral. You will also be required to provide signed declarations from each of the identified entities.

9.0 Is the person proposing to take the action an Organisation or an Individual?

Organisation

9.2 Organisation

9.2.1 Job Title

Director

9.2.2 First Name

Enrico

9.2.3 Last Name

Mio

9.2.4 E-mail

enrico@miocollege.com.au

9.2.5 Postal Address

1450 Barratta Road
Upper Haughton QLD 4809
Australia

9.2.6 ABN/ACN

ACN

162567035 - MIO COLLEGE PTY LTD

9.2.7 Organisation Telephone

0747827111

9.2.8 Organisation E-mail

enrico@miocollege.com.au

9.2.9 I qualify for exemption from fees under section 520(4C)(e)(v) of the EPBC Act because I am:

Not applicable

Small Business Declaration

I have read the Department of the Environment and Energy's guidance in the online form concerning the definition of a small a business entity and confirm that I qualify for a small business exemption.

Signature:..... Date: .....

9.2.9.2 I would like to apply for a waiver of full or partial fees under Schedule 1, 5.21A of the EPBC Regulations

No

9.2.9.3 Under sub regulation 5.21A(5), you must include information about the applicant (if not you) the grounds on which the waiver is sought and the reasons why it should be made

Declaration

I, ENRICO MIO., 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 of or for the benefit of any other person or entity.

Signature:..... Date: 3-2-17.

I, ENRICO MIO., the person proposing the action, consent to the designation of MIO COLLEGE PTY LTD as the proponent of the purposes of the action describe in this EPBC Act Referral.

Signature:..... Date: 3-2-17.

9.3 Is the Proposed Designated Proponent an Organisation or Individual?

Organisation

9.5 Organisation

9.5.1 Job Title

Director

9.5.2 First Name

Enrico

9.5.3 Last Name

Mio

9.5.4 E-mail

enrico@miocollege.com.au

9.5.5 Postal Address

1450 Barratta Road
Upper Haughton QLD 4809
Australia

9.5.6 ABN/ACN

ACN

162567035 - MIO COLLEGE PTY LTD

9.5.7 Organisation Telephone

0747827111

9.5.8 Organisation E-mail

enrico@miocollege.com.au

Declaration

I, ENRICO MIO., 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: ..... Date: 3-2-17

9.6 Is the Referring Party an Organisation or Individual?

Organisation

9.8 Organisation

9.8.1 Job Title

Director and Principal Environmental Consultant

9.8.2 First Name

Nicholas

9.8.3 Last Name

Baker

9.8.4 E-mail

nicholas.baker@wildenvironmental.com

9.8.5 Postal Address

Australia

9.8.6 ABN/ACN

ABN

91610317327 - MILFORD BAKER PTY LTD

9.8.7 Organisation Telephone

(07) 44109000

9.8.8 Organisation E-mail

info@wildenvironmental.com

Declaration

I, Nicholas Baker, I 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:..... Date: 03/02/2017