COPPERSTRING 2.0

BASE/

CopperString 2.0

Response to submissions on Draft EIS and Draft EIS Supplement

Volume 4 Attachment A

Contents

1.0 Submission Responses

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1	22.12.2020	Council	Richmond Shire Council	Email	17.02.2021
2	22.12.2020	Council	Flinders Shire Council	Email	17.02.2021
3	29.01.2021	Organisation	Regional Development Australia Townsville and North West Queensland	Citizen Space	17.02.2021
4	27.01.2021	Agency- State	Department of Employment, Small Business and Training	Email	17.02.2021
5	04.02.2021	Council	Charters Towers Regional Council	Email	17.02.2021
6	08.02.2021	Agency- State	Department of Education	Email	17.02.2021
7	09.02.2021	Private Submitter		Citizen Space	17.02.2021
8	08.02.2021	Agency- State Private submitter		Email	17.02.2021
9a	10.02.2021	Agency- State	Department of State Development Infrastructure, Local Government and Planning	Email	17.02.2021
9b	10.02.2021	Agency- State	Department of State Development Infrastructure, Local Government and Planning	Email	17.02.2021
10	11.02.2021	Private Submitter	Donnie Harris Law	Email	17.02.2021
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25	15.02.2021	Agency- Commonwealth	Department of Agriculture, Water and the Environment	Email	17.02.2021
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27	09.02.2021	Agency- State	Department of Transport and Main Roads	Email	17.02.2021

1.1 Submission comments and responses

Submission 1 – Email
Issue: *Acknowledgement of Support*
Date: *22-12-2020*
Submitter: *Richmond Shire Council*
Comment: Good morning, Richmond Shire Council has no issues with the EIS and wish CopperString well in their endeavors to get this project Underway, it will be good for the whole region.
Response: Noted, no action required

Submission 2 – Email
Issue: *Letter of Support*
Date: *22-12-2020*
Submitter: *Flinders Shire Council*
Comment: Council would like to acknowledge you letter dated 17 December 2020 seeking feedback on the draft Environmental Impact Statement (EIS) for the CopperString Project. Following review of the draft Environmental Impact Statement (EIS), Council advises that we are in full support of the CopperString Project. The project will become a major employment creator for the rural and remote towns within the project area and will support the future of these communities.
Response: Noted, no action required

Submission 3 – Citizen Space
Issue: *Notice of Support*
Date: *29-01-2021*
Submitter: *Regional Development Australia Townsville and North West Queensland*
Comment: Regional Development Australia Townsville and North West Queensland (RDA) writes in strong support of the development of the CopperString Project. We believe CopperString has engaged widely over several years to develop the Project and the draft EIS. RDA has long supported this Project as it addresses a critical economic infrastructure gap in the region and will drive both direct and indirect construction and operational jobs impacts in the short term and in the longer term we are confident it will significantly enhance the growth of mining and agriculture in the region due to the lower energy costs the project will deliver. Townsville to Cloncurry and Mount Isa is a major economic corridor of national significance. It links the minerals rich North West Minerals Province and its miners and processors to global markets. It links the cattle and agricultural producers to both international and domestic markets. By enhancing electricity infrastructure, this Project will help build the economic resilience and sustainability of the region. RDA has incorporated the CopperString Project in the Townsville and North West Queensland Economic Recovery and Growth Strategy 2020-2030. (Refer: https://www.rdanwq.org.au/wp-content/uploads/2021/01/RDA-Townsville-and-NWQ-Economic-Recovery-and-Growth-Strategy-2020-2030.pdf) RDA has also facilitated and advocated to key stakeholders to support CopperString.
Response: Noted, no action required

Submission 4 – Email
Issue: *Notice of Support*
Date: *27-01-2021*
Submitter: *Department of Employment, Small Business and Training*
Comment: While the environmental impacts, assessments and proposed management measure for the project are not within the scope of the Department of Employment, Small Business and Training (DESBT), the detailed analysis of the social and economic dimensions of the project provides valuable insights relating to DESBT responsibilities. I note that the project will generate substantial employment during the construction phase. Although the ongoing direct employment associated with the project is relatively modest, it has the potential to serve as an enabler for considerable additional job creating investment in North Queensland, particularly in the mining and renewable energy industries. DESBT welcomes the proponent's intention to develop a training education and employment program, including the emphasis placed on employability, apprenticeships and traineeships, and employment outcomes for Indigenous people. Many of the project roles would require skills and capabilities that would be readily transferable to other regional jobs or projects. Officers from my Department may be able to advise on aspects of the program's development. I also note that the Proponent intends to establish a supplier portal using the Industry Capability Network to allow potential suppliers to register their details and interest in the project. By sharing this information with major contractors tendering for work on the project, the proponent will provide a crucial opportunity for small and medium Queensland businesses to have early engagement with the project, which is critical factors in optimizing local content.
Response: Noted, no action required

Submission 5 – Email
Issue: (*5.01) Land acquisition and tenure*
Date: *04-02-2021*
Submitter: *Charters Towers Regional Council*
Comment: There is no rationale provided as to how affected landowners will be engaged during land acquisition.
Response: Volume 3 Attachment E Land Acquisition Protocol provided a detailed step by step engagement and negotiation process with landholders. This process is ongoing and continuing. Each individual land holder has a dedicated land agent. No further information is required.

Submission 5

Issue: (*5.02) Project Description*

Date: *04-02-2021*

Submitter: *Charters Towers Regional Council*

Comment: Mention of using either Lattice or Monopole Towers, however little discussion as to which is preference. If Monopole, Towers were the preferred design, this may result in reduced amenity impacts for property owners.

Response:

Volume 4 Attachment B Revised Project Description identifies the conceptual design is based on steel lattice transmission towers with monopoles being considered where appropriate. Monopoles are being considered at a few specific locations namely for the Chumvale to Dajarra Road (4km) section, Dajarra to Dugald River section and near the new Mount Isa substation which is within close proximity to the Mica Creek power station and where customer connections from the Mount Isa substation are required. No other locations have been identified whereby the use of monopoles would be required to address any loss of amenity or impact to a sensitive receptor.

Submission 5

Issue: *(5.03) Management Plans*

Date: *04-02-2021*

Submitter: *Charter Towers Regional Council*

Comment:

- Council requested to be consulted during the preparation of any Road Use Management Plans for local roads
- Due to mentioned impacts of bushfire on the project, recommended that throughout the various stages, Bushfire Management Plans are prepared and implemented

Response:

The preparation and development of a Road Use Management Plan and Traffic Management Plans will be developed in consultation with local councils and TMR.

A bushfire management plan was a proponent commitment and has been developed by the Construction JV for the project and is included in Volume 4 Attachment I Additional Management Plans and Commitments Register.

Submission 5

Issue: *(5.04) Employment*

Date: *04-02-2021*

Submitter: *Charters Towers Regional Council*

Comment: Clarify number and types of roles expected to be procured internationally and why it is anticipated that skills for transmission line construction will be resource constrained during the recruitment phase of the project

Response:

CopperString and the Joint Venture Contractor are committed to maximising Australian content across every aspect of the Project. The Project's ability to secure Australian products and services is even more important in the current and post COVID-19 environment.
Opportunities to stimulate the local, regional and national economy will be a focus of the procurement strategy. The Joint Venture procurement strategy has developed the following plans:

- Local Industry Participation Plan
- Local and Indigenous Employment Engagement and Training Plan
- Procurement and Logistics Management Plan.

These plans are included as part of the Final EIS. The Local Industry Participation Plan has been designed to ensure appropriate engagement with local communities to enhance regional economies through local procurement where cost effective to do so and to ensure compliance with the local industry participation outlined in the CopperString 2.0 Procurement Plan and Corporate Policy, reflecting State and Federal Government Procurement Policy requirements.

The Joint Venture party anticipates that 100% of roles will be sourced from within Australia including employees from local areas, regional areas, Queensland and interstate. This will include a mixture of the JV partners direct employees, specialist subcontract resource partners and training of local personnel who may possess the right skills. This will give the added benefit of long-term employment for locals during the Operations and Maintenance phase of the project. Specialised works associated with the line and substation delivery such as stringing, and tower assembly and erection will predominantly be supplied from internal resource pools and supported by subcontract partners.

The importance of utilising internal resources for specialised services is critical to the alignment of Safety culture and quality expectations from project commencement. This also enhances early efficiency gains for the Project's benefit. Civil related services such as bulk earthworks, drilling, foundations and access and clearing will be procured from a mixture of specialised delivery partners.

From a procurement perspective, with over 100 local and regional subcontractors and suppliers approached during the construction tender period, the Construction JV estimates the level of Australian content in the procurement of goods and services to be approximately 72%. This figure is somewhat skewed and is estimated to be circa 90% when Powerlink's preferred supplier requirements and exclusive overseas products (e.g. HV Transformers, Synchronous Condenser) are discounted.

Submission 5

Issue: *(5.05) Project Description*

Date: *04-02-2021*

Submitter: *Charters Towers Regional Council*

Comment:

- Council supports statements for workers camps to be established in townships of Charters Towers and Pentland
- Workers camps are estimated to hold 350 workers at both the Charters Towers and Pentland camps however exact camp locations not provided. Council requests consultation as to the location of these camps
- Table 14.1 identifies workers camps will operate for 7 months in Charters Towers and 14 months in Pentland. It is unclear whether workers camps will be required during the maintenance of the project

Response:

The Construction JV has developed an Accommodation Management Plan which is included as part of the additional information in the Final EIS. Preliminary discussions have been undertaken with Council to commence the negotiation of camps locations within Local Government Area including preliminary phone discussions in September 2020 and during the consultation process as part of the publication of the draft EIS.

Since the submission of the draft EIS indicative construction camp locations have been nominated including Charters Towers camp on Gregory Development Road approximately 10km south of Charters Towers and

Pentland Camp on the Flinders Highway near the Campaspe River crossing (west of Homestead Lascelles Road) approximately 80km east of Pentland.

Since the submission of the EIS, Charters Towers Council has been contacted to engage on camp locations, however, due to changes in personnel within the Council, discussions at this stage have been unable to be progressed. CopperString will continue to engage with Council.

Non-resident workforce accommodation developed for the construction phase of the project will be decommissioned.

The operational workforce is expected to live locally or utilise existing short term accommodation options intermittently as required.

Submission 5

Issue: *(5.06) Rehabilitation*

Date: *04-02-2021*

Submitter: *Charters Towers Regional Council*

Comment: Unclear whether cleared vegetation will be rehabilitated once project is operational

Response:

Rehabilitation of ground disturbance will occur in accordance with the Volume 3 Attachment T Concept Rehabilitation Plan table 3-1. Most clearing of woody vegetation to facilitate the transmission line infrastructure will result in limited ground disturbance that would trigger rehabilitation. Electrical clearance zones around the overhead conductors will be maintained to prevent vegetation grow-in to the space the conductor can occupy under all wind conditions – swing/blowout with wind and expansion and contraction with changes in conductor temperature. Electrical clearance zones will also consider vegetation falling onto the conductor. Fall-in zones will also be considered for vegetation around the towers.

Submission 5

Issue: *(5.07) Waste Management*

Date: *02-04-2021*

Submitter: *Charters Towers Regional Council*

Comment: Unclear whether the Charters Towers and Pentland waste facilities will both be used for the disposal of waste. Anticipated volumes of waste to be created by the project is also unclear

Response:

The Construction JV has developed a Waste Refuse Disposal Management Plan (Volume 4 Attachment I Additional Management Plans and Commitments Register). This plan estimates volumes of material and waste types expected during construction. Expected volumes at each identified facility are currently not available.

Submission 6 – Email

Issue: *Notice of Support and Impact Prevention*

Date: *08-02-2021*

Submitter: *Department of Education*

Comment: The department has no objection to the proposal, subject to conditions being included in any approval package for the project, to ensure any construction and operational impacts to schools are appropriately avoided, and where avoidance is not possible, managed and mitigated. The identified potential impacts of the project to schools include:

- Potential for heavy vehicles travelling either in school zones, or along school bus routes (or both) - It is recommended that conditions be imposed to ensure that construction vehicles minimise the use or local or state roads in the vicinity of schools or where school bus routes are located. Where haulage of materials/construction routes pass by, or in close proximity to schools zones or impact school bus routes, it is recommended that this be avoided between 7.30am to 9am and 2.30pm to 4pm on school days. Where it is not possible to avoid these times, it is requested that engagement with the Department of Education occurs to ensure appropriate controls are put in place if required, in consultation with the impacted schools and bus transport providers. This requirement should be included as a specific requirement of any Construction Environmental Management Plan (CEMP).
- Potential for construction activity to impact air and noise quality to schools: - It is recommended that conditions be imposed on the project to ensure that the construction and ongoing operational phases of the project do not adversely impact on the air and noise quality at schools. For example, construction could result in increased dust and noise at schools if conditions relevant to sensitive receptors (schools) are not included in the approval. It is not expected, given the proximity of the project to schools, that it will be difficult to achieve the required air quality objectives. However if it is identified that a school (or schools) may be adversely impacted by altered air and noise quality conditions as a result of the project, it is requested that engagement with the Department of Education occurs to ensure appropriate consultation with impacted schools, clearly identifying the duration and severity of the impact and measures required to minimise or mitigate these impacts. The department would also like to remain a relevant stakeholder during any engagement for this project, including where required for any subsequent approvals or required project management plans and the like. Also, should the proposal be amended in any way, the department would like to be advised of, and be given opportunity to review changes to the project to ensure the state interests for education are appropriately considered

Response:

Noted, no action required

Submission 7 – Citizen Space

Issue: *(7.01) Habitat Loss*

Date: *09-02-2021*

Submitter: *Private Submitter*

Comment: Chapter does not address issues raised by submission #3997 - section 1 - Summary of your proposed action (in regard to the Rochford Scrub and Tuckers Range) "the potential impacts on these natural areas will be further investigated as part of EIS studies and appropriate mitigation measures."

Qld Museum conducted studies in 2009 in Rochford Scrub and discovered new species (Lerista Rochfordensis) which is closely related to a skink found 5km east in the Barrabas Scrub. There has been no research done in the Tuckers Range Scrub in regards to the Lerista population. This Scrub is approximately 6 kms NNW of the Rochford Scrub. My concern is the fragmenting of these two ecosystems by the Copperstring project. Severing the connection between these two protected softwood scrubs may have future implications by halting the migration of flora and fauna. There is evidence of softwood species ie "Scrub Wilga," growing outside the main scrub areas among the Eucalypt woodland which I believe creates a small but evident connection between the two sensitive areas.

There seems to be some conjecture as there is no evidence of further investigation as part of the EIS study. We have to take into account that the Lerista Rochordensis is a newly discovered species that is classified vulnerable and "prone to the effects of human activities or stochastic events within a very short time period in and uncertain future, and is thus capable of becoming endangered or extinct in a very short time period." Memoirs of the QLD Museum/Nature. There are implications in the document provided by Copperstring [Option for Grant of an Easement.] indicating they "may assign the whole or any part of its interest in the easement to any person in its absolute discretion without the consent the landholder." This I believe opens the door to the unknown in regards to environmental issues. For example the introduction of the highly invasive non-native

Grader Grass and/or Thatch Grass which has colonised areas under the high voltage power line running through to Townsville. This is the line that the Copperstring Project will commence from. These grasses are not very palatable to livestock and due to their invasive nature will take over native pasture. The above mentioned Scrubs have a very sparse ground cover due to the sandy based soil but have a cover of leaf litter and plant material . This is the natural habitat of the Lerista skink. If these not native grasses take over these sensitive areas the results of a fire will be catastrophic because of the huge fuel load. This could change the bio-diversity of the ecosystem resulting in the possible extinction of this vulnerable species as well as irreparable damage to the flora and fauna within the scrub.

Response:

The transmission corridor selection does pass between Rochford Scrub and the Tuckers Range Scrub near the Burdekin River. However, at this location the easement is more than 2km from both of these areas. Ecological assessments have confirmed that no impacts to the *Lerista Rochfordensis* are anticipated as a result of the project.

Extract from the publication referred to by the submitter - *Memoirs of the QLD Museum/Nature 61 - Range extension and genetic structure of the narrowly restricted slider skink, Lerista rochfordensis, Amey and Couper, 2009 (Reptilia: Scincidae)* -" Preclearing maps show that Rochford and Barrabas Scrubs were isolated from each other by low open Eucalypt woodland prior to European modification of the landscape. The populations of Lerista within Rochford and Barrabas are distinct from each other but the low level of distinctiveness suggests they have only recently diverged. This appears to be an example of the early stages of allopatric speciation in response to vicariance. When present, Lerista can be common but their ability to migrate between patches of suitable habitat is likely to be limited. This can lead to the appearance of healthy populations which are nonetheless naturally fragmented and vulnerable to habitat destruction."

Expected environmental management mitigation measures have been included within the Projects Framework EMP to address all flora and fauna species. Avoidance of this area is not justified and not achievable as it would require a significant corridor realignment well outside of the endorsed investigation buffer / study area as defined in the Project Terms of Reference.

Submission 8 – Email

Issue: *Project Title*

Date: *08-02-2021*

Submitter: *Private Submitter*

Comment: Please use a sensible name for this powerline or transmission cable, not copperstring or wirerope as this has an impact across vast regional areas. I almost covered this route when I was riding my bike to Cairns for work when I was 17, and I will not be harassed by politicians trying to outsmart people trying to be this childish and harrass people with their gold and copper dreams.

Response:

Noted, no action required

Submission 9a – Email

Issue: *(9a.01) Legislative requirements*

Date: *10-02-2021*

Submitter: *Department of State Development, Infrastructure Local Government and Planning - (EDQ)*

Comment: Minister for EDQ owns land at Mica Creek (south of Mount Isa): Lot 2 on SP222005, Lot 4 on SP222005 and Lot 5 on SP222005. The EIS study areas covers Lot 2 and Lot 5.

Lot 2 has the following planning overlays that may hinder development:

- Native vegetation clearing - Regulated vegetation management map (Category A and B extract)
- State transport corridor - railway corridor
- Areas within 25m of a State transport corridor - within 25m of a railway corridor

These factors will not prevent the project but will need to be addressed.

Response:

All of these aspects have already been suitably addressed in detail within Volume 2 Chapter 5 Land, Chapter 7 Flora and Fauna and Chapter 13 Transport. No further response required.

Submission 9a

Issue: *(9a.02) Cultural Heritage*

Date: *10-02-2021*

Submitter: *Department of State Development, Infrastructure Local Government and Planning - (EDQ)*

Comment: Lot 5 on SP222005, on the northern section of Lot 2, was created to protect historic and cultural artefacts. Lot 5 will need cultural heritage to be managed and assessed in conjunction with the Kalkatungu (Kalkadoon Aboriginal Corporation RNTBC).

Response:
A cultural heritage management agreement for the purpose of assessing management impacts associated with the project has been negotiated and executed with the Kalkatungu (Kalkadoon Aboriginal Corporation RNTBC). A Cultural Heritage Management Plan will be registered for this area of the Project prior to commencement of construction related activities. All activities within or near this area will be undertaken in accordance with this Plan. No further response required.

Submission 9b – Email

Issue: *(9b.01) Approvals*

Date: *10-02-2021*

Submitter: *Department of State Development, Infrastructure Local Government and Planning (DSDIGLP)*

Comment: Section 4.2 Project approval pathway states '*The request will seek the Ministers' approval for the Project to be assessed under a streamlined approach. This is the most efficient pathway to obtain the necessary land use planning approvals within the seven local government areas (LGAs). It is also anticipated that this process will be utilised to seek other permits and approvals coordinated under the Planning Act.*'

Planning Group notes:

- there is no longer a "streamlined" process
- recommends referring to the 'Minister's Guidelines and Rules' (MGR) which sets out the Ministerial Infrastructure Designation (MID) process. Further information can also be found in the 'Guidance for the Minister's Guidelines and Rules: Guidance for Plan–Making'.

Amendments to the MGR in November 2020 included adopting the previously titled 'streamlined' process as the standard process for MIDs.

Application of a MID makes development accepted for the purposes of the Planning Act 2016 (the Planning Act). Technically, permits and approvals are not obtained through a MID but the need to obtain them is negated should the MID be made. Building works approvals under the Building Act 1975 are still required despite any MID.

Response:

Noted. Volume 4 EIS Supplement Chapter 4 Section 4.2 Additional Information Legislation and Approvals reflects this advice and other ongoing consultation with DSDILGP regarding the Ministerial Infrastructure Designation (MID) process.

Submission 9b

Issue: *(9b.02) Terminology*

Date: *10-02-2021*

Submitter: *Department of State Development, Infrastructure Local Government and Planning*

Comment: Planning Group recommends the following amendment
'…the EIS is to include sufficient information to address all aspects required by the ~~Environmental Assessment Report~~ Ministerial Infrastructure Designation proposal highlighting environmental values, potential impacts and mitigation measures'.

Response:

Noted. Volume 4 EIS Supplement Chapter 4 Section 4.2 Additional Information Legislation and Approvals reflects this advice and other ongoing consultation with DSDILGP regarding the MID process.

Submission 10 – Email

Issue: *(10.01)*

Date: *11-02-2021*

Submitter: Private Submitter

Comment: Submission made on behalf of owners of Lot 2, CP EN13, Title Reference 17650161 and Lot 2 on CP EN 25, Title Reference 17653222.

The proponent is not acting fairly in determining the valuations and easement price calculations. The methodology in clause 4.6 of the Land Access Protocol fails to take into account other heads of compensation that would be usually payable and considered in determining compensation including disturbance, severance, inconvenience, legal costs, valuation costs and the like. The valuation mechanism refers to a desk top assessment which will not give landholders a fair or accurate compensation payment. There is no mechanism for taking into account the blot on title and the future impact on the value of the property. The powers given to the proponent under its proposed easement terms (e.g. the power to fence the area etc) and the foreseeable restrictions arising on the use of the balance of the land, should also be considered as part of determining the compensation that is paid to the landholder.

There is no mechanism for determining the disturbance costs during construction. For example, although the index refers to "4.8 Consequential loss during construction" the clause 4.8 itself heading has been changed and the paragraph does not in any way deal with consequential loss. The protocol fails to provide a fair and reasonable basis for landholders to negotiate the easement terms and compensation. Rather, it appears that the proponent has prepared these documents on a take it or leave it basis. There is no genuine mechanism in the protocol for consultation, independent legal advice and negotiation of compensation. Our client is concerned with the landholder documentation and its terms to date and the failure to ensure that compensation is being determined by reference to usual methods taking into account all disturbance and foreseeable impacts arising. There has been no genuine attempt by the proponent to encourage landholders to engage independent solicitors, valuers and agronomists at the cost of the proponent to assist in such calculations. The Land Access Protocol should clearly confirm that the proponent will pay all legal fees, accounting, valuation and agronomist fees incurred by landholders in negotiating compensation.

Response:

The valuation and compensation of land affected by the Project is not a matter for the EIS process. CuString, has established a property valuation and compensation calculation process that is independent of CuString. CuString has identified to property owners that costs for an independent valuation will be met by CuString. No further response required.

Submission 10 – Email
Submission 10
Issue: *(10.03) Potential Impacts*
Date: *11-02-2021*
Submitter: *Private Submitter*
Comment: The health impacts on humans and the possible impacts on animals particularly livestock do not appear to have been adequately canvased or researched in the material. The environmental management plan should require the proponent to adopt best practice at all times during the life of the project to ensure that there is no environmental harm caused to the environment or any adjoining land.
Response: Volume 3 Appendix AC Electro-magnetic-field specialist study was prepared as part of the CopperString 1.0 Project. This report was reviewed recently and deemed acceptable for the CopperString 2.0 project.
Submission 10
Issue: *(10.04) Landholder Impacts*
Date: *11-02-2021*
Submitter: *Private Submitter*
Comment: Concerns regarding future impacts and the easement terms, with requested changes to the easement terms.
Response: The terms of easement documents of land affected by the Project is not a matter for the EIS process. CuString, will raise this in further discussions with the landholder during easement negotiations. No further response required.

Submission 11 – Email
Issue: *(11.01) Resource Sterilisation*
Date: *11-02-2021*
Submitter: *Department of Resources*
Comment: (Chap 5, pg 87, section 5.4.8 - land acquisition & Appendix E, p.g. 11, section 4.11 - overlapping tenure) Impacts to, and possible sterilisation of mineral resources within the proposal area are addressed in the draft EIS: *'The proposed easement and infrastructure associated with Copperstring has the potential to place constraints on the activities able to be undertaken by overlapping or adjacent existing granted tenure holders. Impacts to, and possible sterilisation of mineral resources within the proposal area are to be addressed in the preliminary draft EIS"*
Response: Mining tenements have been contacted and consulted. All tenement owners were notified of the publication of the Draft EIS including links to the Draft EIS and advice on making submissions. Consultation with tenement owners has been ongoing and, in some instances, tenements have requested changes to the alignment. These changes were captured in Volume 3 Attachment D Corridor Selection Report. Further changes to the alignment

have been made a result of the submissions process and these can be found in Volume 4 EIS Supplement Section 4.1 Changes to the Project Description.

Submission 11

Issue: *(11.02) Land Acquisition and Tenure*

Date: *11-02-2021*

Submitter: *Department of Resources*

Comment: (Chap 3, pg 7 and Chapter 4, pg 10 and Appendix I, pg 10)
Chapter 3 of the draft EIS states that the project traverses 133 land parcels. Whereas in Chapter 4 and Volume 3, Appendix I states the project traverses 132.

Detail regarding land parcels affected by the project must remain consistent throughout the entire document. Additionally, the proponent should ensure description of any affected parcels is accurate and consistent with any discussions occurring directly with the Department of Resources.

Reason

Approvals under the Land Act 1994 are required to facilitate the proposed development. Applications to the Department of Resources will be required for;

a) easements over state-controlled land for the proposed transmission line route, and
b) term leases for business/commercial purposes over the areas of state-controlled land proposed to be developed for the substations.

If any of the substations are proposed to be located within existing land tenures, surrender/excision from the land tenures will be required to enable a term lease to be granted. Consideration will be required for the substations sites to have access, either via dedicated road or registered easement access.

The Department of Resources is working with legal representatives of CopperString 2.0 to secure necessary tenure/authority for the proposed development.

Response:

An updated register of Impacted Land Parcels has been provided in the Volume 4 EIS supplement Section 4.3 Additional Information Land. This register was generated from the Department of Resources most recent cadastral data (DCDB).

A comparison between the two registers shows that 7 parcels of land have been removed from the impacted land parcels since the draft EIS was published. 1 additional parcel of land has been added to the list of impacted land parcels. 124 land parcels are now impacted by the CopperString transmission line.

Submission 11

Issue: *(11.03) Terminology /typographic error*

Date: *11-02-2021*

Submitter: *Department of Resources*

Comment: Machinery of Government changes have affected the name of the department administering the Vegetation Management Act 1999. To avoid any confusion relating to the administering authority for the Vegetation Management Act 1999 and other acts, up to date changes of the department name should be included in documentation.

Response:

Noted refer Volume 4 EIS Supplement Section 5.0 Editorial Corrections

Submission 11

Issue: *(11.04) Approvals*

Date: *11-02-2021*

Submitter: *Department of Resources*

Comment: (Chap 1, pg 20, Table 1.1 - Key Post EIS approvals)
The table of key post-EIS approvals should clarify the requirement for a Relevant Purpose Determination under section 22A of the Vegetation Management Act 1999. Any application (other than Reconfiguring a Lot) involving clearing vegetation (defined by the VMA) under the Planning Act must be accompanied with a Relevant Purpose Determination under the VMA.

Response:

Noted refer Volume 4 EIS Supplement Section 5.0 Editorial Corrections

Legislation	Project phase	Relevant activity
Operational Work/**Material Change of Use** – Vegetation clearing *Vegetation Management Act 1999* (VM Act) ***Planning Act 2016***.	Pre-construction	~~Vegetation clearing (if not exempt)~~ **Clearing for the development must be determined to be for a Relevant Purpose under the VM Act before any authorising activity under the *Planning Act 2016* may be lodged.**

Submission 11

Issue: *(11.05) Salinity*

Date: *11-02-2021*

Submitter: *Department of Resources*

Comment: (Chap 6, pg 44)
The report identifies the potential impacts of salinity without proposing measures to avoid or mitigate project impacts. The report could link to the SDAP State Code 16 assessment response in relation to PO22 (discussed further below); considering the presence of salinity indicators such as plant species tolerant of saline conditions, soil scalding, dieback of larger trees in low wetter parts of the landscape, salt accumulations and areas of shallow groundwater. Given the size of the project area, a Salinity Management Plan may be appropriate to ensure the project does not contribute to or accelerate land degradation through waterlogging, or through the salinisation of groundwater, surface water or soil.

Response:

The Project is expected to have a very low physical impact on landforms and soils generally and where appropriate mitigation measures will be implemented to manage potential risks including risks associated with salinity. Excavations for the Project are not anticipated to reach depths that will impact groundwater or result in waterlogging. Alteration of hydrological regimes or groundwater interactions are unlikely to result from the construction or operation of the Project. Therefore, a Salinity Management Plan has not been prepared due to the low risk and the ability of other management plans to suitably mitigate.
Commitments to manage potential impacts to soils including salinity are:

- Develop and implement an erosion and sediment control plan
- Develop and implement a vegetation management plan
- Develop and implement a rehabilitation plan.

Submission 11

Issue: *(11.06) Terminology/typographic error*

Date: *11-02-2021*

Submitter: *Department of Resources*

Comment: (Chap 20, page 16 - Flora and Fauna (including matters of national environmental significance))
A minor typographical error in the name of the Vegetation Management Act 1999 should be corrected.

Response:

Noted. Volume 4 EIS Supplement Section 5 Editorial Corrections

Submission 11

Issue: *(11.07) Mapping*

Date: *11-02-2021*

Submitter: *Department of Resources*

Comment: (Chap 7, pg 4)

Within this section of the report, various data sources/mapping is indicated. However, the full suite of Vegetation Management mapping isn't referenced in this section, and as there are similarly named state mapping references (such as DNRME Watercourse Mapping' and 'Essential Habitat Mapping') under legislation other than the VMA, clarity should be provided. Vegetation Management mapping should be grouped together, particularly as they are all related to the SDAP State Code 16 assessment.

The report should also acknowledge that mapping current at the time of lodgment will be used in assessment.

Response:

Amend Text as follows within section 7.2.2 Desktop Assessment (delete strikethrough, **add bold):**
'~~Regulated~~ Vegetation Management ~~M~~mapping – The Department of ~~Natural~~ Resources ~~, Mines and Energy (DNRME) Regulated~~ Vegetation Management ~~M~~maps ~~(version 3.07) and Vegetation Management Regional Ecosystem and Remnant Map spatial layer (version 11) was~~ **were reviewed, to** determine the extent and type of i**mpacts to** ~~regulated~~ vegetation categories **regulated under the Vegetation Management Act 1999.** ~~and regional ecosystems (REs) mapped within the study area.~~ **Vegetation Management mapping current at the time a development application is lodged with the assessment manager will be used in the assessment of proposed clearing and includes the Regulated Vegetation Management (RVM) map, Regional Ecosystem (RE) map, Essential Habitat (EH) map, Wetlands map, Watercourse and Drainage Feature map (1:100000 and 1:360000), and the Pre-clear Regional Ecosystem map.**

Submission 11

Issue: *(11.08) Vegetation Clearing*

Date: *11-02-2021*

Submitter: *Department of Resources*

Comment: It is noted that the project covers a long width of part of the northern Queensland landscape, and there are applicant expectations for different vegetation management methods depending on site features and project requirements. Vegetation clearing applications require detailed consideration of multiple elements to satisfy performance outcomes of SDAP State Code 16. For applications of this scale, it is highly recommended that digital data in an ESRI compatible format be provided to enable a timely, informed and accurate assessment of the proposal.

Response:

Noted. Detailed plans will be provided to satisfy performance outcomes of State Code 16 and SHP files will be provided as requested.

Submission 11

Issue: *(11.09) Terminology/typographic error*

Date: *11-02-2021*

Submitter: *Department of Resources*

Comment: To avoid any confusion, and to ensure rehabilitation can be properly considered as a method to avoid and minimise adverse impacts of clearing, the correct reference to pre-clear mapping should be used.

Response:

Pre-clearance vegetation mapping used the current Department of Resources – Vegetation management pre-clear regional ecosystem map (version 11.0) and the Vegetation Management Regional Ecosystem and Remnant Map spatial layer (version 11.0).

Submission 11

Issue: *(11.10) Vegetation clearing*

Date: *11-02-2021*

Submitter: *Department of Resources*

Comment: (Appendix N, pg 69, SDAP assessment, State Code 16)

A number of matters require further consideration in relation to the assessment of the adverse impacts of vegetation clearing under SDAP State Code 16. The recommendations are provided to enable an accurate assessment of clearing impacts in an informed and efficient manner.

Response:

Noted. Volume 4 EIS Supplement Section 4.5 Additional Information MSES has been updated to address vegetation clearing under State Code 16.

Submission 11

Issue: *(11.11) Terminology/typographic error*

Date: *11-02-2021*

Submitter: *Department of Resources*

Comment: References have been throughout made to specific versions of the State Development Assessment Provisions (SDAP), Regulated Vegetation Management Map, Vegetation Management Regional Ecosystem Map, Vegetation Management Essential Habitat Map, Vegetation Management Wetlands Map and/or Vegetation Management Watercourse and Drainage Feature Map.

The State Development Assessment Provisions version current at the time the development proposal is lodged with the assessment manager will be used in assessing the application. While the versions described in the preliminary draft EIS may currently be correct, the State Development Assessment Provisions and/or vegetation mapping may change before a properly made development application is lodged. Additional words should be included to acknowledge that the application will be assessed against the State Development Assessment Provisions and vegetation mapping that apply at the time of lodgment.

Response:

Noted.

Submission 11

Issue: *(11.12) Project configuration*

Date: *11-02-2021*

Submitter: *Department of Resources*

Comment: The Department of Resources requires information regarding the location and extent of all clearing required for infrastructure associated with the project. This should be clearly identified on the development plans/site layout, as well as the digital data (see comments on digital data elsewhere in this advice). The site layout should include details of infrastructure and associated works required for the project including, but not limited to:

• borrow pits, access tracks, transmission towers, substations, laydown areas, construction camps, communication huts, brake and winch sites, concrete batching areas and fly yards.

It is noted, however, that clearing may not be required to facilitate some aspects of the development, and that some areas of clearing may be exempt or accepted development. A clear plan demonstrating the temporary and permanent assessable clearing footprint should be provided.

The site layout should demonstrate that clearing to establish a firebreak and safety buffer around built infrastructure has been considered. If a Material Change of Use development application is required, a firebreak and safety buffer will be assessed at 1.5 times the height of the tallest vegetation next to the infrastructure, or 20m, whichever is the greater. If no alternative evidence is provided, the Department of Resources will assess firebreaks and safety buffers based on the relevant regional ecosystem description.

Response:

Volume 4 Attachment D Revised Concept Infrastructure Layout Plans provides updated drawings of indicative layouts of substations, CEV huts, camps and laydown areas, transmission towers brake and winch sites and access tracks including. Volume 4 Attachment C Concept Tower Siting Plans provides a concept plan of how clearing will be managed across the alignment. Shape files of the project footprint will be provided to the department as part of the EIS process.

Submission 12 – Email

Issue: *(12.01) Social impacts*

Date: *11-02-2021*

Submitter: *Planning and Performance Queensland Police Service*

Comment: As identified in the EIS, the potential social impacts to emergency services during construction are confirmed, including:

- increased demand for police and emergency services: the non-resident construction workforce would generate some level of temporary demand for emergency services, especially in towns where the construction camps will be located
- compromised capacity: the potential need for emergency services within the construction workforce may compromise the capacity to service the existing community

Given the operational workforce is anticipated to be existing residents (30 personnel), it is acknowledged that the operational workforce is not expected to increase demand on emergency services. The management measures proposed in the EIS to address the potential impacts to emergency services during construction are supported.

Response:

Noted. CuString will engage with emergency services to address concerns. In addition, the JV Contractor has developed an Interface Management Plan and Community Liaison Management Plan which outlines how the constructor will engage with different stakeholders during construction of CopperString2.0. Refer Volume 4 Attachment I Additional Management Plans and Commitments Register.

Submission 12

Issue: *(12.02) workforce management*

Date: *11-02-2021*

Submitter: *Planning and Performance Queensland Police Service*

Comment: A self-sustaining worker camp will be set up in Richmond in March 2022 and house 350 workers for at least 6 months to build CopperString infrastructure in the Richmond area. The line will run approx. 35km south of the current line with no substations in the Richmond division.

Pentland has a divisional population of approx. 500 pax, however only approximately 250 reside in the township. The proposed workcamps will provide accommodation for 350 workers. At this stage, there has been no decision about the location of this camp – whether that would be in town, or out of town.

A Self-sustaining worker camp will be set up in Julia Creek in March 2022. This camp will house 350 workers for at least 10 months. Issues include increase in service calls to disturbances and similar issues for licensed premises.

Response:

Camp locations are currently under discussion and the relevant agencies will be engaged to ensure safety concerns are addressed. The construction JV has developed the following plans to ensure that concerns relating to employee behaviour and community engagement are addressed:

- Interface Management Plan
- Community Liaison Management Plan

A Community and Stakeholder Engagement Manager and Community Relations Field Officers will be the link between the community and the Project Construction workforce.

Commitment 14.5.3 in the Commitments Register states a code of conduct will be developed.

CuString will engage with emergency services to address concerns.

Submission 12

Issue: *(12.03) Road safety*

Date: *11-02-2021*

Submitter: *Planning and Performance Queensland Police Service*

Comment: The Charters Towers Police Division is located in the heart of the Copper String Project which largely encompasses use of the Flinders Highway between Townsville and Mount Isa. The Flinders Highway is the most suitable route from the East Coast of Northern Queensland through to the Northern Territory and beyond. Undoubtedly, the Copper String Project will positively impact the local economy.

The concrete for the foundations would be transported between batching plants and tower locations using concrete agitator trucks, with a capacity of 5.6m3. It is proposed that aggregate required will be sourced within the region/locally, pending further discussions with key stakeholders. However, Hughenden, Richmond and Julia Creek (black soil areas) will likely need to source aggregate from Charters Towers/Pentland or Cloncurry. Type 2 road trains with a capacity of 70 tonnes will be used to haul the reinforcement and cement additives, generating additional movements along the Flinders and Barkly Highways.

Oversized load permits will be required for the transportation of high voltage transformers at each substation, and various plant including large cranes. Oversized vehicle permits are to be obtained by the contractor, via liaison with QPS and DTMR.

Most of the project workforce will be accommodated in purpose-built temporary construction camps near Woodstock, Charters Towers, Pentland, Hughenden, Richmond, Julia Creek, Cloncurry, Mount Isa and Selwyn. The construction workforce will be deployed on a combination of FIFO and bus-in bus-out (BIBO) to construction zones, with Townsville being the FIFO/BIBO hub servicing the camps.

Response:

CuString and the construction Joint Venture will engage with QPS and other agencies to ensure that road risks are managed appropriately. CuString and the construction Joint Venture will continue to work with Department of Traffic and Main Roads (DTMR) to address road and rail network impacts with TMR as further construction planning is completed.

Submission 12

Issue: *(12.04) Impacts to emergency services*

Date: *11-02-2021*

Submitter: *Planning and Performance Queensland Police Service*

Comment: Pentland Police Station is staffed by a single police officer rostered to perform 8-hour shifts and on-call 24/7. The large influx of workers is likely to cause a significant increase in antisocial behaviours, traffic offending and liquor/drug offending which will subsequently increase calls for service in the division. This will impact on fatigue management. 29/08/2022 – 05/06/2023 – peak workforce in October/November 2022.

Hughenden has a population of around 1200 people ranging from young families to an aging community. The addition of an extra 350 people into the population for the period of 20 months will create issues with service delivery. Within the confined accommodation at the workcamp I can see an increase in service calls to disturbances and fights. There will also be a similar increase in calls to licensed premises for disturbances.

Hughenden currently has only 4 police officers and regularly only has 3 available for work due to holidays, training and days off. Due to our rural location we rarely get relievers to relieve officers on leave.

Dajarra is a small town of ERP 311 @ 30/06/2019 in Far NW Queensland. Its largest town is Mount Isa located 156 kms to the North and 181 kms to the North East. It is also 61 kms North West of Phosphate Hill, a local mine in the Dajarra area. Dajarra has two permanent police officers who manage and live in town with a large indigenous population (21.9%). Cloncurry has an additional 14 staff that include 2 from Road Policing. The nearest additional staffing is from Mount Isa.

Mount Isa is predominately a mining town of ERP 18394 @ 30/06/2019 in Far NW Queensland. Its largest neighbour 903 km or 9.5-hour drive is Townsville. Mount Isa comprises of 66 General Duties staff, Road Policing and other specialist staff. Mount Isa Police District comprises about 23% of the State in area and has 15 stations comprising of 12 staff down to 1 & 2 person stations. Generally, relief for these outer stations is obtained from Mount Isa. It depends what else is happening, especially with COVID deployments, as to what assistance can be provided.

McKinlay is a small town of ERP 146 @ 30/06/2019 in Far NW Queensland. Its largest town is Cloncurry (ERP 2733) located 108 kms to the West. It is also 228 kms from Mount Isa and 84 from Carrington Mine which is in the McKinlay area. McKinlay has one permanent police officer who manages and lives in town. Cloncurry has an additional 14 staff that include 2 from Road Policing. The nearest additional staffing is from Mount Isa

Julia Creek is a small town of ERP 566 @ 30/06/2019 in Far NW Queensland. Its largest town is Cloncurry (ERP 2733) located 137 kms to the West. It is also 257 kms from Mount Isa. Julia Creek has two permanent police officers who manage and live in town. Cloncurry has an additional 14 staff that include 2 from Road Policing. The nearest additional staffing is from Mount Isa.

Response:

Noted.

Submission 12

Issue: *(12.05) Road safety*

Date: *11-02-2021*

Submitter: *Planning and Performance Queensland Police Service*

Comment: The large influx of workers is likely to cause a significant increase in traffic flow on the Flinders Highway, which raises the potential for traffic crashes and traffic offences. Estimated vehicle movements:

- Heavy vehicle (includes Type 2 Road train and semi-trailers): 6,350
- Light vehicle movements: 10,380
- Increase in air traffic (helicopters) along the corridor

The increase in traffic due to the movement of steel, transformer, wire and concrete will cause issues for police. Hughenden has an aging population especially during the tourist season which is usually the cooler months. The increase in road trains and trucks will cause issues when grey nomads and families travel on the smaller outback roads because they are not familiar with this type of driving.

The increase in traffic and transport of materials will increase the use of road users, causing road safety concerns along the Landsborough Highway and Flinders Highway. There is no service station in McKinlay with the closest probably Cloncurry.

Because the crew will be mostly FIFO there will be an increase in air traffic.

Response:

Noted.

Submission 12

Issue: *(12.06) Road impacts*

Date: *11-02-2021*

Submitter: *Planning and Performance Queensland Police Service*

Comment: The narrow bridges in the division are a significant hazard which must be addressed: Betts Creek, Granite Creek, Mundic Creek, Campaspe River, Sensible Creek, and Homestead Creek.

There is currently already a significant number of trucks and road trains travelling on the Highway, the narrow bridges are hazardous to inexperienced or inattentive road train operators and there is a significant likelihood that the increase in road train activity will result in traffic crashes.

- Significant increase in traffic
- damage to local roads
- potential to be cut off in wet season
- traffic crashes cause delays to traffic flow

Response:

A Traffic Management Plan (Volume 4 Attachment I Additional Management Plans and Commitments Register) has been developed by the Construction Joint Venture which addresses how traffic will be managed across the Project. The construction Joint Venture will have a nominated Traffic Coordinator which has proven capability in managing complex traffic management schemes. Further to this, CuString are continuing to address road and rail network impacts with TMR as further construction planning is completed. CopperString and the construction Joint Venture will also engage with QPS and other agencies to ensure that road risks are managed.

Submission 12

Issue: *(12.07) Impact to health services*

Date: *11-02-2021*

Submitter: *Planning and Performance Queensland Police Service*

Comment: High demand on local health and emergency services. There is no ambulance or health care provider based at Pentland. The Royal Flying Doctor provides a monthly service to the township, however, all other healthcare/paramedics are based in Charters Towers.

Response:

Noted.

Submission 12

Issue: *(12.08) Cumulative impacts*

Date: *11-02-2021*

Submitter: *Planning and Performance Queensland Police Service*

Comment: If the Kennedy Wind farm starts construction around the same time as Copper String 2 then this would double the issues mentioned here drastically. As the wind farm would be looking at a construction crew of around 500 people with more transport issues.

Response:

Noted.

Submission 12

Issue: *(12.09) Water supply*

Date: *11-02-2021*

Submitter: *Planning and Performance Queensland Police Service*

Comment: Dajarra is presently supplied water from several bores that feeds a reverse osmosis facility. However, the supply of water from these bores via the reverse osmosis treatment does not keep water up to the town. The local town therefore needs to top up the supply with water directly from the bores which make the water non drinkable. No additional strain can be placed on the water supply for Dajarra from construction requirements and should not be relied upon for water supply.

Response:

Noted.

Submission 12

Issue: *(12.10) Heavy vehicle impacts*

Date: *11-02-2021*

Submitter: *Planning and Performance Queensland Police Service*

Comment: There is a single bitumen lane to Dajarra from Mount Isa. Excessive heavy vehicles using this road may jeopardise the safety of other road users.

Response:

A Traffic Management Plan (Volume 4 Attachment I Additional Management Plans and Commitments Register) has been developed which addresses how traffic will be managed across the Project. The construction Joint Venture will have a nominated Traffic Coordinator who has proven capability in managing complex traffic management schemes. Further to this, CuString are continuing to address road and rail network impacts with DTMR as further construction planning is completed.

Submission 12

Issue: *(12.11) Traffic impacts*

Date: *11-02-2021*

Submitter: *Planning and Performance Queensland Police Service*

Comment: Currently limited Level 1 operators available. Only 1 wide load dedicated vehicle.

Response:

Noted.

Submission 12

Issue: *(12.12) Traffic impacts*

Date: *11-02-2021*

Submitter: *Planning and Performance Queensland Police Service*

Comment: It is assumed train will be utilised to transport equipment and parts to Mount Isa and truck to more remote locations. This additional traffic along major and minor roads could cause potential issues and frustration with other motorists.

Response:

The construction Joint Venture have developed a Traffic Management Plan (Volume 4 Attachment I Additional Management Plans and Commitments Register) that commits to employing a suitably qualified person as the Traffic Coordinator/Engineer. This person will be responsible for liaison with QPS.

Submission 12

Issue: *(12.13) workforce management*

Date: *11-02-2021*

Submitter: *Planning and Performance Queensland Police Service*

Comment: It appears the end destination is to Cannington Mine via the Selwyn substation, but it is not known how many staff will be working on site and what accommodation will be required. McKinlay has a small number or rooms available at the local Walkabout Creek Hotel. Aside from this there is very little accommodation. There is, however, accommodation at the mine that might be available.

Response:

Noted.

Submission 12

Issue: *(12.14) Cumulative impacts*

Date: *11-02-2021*

Submitter: *Planning and Performance Queensland Police Service*

Comment: The major site for the Vanadium project is in WA. However, there will be a site at St. Elmo located 25 kms East of Julia Creek. This part of the project has an estimated operational mine life of 30 years. The project is directly employing 250 people during the construction phase and up to 100 people once fully operational. The construction duration is expected to be 12-18 months. If the Vanadium Project at St Elmo is operational at the same time as the CopperString Project, then this would double the above issues.

Response:

Noted.

Submission 12

Issue: *(12.15) Impacts to emergency services*

Date: *11-02-2021*

Submitter: *Planning and Performance Queensland Police Service*

Comment: Cloncurry division will be conjointly involved with neighbouring police divisions in five (5) substations to be built as a part of this project. Due to the expected influx of workers and construction equipment along with road trains and other heavy vehicles to complete the works, Cloncurry division will be a conduit to all works being performed in this area. As such it may be necessary to have police facilitate these works to ensure safe practices in the transportation of equipment and other resources to complete the works.

To facilitate this, it is expected that QPS will be required to provided wide load escorts, manage road diversions and or closures at specified times. There will be an expectation and increased workload on staff in Cloncurry

regarding wide load escort permits, use of police vehicles and personnel to ensure a safe passage for construction vehicles and that of everyday road users. Consideration needs to be given regarding the required resources, and as such the Copper String Project may need to provided vehicles and pay for special duties to comply with permits and movement of heavy and wide loads. All roads around Cloncurry accommodate heavy vehicle haulage and this should not impact on the integrity of roads or bridges, but it may cause slower travel particularly to Mount Isa as the road is primarily a single carriageway.

Cloncurry police have very junior staff and at full capacity will have 12 officers attached to the station. There are about 2 staff trained in wide load escorts (level 2) therefore training and vehicles would be needed to be given to staff to ensure safe compliance.

Due to the increase in workers within the Cloncurry division and the Cloncurry Township, it is envisaged that there will be a significant increase in demand for accommodation. The flow on effect will be the workers social activities during down time and frequenting licensed premises. The result of increase alcohol consumption will lead to increased calls for service and police demand for anti-social behaviour and alcohol fuelled violence. When dealing with these types of offences it increases the workload of police and that will mean the Cloncurry township won't be receiving the policing response as normal. This may require further call outs and overtime penalties putting increase strain on an already stretched budget.

It will be imperative that an open line of communication is needed with the managers of the workers and firm restrictions and consequences be incorporated in their contracts prior to commencing work. Due to the increase in works and expected police involvement in accommodating wide loads and other police enforcement fatigue management needs to be managed. This will put a stain on rostering and therefore police from other areas may be required to assist with policing Cloncurry division.

Response:

Noted.

Submission 12

Issue: *(12.16) Cultural heritage*

Date: *11-02-2021*

Submitter: *Planning and Performance Queensland Police Service*

Comment: The cultural heritage assessment has identified several Indigenous and non-Indigenous cultural heritage sites within proximity of the corridor selection. However, identified non-Indigenous sites are unlikely to be impacted by the Project due to their distance from the corridor selection. Indigenous cultural heritage sites will be managed through avoidance of known sites and development of a Cultural Heritage Management Plan (CHMP) in consultation with relevant Aboriginal parties.

For the management and mitigation of impacts on Indigenous cultural heritage, CopperString will use a range of cultural heritage management processes and proven procedures that have previously been implemented effectively throughout Queensland. The overall strategy for the management of Indigenous cultural heritage will be to avoid harm where reasonably possible. Mitigation measures will be employed where harm cannot be reasonably avoided. If appropriate and with the consent of the relevant Aboriginal parties, previously unrecorded Indigenous cultural heritage may be nominated to appropriate State and Commonwealth cultural heritage registers. Cultural heritage standards in Queensland generally require that cultural heritage items recovered prior to construction and objects identified and salvaged during construction be managed in consultation with the relevant Aboriginal party. This is often achieved through agreement of a safe keeping place between parties.

Police will have to utilise their Police Liaison Officers and senior officers to manage any cultural issues with the works to be conducted. The consultation with elders and indigenous persons is paramount to reduce the possibility of protests and harm to workers and local indigenous persons.

If there were issues with the works to be done there would be a huge demand on police resources. Local security is limited and due to the possibility of volatile behaviour, police would be needed to negotiate peaceful resolutions and enforce against any breaches of the law where needed.

Response:

Noted.

Submission 13 – Email

Issue: *(13.01) Land acquisition and tenure*

Date: *11-02-2021*

Submitter: *Private Submitter*

Comment: Submission made on behalf of owners of Lot 2, CP EN13, Title Reference 17650161 and Lot 2 on CP EN 25, Title Reference 17653222.

The proponent is not acting fairly in determining the valuations and easement price calculations. The methodology in clause 4.6 of the Land Access Protocol fails to take into account other heads of compensation that would be usually payable and considered in determining compensation including disturbance, severance, inconvenience, legal costs, valuation costs and the like. The valuation mechanism refers to a desk top assessment which will not give landholders a fair or accurate compensation payment. There is no mechanism for taking into account the blot on title and the future impact on the value of the property. The powers given to the proponent under its proposed easement terms (e.g. the power to fence the area etc) and the foreseeable restrictions arising on the use of the balance of the land, should also be considered as part of determining the compensation that is paid to the landholder.

There is no mechanism for determining the disturbance costs during construction. For example, although the index refers to "4.8 Consequential loss during construction" the clause 4.8 itself heading has been changed and the paragraph does not in any way deal with consequential loss. The protocol fails to provide a fair and reasonable basis for landholders to negotiate the easement terms and compensation. Rather, it appears that the proponent has prepared these documents on a take it or leave it basis. There is no genuine mechanism in the protocol for consultation, independent legal advice and negotiation of compensation. Our client is concerned with the landholder documentation and its terms to date and the failure to ensure that compensation is being determined by reference to usual methods taking into account all disturbance and foreseeable impacts arising. There has been no genuine attempt by the proponent to encourage landholders to engage independent solicitors, valuers and agronomists at the cost of the proponent to assist in such calculations. The Land Access Protocol should clearly confirm that the proponent will pay all legal fees, accounting, valuation and agronomist fees incurred by landholders in negotiating compensation.

Response:

Volume 3 Attachment E Land Acquisition Protocol provided a detailed step by step engagement and negotiation process with landholders. This process is ongoing and continuing. Each individual land holder has a dedicated land agent. No further information is required.

Submission 13

Issue: *(13.03) Potential Impacts*

Date: *11-02-2021*

Submitter: *Private Submitter*

Comment: The health impacts on humans and the possible impacts on animals particularly livestock do not appear to have been adequately canvased or researched in the material. The environmental management plan should require the proponent to adopt best practice at all times during the life of the project to ensure that there is no environmental harm caused to the environment or any adjoining land.

Response:

Volume 3 Appendix AC Electro-magnetic-field specialist study was prepared as part of the CopperString 1.0 Project. This report was reviewed recently and deemed acceptable for the CopperString 2.0 project.

Submission 13

Issue: *(13.04) Landholder impacts*

Date: *11-02-2021*

Submitter: *Private Submitter*

Comment: Concerns regarding future impacts and the easement terms, with requested changes to the easement terms.

Response:

The terms of the easement are negotiated between CuString and the individual property owner. Amendments to easement terms as a result of future impacts have been considered during current easement negotiations.

Submission 14 – Email

Issue: *(14.01) corridor selection*

Date: *11-02-2021*

Submitter: *Department of Environment and Science*

Comment: Due to the impacts the project would have on the Ballara Nature Refuge, and the inconsistency of those impacts with the Management Principles of a nature refuge, the proposed southern spur section of the project should not traverse the nature refuge.

Current conservation legislation (Nature Conservation Act 1992) does not facilitate the approval or removal of impediments to locating the proposed southern spur in the nature refuge. For this to occur, the Minister must be satisfied that the land is no longer needed for, or capable of being used to achieve, the declared management intent for the nature refuge. The conservation agreement for the Ballara Nature Refuge does not identify power infrastructure in the management intent of the nature refuge.

Response:

The corridor selection through the Ballara Nature Refuge has been developed in close consultation with the landholder who has signed an options agreement for the Grant of Easement with CuString Pty Ltd regarding CopperString 2.0. An assessment of alternative southern connections from Cloncurry, through the eastern portion of the Ballara Nature Reserve and onto Selwyn was included as part of the Draft EIS Volume 3 Appendix D Project Corridor Selection Report. The alignment has been flown by the landowners and in their view the proposed alignment is in the best location possible to avoid impacts to their land, the environmental values recognised within the Conservation Agreement to Establish Ballara Nature Refuge and its existing grazing use. We understand that the landholder has reached an agreement with DES to amend the Conservation Agreement to allow the project to be constructed and operated on their land. We understand that any amendments to the Conservation Agreement to Establish Ballara Nature Refuge must be agreed by both parties and consented to by the Minister. We await the outcomes of this process.

Submission 14

Issue: *(14.02) General comment*

Date: *11-02-2021*

Submitter: *Department of Environment and Science*

Comment: DES appreciates the complexity of the draft EIS and the effectiveness of cross-referencing between the chapters and appendices, however, it would be useful identifying the specific sections when referring to other parts of the draft EIS.

Response:

Noted.

Submission 14

Issue: *(14.03) Maintenance*

Date: *11-02-2021*

Submitter: *Department of Environment and Science*

Comment: (Chap 6, section 6.4; Chap 7; and Appendix P, section 6.3)
The draft EIS acknowledges that periodical maintenance is required for the transmission line, however, lacks in information on how it will be maintained and repaired.

Response:

The proponent will develop an Operational Environment Management Plan which will manage environmental risks relevant to maintenance and operation. This document is yet to be developed, however, risks to soils associated with activities to maintain and repair the transmission line will be managed using similar mitigation measure that are required during construction.

Submission 14

Issue: *(14.04) Access tracks*

Date: *11-02-2021*

Submitter: *Department of Environment and Science*

Comment: (Chap 6, section 6.4; Appendix P, section 5.2.1)
The draft EIS implies that most access tracks will be limited to already existing road network and private access tracks, with some new tracks. Although the previously cleared areas and streets have been mapped, it is not clear how much vegetation will be cleared, and where the new tracks will be located for the maintenance of the transmission line.

Response:

Noted. Clearance and disturbance footprints have been developed and are included in the following chapters:

- Volume 4 EIS Supplement Section 4.5 Additional Information MSES
- Volume 4 Attachment B Revised Project Description, Table 2-12
- Volume 4 EIS Supplement Section 4.4 Additional Information MNES

Maps for proposed and new access tracks are included in Volume 4 EIS Supplement Section 5.1.3 Corridor Access

Submission 14

Issue: *(14.05) access tracks*

Date: *11-02-2021*

Submitter: *Department of Environment and Science*

Comment: (Chap 6, section 6.4; chap 7, section 7.4.2; Appendix T)
It is not clear how much of the access tracks are permanent and how much will be temporary. In Volume Appendix T, the draft EIS states that the access tracks will not require rehabilitation as they are permanent infrastructure, but in the significant impact criteria assessment (Volume 2 Chapter 7 section 7.6) the draft EIS states that the project does not require permanent access tracks.

Response:

The disturbance for access tracks established during construction will remain as permanent disturbance. It is expected the width of permanent disturbance will be 3m as they will be 4WD only access tracks.

Submission 14

Issue: *(14.06) water quality impacts*

Date: *11-02-2021*

Submitter: *Department of Environment and Science*

Comment: (Chap 9, sections 9.3.2 and 9.4.4)
No surface water or groundwater quality data was presented describing background conditions. The EIS is required to describe how this data was obtained and should summarise available data sources describing surface and groundwater quality and to compare background data with the scheduled water quality objectives (WQOs).

The environmental values (EVs) as described in the Environmental Protection Policy (Water) and Wetland Biodiversity 2019, relevant to each of the waterways that the proposed project traverses, have not been described. Where a catchment has not been scheduled, the EVs of the streams need to be determined, as this is used to assess the impact of the project. The EVs identified can also affect the WQOs. Until such time that the baseline water quality is known and the local WQOs are determined, the project will need to meet the most stringent WQOs of the EVs listed. Normally this will be aquatic ecosystems WQOs.

The draft EVs and WQOs for Burdekin area have been released (https://environment.des.qld.gov.au/management/water/policy/consultations#burd-haught-don). These will cover part of the corridor. Furthermore, the proponent states that the Queensland Water Quality Guideline is not available, however, it is available from the Queensland Government library catalogue https://www.qld.gov.au/environment/library.

Response:

The project terms of reference (section 12.37) requested the proponent to provide an overview of water-related environmental values, including existing surface water and groundwater that may be impacted. This overview was provided within Volume 2 Chapter 9, Section 9.3.2.
Earthworks required for the project construction are shallow and are not expected to encounter or interfere with existing groundwater resources or groundwater quality. Further information describing surface water environmental values was also recorded from ecological field surveys provided in Volume 3 Appendix P Ecological assessment. These observations confirm that, the majority of sites visited near the corridor selection within the Burdekin, Flinders, Leichhardt and Georgina catchments displayed evidence of disturbances and degradation by cattle (e.g. weeds, erosion, and reduced water quality). The exceptions were sites 1A-A (Haughton River catchment) and 1A_I-K (Coopers Creek catchment), which both showed little sign of disturbance. At the time of the aquatic surveys, the majority of sites were ephemeral and contained isolated pools or were dry. It is expected that these sites have run and pool habitat in the wet season, however these were not evident at the time of survey. Channel characteristics at the proposed crossing locations were observed to be consistent across the study area. Larger high-order creeks and rivers were characterised by wide, sandy channels with moderately high banks and occasional braided channels and wetlands associated with the main watercourse. Smaller, low-order creeks were typically characterised by a series of braided channels and relatively low banks. Watercourse environmental values \ characteristics were summarised for each catchment in Volume 3 Appendix P Ecological assessment table 3-10.
Ground surface disturbance within each catchment is predominantly 6.0m wider (vehicle access) and to establish tower pads (within tower assembly areas spaced approximately at 600m intervals). A breakdown of total area intersected by the project (includes total easement area) and the expected disturbance within the six catchments is provided as follows:

Catchment	Area intersected (ha)	Disturbance area intersected (ha)	Percentage of Total Footprint (%)
Burdekin	1303.73	103.56	7.94
Cooper Creek	496.56	49.09	9.89
Flinders	3470.83	337.09	9.71
Georgina	403.93	40.91	10.13
Haughton	103.59	47.37	45.73
Leichhardt	291.29	27.28	9.36
Total mapped	**6069.92**	**605.30**	**9.97**

Construction activities have the potential to generate localised dust, erosion, run-off and sedimentation through increased vehicle movements, clearance of vegetation and earthworks. These impacts will be over a short duration and contained within the linear footprint of the project and mitigated through the implementation a range of controls including:

- buffer distances (15m from the top of bank) between tower assembly areas and waterways \ watercourses
- implementing erosion and sediment controls
- Limiting ground disturbance within bed and banks of watercourses to be only for vehicle access (6.0m wide bed level crossing)
- where vegetation requires removal it is required it is done by hand above ground level.
- water trucks will be utilized as a dust control at work sites and along the access track to contain particle movement.

Volume 3 Appendix Q, Section 4.5.3 confirms that water quality management measures will be developed pre-construction within the CEMP, consistent with the measures outlined in the Concept ESCP provided in Volume 3 Appendix S. The Concept ESCP confirms that site inspections and water quality monitoring may include specific water quality sampling and detailed logbook entries of the site's monitoring and maintenance activities. Given that the Project traverses nearly 82 watercourses, which are mostly ephemeral, water quality sampling is not feasible at all locations.

At this stage in the project the Construction JV has made provision to undertake water quality monitoring using portable water quality data loggers. It is expected that observations upstream and downstream of where the corridor selection intersects watercourses will be monitored and results compared and reported to determine compliance with the environmental objectives for surface water from the construction environmental management plan.

Submission 14

Issue: *(14.07) sewage treatment*

Date: *11-02-2021*

Submitter: *Department of Environment and Science*

Comment: (Chap 9, sections 9.3.5 and 9.4.1)
The draft EIS states that where utilization of an existing Council operated sewage treatment plants (STPs) is not available, the disposal of treated sewage would be via an irrigation scheme. If STP is for 21 equivalent persons or more, the proponent will require an ERA 63. It is not clear whether the proposed project will require an ERA 63 approval or not.

Response:

CopperString is not seeking approval for ERA 63 associated with construction camps as part of the EIS process. No further information will be provided as part of the final EIS. Approval will be obtained as part of the MID process.

Submission 14

Issue: *(14.08) Flooding*

Date: *11-02-2021*

Submitter: *Department of Environment and Science*

Comment: (Chap 9, sections 9.3.4, 9.3.6 and 9.4.1)
The statement in the conclusion of Chapter 9 (Section 9.5) of the draft EIS on flood modelling needs to be expanded. TOR section 12.34 requires for hydraulic flood modelling, however, in the draft EIS, there was no hydraulic flood modelling undertaken to determine flood levels in the vicinity of the transmission lines and substations. While existing information from the Qspatial catalogue was presented and provides a basis to identify key areas for flood risk, it does not provide adequate assessment of flood risk for the purposes of assessing potential impact from the proposed project.

Response:

Noted. The project infrastructure is not expected to result in changes to existing flood levels. Only tower infrastructure will be placed within or near existing flood plains or waterways subject to flooding. Tower footings and tower pads in these areas will be designed to withstand expected flooding patterns and not result in scouring effects that will contribute to long term erosion. A further desktop flood risk study is being undertaken as part of the detailed design process. This will not be available for the EIS Supplement and further hydraulic modelling will occur during the detailed design process.

Submission 14

Issue: *(14.09) Waste management*

Date: *11-02-2021*

Submitter: *Department of Environment and Science*

Comment: (Chap 12, sections 12.57, 12.58 and 12.59)
The draft EIS does not adequately describe how the project would achieve minimum generation of waste.

Response:

The Construction JV has developed a Waste and Refuse Management Plan (refer Volume 4 Attachment I Additional Management Plans and Commitments Register). This plan provides information on the waste management hierarchy including avoidance of waste, minimisation of waste and recycling of waste.

Submission 14

Issue: *(14.10) soil and erosion*

Date: *11-02-2021*

Submitter: *Department of Environment and Science*

Comment: (Appendix S, section 1.4.4)

It is not clear whether the estimated soil loss calculated using the universal soil loss equation (RUSLE) provides accurate soil loss rates to inform the prediction of soil loss due to construction of the proposed project. The draft EIS states that RUSLE is used as an indicator of potential soil loss and only assists in identifying relevant sediment control measures and does not provide an accurate assessment of annual soil loss rates.

Response:

While the RUSLE soil loss equation is primarily used as an indicator of potential soil loss, it does provide sufficient information and detail for the purpose of setting sediment control standards for the project and this EIS. The use of the RUSLE equation is consistent with the 'Best Practice Erosion and Sediment Control' Guidelines, International Erosion Control Association, (IECA) 2008. These guidelines have been developed and are frequently used to provide assistance in the development of erosion and sediment control during planning, design, installation and maintenance for a construction site and will also form the basis of this project. The utilisation of

this approach will also facilitate the minimisation of environmental harm through identification of best practice erosion and sediment control on site which also meets in the intent of this EIS.

Submission 14

Issue: *(14.11) Cultural heritage*

Date: *11-02-2021*

Submitter: *Department of Environment and Science*

Comment: The draft EIS does not adequately describe the legislative framework for the reporting and management of nonindigenous archaeological discoveries.

Response:

Noted. Volume 3 Appendix AA non-indigenous cultural heritage outlines the process of non-indigenous artefact discovery which aligns with the Cultural Heritage Act 1992 and describes the subsequent AMP's which are necessary. Volume 2 Chapter 15 Cultural heritage also outlines there were no sites of heritage value within the study area according to LGA heritage registers and Australian Heritage Database.

Volume 4 EIS Supplement Section 4.2 Additional Information Legislation and Approvals provides reference to the legislative framework for reporting on non-indigenous artefacts.

Submission 15 – Email

Issue: *(15.01) Waterway Crossings*

Date: *12-04-2021*

Submitter: *Department of Regional Development, Manufacturing and Water*

Comment: (Chap 2, pg 67, section 2.5.3)

Works to establish a bed level crossing within a watercourse managed under the Water Act 2000 may involve the excavation or placement of fill, or the destruction of vegetation within a watercourse. A riverine protection permit is required if the works cannot comply with the "Riverine Protection Permit Exemptions Requirements" document.

The draft EIS states "Vehicle access across waterways is likely be in the form of bed level crossings which can be established in accordance with the Department of Agriculture and Fisheries' Accepted development requirements for operational work that is constructing or raising waterway barrier works."

Response:

Noted. A provision for riverine protection permits has been included in the Volume 2, Chapter 4 Legislation and Approvals, Section 4.5.12. A diagram of the likely bed level crossings can be found in Volume 4 EIS Supplement Section 4.6 Additional Information Water Resources and Water Quality.

Submission 15

Issue: *(15.02) Groundwater Bores*

Date: *12-02-2021*

Submitter: *Department of Regional Development, Manufacturing and Water*

Comment: (Chap 2, pg 115, section 2.22.1)

While an existing water bore may be approved and authorise the take of water under a water licence, water licences have terms and conditions which specify what purpose water can be taken for, the maximum volume that may be taken, and where the water can be used (if the licence is held by a non-entity). Using water under a

water licence in contravention of its terms and conditions would be an offence under the Water Act 2000. The water licence holder supplying water to a location not authorised on the water licence would be an offence under the Water Act 2000.

The draft EIS states "Use of groundwater through existing licensed bores if required"; and, "No new groundwater bores are proposed as part of the Project."

Response:

Noted. Volume 4 Attachment B Revised Project Description has been updated.

Submission 15

Issue: *(15.03) Water Resource Impacts*

Date: *12-02-2021*

Submitter: *Department of Regional Development, Manufacturing and Water*

Comment: (Chap 2, pg 116, section 2.22.1)

If the proponent reaches an agreement with Council to access town water supply there are no further requirements under the Water Act 2000 for the batching plant's water demand.

The proponent indicated no new groundwater bores are proposed as part of the Project. Where use of an existing groundwater bore/s is proposed, appropriate authority will be required to take water for this purpose under the Water Act 2000.

The draft EIS states "Where new or temporary mobile batching plants are proposed, the water source will be determined in consultation with local councils and the Department of Natural Resources, Mines and Energy (DNRME)."

Response:

Noted. Volume 4 Attachment B Revised Project Description has been updated.

Submission 15

Issue: *(15.04) Approvals*

Date: *12-02-2021*

Submitter: *Department of Regional Development, Manufacturing and Water*

Comment: (Chap 2, pg 118, section 2.22.3)

If the project requires authority to take water under the Water Act 2000 or for carrying out water related development under the Planning Regulation 2016, the approvals will be conditioned as required to limit the impact on existing users and the environment.

The draft EIS states "Where new or existing bores are proposed to access water, the following management measures will be undertaken to ensure impacts of use are minimised:

- A pump test and drawdown investigation will be undertaken to ensure adequate yields will be available for camp use and that adequate yields will be maintained for surrounding users
- Ongoing monitoring of surrounding bore levels will be undertaken to ensure yields are maintained and an appropriate management plan should yields decrease to ensure compensation is provided
- Water quality testing will be undertaken to determine the treatment requirements to comply with the Australian Drinking Water Guidelines (2011), version 3.5."

Response:

Noted. These will be considered should the extraction of groundwater be required as part of the project.

Submission 15

Issue: *(15.05) Approvals*

Date: *12-02-2021*

Submitter: *Department of Regional Development, Manufacturing and Water*

Comment: (Chap 4, pg, 14, section 4.5.1)

The draft EIS states "General Recommendations relating to approvals under other legislation to be obtained post the EIS process including:

• Water Act 2000 (Water Act) – riverine protection permit"

Where existing town water supplies are unavailable to meet project demand, the Project may require a seasonal water assignment notice or water permit under the Water Act 2000 to authorise the take of underground water or surface water (e.g., for dust suppression, temporary camps outside of local council areas, etc.). Refer to comments for issue 15.03.

Volume 2, Chapter 4, Page 27, 4.5.12 also mentions the potential for a quarry material allocation notice to be required, which should reflected where possible approvals are detailed in the EIS.

Response:

Amend wording as follows (**bold added**):

• Water Act 2000 (Water Act) – Riverine protection permit, **quarry material allocation notice, water permit and/or seasonal water assignment notice"**

Refer to Volume 4 EIS Supplement, Section 5.0 Editorial Corrections.

Submission 15

Issue: *(15.06) Approvals*

Date: *12-02-2021*

Submitter: *Department of Regional Development, Manufacturing and Water*

Comment: (Chap 4, pg 14, section 4.5.1)

The draft EIS discusses the potential for assessable development under heading Relevance to project – Planning Act. The project may require development approval for assessable water related operational works.

Response:

Noted. Approvals will be obtained as necessary outside of the EIS process.

Submission 15

Issue: *(15.07) Groundwater Bores*

Date: *12-02-2021*

Submitter: *Department of Regional Development, Manufacturing and Water*

Comment: (Chap 4, pg 28-29, section 4.5.12)

The draft EIS states "No new groundwater bores are proposed under this Project description." and "If access to existing groundwater bores are required to source groundwater, agreements with licence holders will be made. No additional groundwater bores are proposed to be developed as part of the Project."

This wording is potentially inconsistent with information provided in Volume 2, Chapter 2. New water sources may be required for the project where existing town water supplies are unavailable to meet project demand.

Existing water bores and licences may not be able to legally be used to supply water to the project without an appropriate authority in place for this purpose.

Response:

Noted. Wording amended to reflect updated wording in Volume 4 Attachment B Revised Project Description.

No new groundwater bores are proposed as part of the Project. **Where existing licenced bores are proposed for use, consultation will be undertaken with the Department of Regional Development, Manufacturing and Water to determine whether the purpose and conditions of the water licence allow the taking of water for the proposed purpose.**

Submission 15

Issue: *(15.08) Water Resource Impacts*

Date: *12-02-2021*

Submitter: *Department of Regional Development, Manufacturing and Water*

Comment: (Chap 9, pg 13-14, Table 9-4)

The draft EIS details surface water entitlements by basin. The data provided is Table 9-4 is not correct. Based on the Department of Regional Development, Manufacturing and Water's water management system data (accessed 5/02/2021), the correct entitlements are shown in bold below:

Basin	Supplemented surface water (ML)	Unsupplemented Surface Water (ML)
Burdekin WP – Burdekin Basin (120) & Haughton Basin (119)	**1,104,829**	**216,757.8**
Cooper Creek Basin (003)	**0**	**18,033.9**
Gulf WP – Staaten Basin (918), Gilbert (917), Norman (916), Flinders (915), Leichhardt (913), Morning (914), Nicholson (912), Settlement (910)	**75,150**	**281,177.4**
Georgina & Diamantina WP – Georgina (001), Diamantina (002), Hay (007),	**0**	**6,108**

Unallocated water in the Gulf Water plan could be released for either surface water or groundwater.

Response:

Noted. Table amended as above.

Refer to Volume 4 EIS Supplement, Section 5.0 Editorial Corrections.

Submission 15

Issue: *(15.09) Terminology/typographic error*

Date: *12-02-2021*

Submitter: *Department of Regional Development, Manufacturing and Water*

Comment:(Chap 9, pg 54, section 9.4.1)

Under the heading Riverine materials, the draft EIS states that aggregate riverine materials is not considered under the Project. This wording is potentially inconsistent with information provided in Volume 2, Chapter 4, 4.5.12 where the potential for a quarry material allocation notice is discussed. Wording should be updated to be consistent with that described in Volume 2, Chapter 4, 4.5.12

Response:

Text amended to become consistent with Volume 2 Chapter 4, Section 4.5.12 (strike through deleted, **bold added**):

Aggregate required for the concrete batching process and other general construction activities would be supplied from the local regions from existing authorised suppliers. The final source of these materials will be subject to further discussions with key stakeholders, including Councils and quarry operators. Sand and aggregate for the Hughenden, Richmond and Julia Creek area (black soil areas) may need to be drawn from the Charters Towers/Pentland or Cloncurry areas. ~~New sources of aggregate from water features (i.e. riverine material) is not considered under the Project.~~ No material is proposed to be removed from a watercourse for construction of the Project. If material is sourced from a watercourse for construction, in addition to requiring approval under the Planning Act, a quarry material allocation notice under the Water Act will need to be applied for and granted prior to the material being sourced. If required, an application to DNRME and/or DAF outlining the type and quantity of material to be extracted, the intended purpose, length of time required, and a report will be required.

Refer to Volume 4 EIS Supplement, Section 5.0 Editorial Corrections.

Submission 15

Issue: *(15.10) Approvals*

Date: *12-02-2021*

Submitter: *Department of Regional Development, Manufacturing and Water*

Comment: (Chap 9, pg 57, section 9.4.1)

The draft EIS states "Where access to Council supply is not possible or feasible due to remote locations of camps or construction activities, existing licenced and authorised groundwater reserves will be used in consultation with DNRME and landholders. This would ensure that volumes and quality of groundwater are maintained and current lawful users of water (such as entitlement holders and stock and domestic users) and other beneficial uses of water (such as spring flows and groundwater dependent ecosystems) are not adversely impacted by the project."

While an existing water bore may be approved and authorise the take of water under a water licence, water licences have terms and conditions which specify what purpose water can be taken for, the maximum volume that may be taken, and where the water can be used (if the licence is held by a non-entity). The Project using water under a water licence in contravention of its terms and conditions would be an offence under the Water Act 2000. The water licence holder supplying water to a location not authorised on the water licence would be an offence under the Water Act 2000.

Response:

Amend existing text (**bold added**):
Where access to Council supply is not possible or feasible due to remote locations of camps or construction activities, **consultation with landholders and the Department of Regional Development, Manufacturing and Water will be undertaken and, where required, additional approval under the Water Act 2000 obtained in**

order to utilise existing bores. This would ensure that volumes and quality of groundwater are maintained and current lawful users of water (such as entitlement holders and stock and domestic users) and other beneficial uses of water (such as spring flows and groundwater-dependent ecosystems) are not adversely impacted by the project."

Refer to Volume 4 EIS Supplement, Section 5.0 Editorial Corrections.

Submission 15

Issue: *(15.11) Terminology/typographic error*

Date: *12-02-2021*

Submitter: *Department of Regional Development, Manufacturing and Water*

Comment: (Appendix L, pg 13, Table 1-2)

The draft EIS contains an approvals register that has table entries for: "Permit to take quarry material from a watercourse"; and "Water licence allocation"

The wording "water authorisation" covers both statutory authorisations under the legislation and authorisations issued under the Water Act 2000 (including a water permit or seasonal water assignment notice) – refer to section 27 of the Water Act 2000.

Response:

Noted, Wording amended from 'water licence allocation' to water authorisation.

Refer to Volume 4 EIS Supplement, Section 5.0 Editorial Corrections.

Submission 15

Issue: *(15.12) Terminology/typographic error*

Date: *12-02-2021*

Submitter: *Department of Regional Development, Manufacturing and Water*

Comment: The Water Act 2000 was previously regulated by the former Department of Natural Resources, Mines and Energy. As a result of recent machinery of government restructure, the Water Act 2000 is now regulated by the Department of Regional Development, Manufacturing and Water.

Response:

Any references to The Water Act 2000 are now updated to acknowledge that it is regulated and administered by the Department of Regional Development, Manufacturing and Water.

Refer to Volume 4 EIS Supplement, Section 5.0 Editorial Corrections.

Submission 16 – Email
Issue: *(16.01) Impacts to Emergency Services*
Date: *12-02-2021*
Submitter: *Queensland Ambulance Service*
Comment: QAS and QLD Health are to be informed of the proposed works commencement and occupational commencement dates once the approval is provided. This will assist the QAS and Qld Health in proactive planning for service delivery to the workplace
Response: Noted.
Issue: *(16.02) Traffic Impacts*
Date: *12-02-2021*
Submitter: *Queensland Ambulance Service*
Comment: DTMR and the local Council to advise QAS and QLD Health of any diversions, restrictions or limitation on road infrastructure that may impact on the delivery of an emergency medical response through the road network within the project area. This should outline alternatives to road transport for the delivery of equipment.
Response: Noted.
Issue: *(16.03) Impacts to Emergency Services*
Date: *12-02-2021*
Submitter: *Queensland Ambulance Service*
Comment: QAS may require support to piggyback and expand radio networks. To ensure appropriate coverage, a repeater may need to be set up on existing towers should there be poor coverage in the immediate area.
Response: Noted.
Issue: *(16.04) Hazards and Community Safety*
Date: *12-02-2021*
Submitter: *Queensland Ambulance Service*
Comment: Provide the QAS and QLD Health with access and evacuation maps for accommodation camps or villages if applicable, including the accommodation within Townsville for the operational purpose.
Response: Noted. Once camps locations and layouts are finalised access and evacuation maps will be provided to QAS and QLD health. Refer to Volume 4, Attachment I Additional Management Plans and Commitments register for the Accommodation Management Plan.

Submission 17 – Email

Issue: *(17.01) Terminology/typographic error*

Date: *11-02-2021*

Submitter: *Department of Agriculture and Fisheries*

Comment: (S4.5.7, pg20) The paragraph incorrectly references the Fisheries Regulation 1995– should be Fisheries (General) Regulation 2019

Response:

Reference updated:

Replace reference to Fisheries Regulation 1995 replaced with Fisheries (General) Regulation 2019.
Refer to Volume 4 EIS Supplement, Section 5.0 Editorial Corrections.

Submission 17

Issue: *(17.02) Terminology/typographic error*

Date: *11-02-2021*

Submitter: *Department of Agriculture and Fisheries*

Comment: (S4.5.7, pg20) The statement that reads:

"The Planning Regulation assigns the Chief Executive administering the Fisheries Act as the assessment manager for fisheries development in certain situations" is incorrect. Fisheries Queensland have delegations under the Planning Act and are an enforcement agency for Fisheries related development once a development approval is in effect, but don't act as an assessment manager for fisheries related development. This is detailed in Schedule 8, table 4 of the Planning Regulation 2016.

Response:

Wording amended (strikethrough deleted, **bold added**)

~~The Planning Regulation assigns the Chief Executive administering the Fisheries Act as the assessment manager for fisheries development in certain situations~~ **The Planning Regulation assigns the Chief Executive (administering the Planning Regulation) as the assessment manager for fisheries development.**

Refer to Volume 4 EIS Supplement, Section 5.0 Editorial Corrections.

Submission 17

Issue: *(17.03) Potential impacts*

Date: *11-02-2021*

Submitter: *Department of Agriculture and Fisheries*

Comment: (S4.5.7, pg20) Relevance to project – Fisheries Act. This section details how the project will impact on waterways. Further clarification and/or amendments to these paragraphs are required to accurately reflect the proposal's impacts.

Response:

Amend wording.

The corridor selection traverses a number of waterways (94 Major or High Risk waterways and **multiple moderate and low risk waterways**) that are mapped on the Queensland Waterways for Waterway Barrier Works spatial layer, as waterways where fish habitats are at risk of impact from waterway barrier works. During

the construction phase of the Project, existing waterway crossings will be utilised where practicable.
Where temporary crossings are required, the Project will be required to meet the Accepted development requirements for operational work that is constructing or raising waterway barrier works 2018. Where the works are undertaken in accordance with the Accepted development requirements for operational work that is constructing or raising waterway barrier works 2018, then an operational works development permit for constructing or raising waterway barrier works is not required (refer to Volume 2 Chapter 9 Water resources and water quality).
Other than access tracks and temporary crossings, there are no components of the Project that are defined as waterway barrier works.~~, as~~ Towers, C**EV huts, substations, laydown areas, stockpile and storage areas, temporary camps, accommodation, fly yards and any other ancillary infrastructure that does not have functional requirement to be within a waterway** will not be constructed within any waterways. In addition, conductors and earth wire pull cables will be strung over the waterways using helicopters to avoid riparian impacts. Vehicle access across waterways is likely be in the form of a bed level crossings which can be established in accordance with the accepted development requirements. New bed level waterway crossings will be constructed within timeframes **and all other design requirements, general standards and notification** as specified by the Accepted development requirements for operation work that is constructing or raising waterway barrier works (DAF, 2018) (i.e. within 180 days for major impact (purple) or high impact (red) waterways, or 360 days on moderate impact (amber) or low impact (green) waterways). As such, assessable waterway barrier works **are not likely to** apply to this project. **Any waterway crossings that cannot comply with the Accepted Development requirements will be assessable development and pre-lodgement advice and a development application is to be sought through the State Assessment and Referral Agency (SARA) before works at that location begins.**
The DAF will be consulted should quarry material extraction be required that has the potential to impact on fish movement.
The Project will not require the removal of marine plants during the construction of waterway crossings as it is not located within a coastal area.

Submission 17

Issue: *(17.04) Resources*

Date: *11-02-2021*

Submitter: *Department of Agriculture and Fisheries*

Comment: (S4.6.5, pg32) The draft EIS states:
The Project area intersects a number of parcels including state land and spoil material will be excavated during the establishment of the tower foundations, and the establishment of access tracks and other ancillary activities. However, the excavated material will remain in the Project area and will not be used for commercial purposes. It is yet to be determined if the project will disturb harvestable timber, therefore, a sales permit may be required for the Project.

The issue is an authority may also be required under the Forestry Act where the project alienates or disturbs state-owned quarry material (and or forest products). There is also an issue because of a possibility of a delayed response from the Project in relation to allowing for the extraction of state-owned forest products and/or quarry material. Note quarry material and forest products can be reserved to the state under the Forestry Act across a range of tenures, not just state lands.

Response:

Wording amended (strike through deleted, **bold added**):
~~The Project area intersects a number of parcels including state land and spoil material will be excavated during the establishment of the tower foundations, and the establishment of access tracks and other ancillary activities. However, the excavated material will remain in the Project area and will not be used for commercial purposes. It is yet to be determined if the project will disturb harvestable timber, therefore, a sales permit may be required for the Project~~. **The Project may impact on state-owned forest products and quarry material under the Forestry Act. In addition to the requirement for an authority for using state-owned quarry material or forest products, an authority may be needed to alienate or disturb the same. The Proponent will contact**

DAF Forestry to finalise any required approvals or compensation upfront and to provide adequate time for the extraction of state-owned quarry material and/or forest products where required.

Submission 17

Issue: *(17.05) Waterway barrier works*

Date: *11-02-2021*

Submitter: *Department of Agriculture and Fisheries*

Comment: (S4.9.9, Table 4-7, pg75) Operational works for constructing waterway barrier works OR Compliance with Accepted development requirements for operational work that is constructing or raising waterway barrier works

- *Planning Act 2016*
- *Fisheries Act 1994*

This row incorrectly states under column "Approval Requirements" that approvals are not required. The proponent has identified that approval requirements are not required. Crossings will be required that constitute waterway barrier works, however, they are likely to comply with ADR. Where they cannot meet specifications within ADR they will be assessable development. Column "Trigger" should state the correct legislative trigger operational works that is constructing or raising waterway barrier works. Column "Approval timeframe" should clarify the difference between Development approval timeframe and Accepted Development timeframe.

Response:

Wording amended as follows:
Amend each relevant column in line with row for operational works that is constructing or raising waterway barrier works as follows **(in bold)**:
"Approval Requirements"
Required. Where possible crossings of waterways will utilise existing crossings. Any works within the bed and banks of a waterway constitutes waterway barrier works and requires authority either under the Accepted development requirements or through a development approval. Vehicle crossing for the project will aim to meet the requirements for bed level crossings within the Accepted development requirements for operational work that is constructing or raising waterway barrier works.
Any waterway crossings that cannot meet the specifications within the ADR will require a development approval.
"Trigger"
Operational works that is constructing or raising waterway barrier works, will apply to specific locations during the construction phase where crossing waterways has the potential to create a barrier to fish passage.
"Approving Authority"
Department of Agriculture and Fisheries (DAF)
State Assessment and Referral Agency (SARA)
"Approval Timeframe"
4 months for a DA.
For Accepted Development: Notification must be made prior to but no more than 20 business days before work commences and within 15 business days post-works.

Submission 17

Issue: *(17.06) Terminology/typographic error*

Date: *11-02-2021*

Submitter: *Department of Agriculture and Fisheries*

Comment: (S4.9.9, Table 4-7, pg80) Quarry Permit Forestry Act 1959 - The same issues described above apply to this row of this table.

Response:

Wording amended as follows in the rows of the table (deleted struck through, **inserted bold**):
Column 1 Approval / Relevant legislation
Quarry material / **Forest product** Permit
Forestry Act 1959
Column 3 Relevant Project Activities
~~Removing material from State Land for use in construction or other commercial purpose~~ **Removing, alienating or disturbing state-owned quarry material or forest product**s
Column 4 Trigger
~~Where material is proposed to be extracted from the ground on State Land for use in the construction of access tracks or other activities~~. **Removing, alienating or disturbing state-owned quarry material or forest products.**
The requirement for material is to be determined.
Column 7 Approval Requirements
~~Not Required Spoil material excavated during establishment of tower foundations will not be used for commercial purposes, but may be used to assist in directing stormwater flows around the infrastructure. Material will not leave site and Permit.~~ **Authorities under the Forestry Act may be required. The Proponent will contact DAF Forestry to finalise any required approvals or compensation upfront and to provide adequate time for the extraction of state-owned quarry material and/or forest products where required.**

Submission 17

Issue: *(17.07) Terminology/typographic error*

Date: *11-02-2021*

Submitter: *Department of Agriculture and Fisheries*

Comment: (S4.9.9, Table 4-7, pg80) Permit to take quarry material from a watercourse Forestry Act 1959 Water Act 2000. The Forestry Act is not relevant to the removal of quarry material from a watercourse.

Response:

Wording amended to remove references to the Forestry act and Department of Agriculture and Fisheries:
Permit to take quarry material from a watercourse ~~Forestry Act 1959 Water Act 2000~~

Submission 17

Issue: *(17.08) Mitigation and management measures*

Date: *11-02-2021*

Submitter: *Department of Agriculture and Fisheries*

Comment: (S5.5, 3rd dot pnt, pg92) Rural land fragmentation – Additional information is required on the proposed mitigation strategy

Response:
The following mitigation strategies are in place to avoid rural land fragmentation:

- Rural land fragmentation has been avoided as far as practicable by minimising disruptions to agricultural production through consulting with landholders on placement of easement to avoid areas of infrastructure and areas which will impede on stock movements.
- As the area is predominantly used for grazing, this will continue. The easement will not have access restricted by fences or gates unless by request of the landholder.
- Specific conditions in the Landholder Options Agreements have been negotiated with some landholders which state how the easement on their properties will be managed.
- The EMP Framework sub plan for land use and visual amenity considers the following during the detailed design phase of the Project:
    - Minimise the number of intersections with other infrastructure
    - Consider the placement of towers and vegetative screening of substations and maintenance areas

- Where towers are visible by road travellers for a long duration, symmetry and regular spacing will reduce the visual contrast with the broad open plains of the surrounding landscape
- Placement of towers to maximise the screening effects of undulating landforms and vegetation
- Consider placement of towers at maximum distance from roadways

Submission 17

Issue: *(17.09) Resources*

Date: *11-02-2021*

Submitter: *Department of Agriculture and Fisheries*

Comment: (S5.3.11, pg47) The draft EIS states:

Quarry resources managed by the Department of Agriculture and Fisheries (Forest Products Unit) under the Forestry Act 1959, including areas subject to sales permit, areas where a sales permit is proposed to be issued, and identified potential quarry resources are also shown on Figure 5-10.

The issue is that the Project may impact on state-owned forest products and quarry material under the Forestry Act. In particular, the Old Richmond Rd pit near Hughenden is an operational quarry accessed by local government under a sales permit issued by the Department of Agriculture and Fisheries (Forest Products Unit).

Response:

The Joint Venture Contractor has identified that materials will be sourced from existing operational quarry sites and the quarry at Old Richmond Road is not listed among the sites for use.

Submission 17

Issue: *(17.10) Waterway barrier works*

Date: *11-02-2021*

Submitter: *Department of Agriculture and Fisheries*

Comment: (S7.4.1, last dot pnt, pg219) States tower location will eliminate the need for waterway barriers. The project will require waterway barriers. This statement needs to be amended for clarity that the tower locations will reduce the need for additional waterway barriers.

Response:

Update wording from (strike through remove, **bold add**): ~~States tower location will eliminate the need for waterway barriers~~. **Towers will be strategically located to allow the corridor to span across watercourses. This will also eliminate the need for additional waterway barriers.**

Refer to Volume 4, EIS Supplement, Section 4.0 Editorial Corrections.

Submission 17

Issue: *(17.11) Terminology/typographic error*

Date: *11-02-2021*

Submitter: *Department of Agriculture and Fisheries*

Comment: (S7.5.1, Table 7-14, 5th section down, pg236) Suggest re-wording for pre-construction activities to include avoidance of waterway crossings and waterways rather than just watercourses. Waterway is a broader definition of watercourse and the table should reflect measures to avoid impacts to waterways.

Wording updated (strike through deleted, **bold added**):

Row 1 p236: The layout of temporary and permanent structures and infrastructure (including construction areas, site offices, stockpile, laydown areas, access tracks and construction camps) will be designed to minimise clearing of vegetation (in particular endangered, of concern and threshold REs), **and avoid waterways.**

Row 5 p236: Towers will be strategically located to allow the corridor to span across **waterways,** watercourses and riparian vegetation. This will also eliminate the need for additional waterway barriers and reduce the likelihood of impacts to aquatic environment. No towers should be located within a **waterway,** watercourse or its riparian zone.
Row 9 p236-2367: A Decommissioning and Rehabilitation Plan for areas to be temporarily disturbed during construction will be developed prior to construction commencing with the overall aim of minimising the amount of land disturbed at any one time during the construction of the Project. After cleared areas are no longer required (i.e. temporary construction camps, laydown areas, quarries, borrows, turning circles and access tracks), rehabilitation will commence in accordance with the Rehabilitation Plan.
Temporary construction infrastructure will be decommissioned and removed from site. The sites will then be rehabilitated to a state generally consistent with the natural environment. The Decommissioning and Rehabilitation Plan will include:

- Removal of potentially hazardous stored substances
- Remediation of any contaminated areas
- Grading of disturbed surface landscapes to a state generally consistent with a natural environment (if required) and to ensure that permanent drainage lines are not compromised
- Application of topsoil and revegetation with native species. Revegetation would use flora species of local provenance that were present prior to clearing commencing and species specific to the RE cleared at that site
- A mechanism for rehabilitation strategies to be refined throughout the life of the Project to implement methods which have been most reliable and successful
- Requirements and mechanisms for post construction monitoring and audit of rehabilitation success.

Material cleared during construction is planned to be chipped, mulched and stockpiled for reuse during rehabilitation. Materials with special habitat value, such as hollow bearing logs or trees, will be selectively removed for reuse during rehabilitation, or placed in nearby bushland. Any **waterway or** watercourse areas crossed will be restored and rehabilitated with measures to improve connectivity and provide enhancements to suitable habitat, where referenced in the Flora and Fauna Management Plan.

The Decommissioning and Rehabilitation Plan will also outline specific objectives and methodology for the following:

- Seed collection
- Flora regeneration
- Landscape architecture (i.e. topography)
- Creation of supplementary habitats (e.g. nesting boxes), if necessary.

Row 20 p238: Where infrastructure must cross waterways, areas of existing disturbance (i.e. existing tracks or clearing) will be used **and crossings will be designed in accordance with the accepted development requirements for operational work that is constructing or raising waterway barrier works to reduce the impacts of potential barriers on fish passage, and other aquatic species.** Where ~~this is~~ **it is** not safe to ~~do so~~ **use existing tracks**, the Project footprint will be minimised and large habitat trees retained. Waterway crossings in known habitat for conservation significant flora and fauna species will aim to avoid occurrences of flora species and span across the riparian habitat corridors wherever possible
Row 22 p239: All site offices, construction stockpiles and laydown/storage areas will be located within existing cleared or disturbed areas **and outside of waterways,** as a priority. This will effectively reduce the extent of impacts to remnant vegetation and fauna habitats.
Row 38, pg 240: Access tracks and bed-level crossings will be restricted to areas that are already disturbed to reduce the extend of required clearing and remove unnecessary disturbances to the natural environmental. **Where crossings intersect with waterways, they will be constructed in accordance with the accepted development requirements for operational work that is constructing or raising waterway barrier works to ensure they do not create barriers to fish passage during times of flow.**
Row 46, p 241: Erosion and sediment control measures will be developed as part of the CEMP for the Project. The requirement of erosion and sediment controls will be assessed at all **waterways,** watercourses and drainage lines intersect**ed** by the project. Erosion and sediment control measures will be installed where disturbance must be undertaken within or adjacent to wetted waterways. Erosion matting (e.g. Jute mesh) or sediment

socks (e.g. Sand-filled UV-resistant fabric tubes) will be used for earthwork activities where there is a risk of gulling or sedimentation of watercourses a**nd waterways. The accepted development requirements for operational work that is constructing or raising waterway barrier works will be used where sediment controls are installed within waterways.**
Row 67 p242: Minimising vehicle access to waterways and exposed surfaces by establishing designated **and easily identifiable waterway and** watercourse crossings.

Refer to Volume 4, EIS Supplement, Section 4.0 Editorial Corrections.

Submission 17

Issue: *(17.12) Terminology/typographic error*

Date: *11-02-2021*

Submitter: *Department of Agriculture and Fisheries*

Comment: (S8.3.1, Table 8-2, pg10) (S8.3.1, Figure 8-22, pg32) (S8.3.2, Table 8-6. Pg43)
Appendix U, (S1.3.1, Table 1-2, pg9) (S1.3.1, Figure 1-22, pg33) (S1.3.2, Table 1-6, pg43)
References to "dropping" tree pear (Opuntia monacantha)

Response:

Wording amended from "dropping" tree pear to "drooping" tree pear.

Refer to Volume 4, EIS Supplement, Section 4.0 Editorial Corrections.

Submission 17

Issue: *(17.13) Terminology/typographic error*

Date: *11-02-2021*

Submitter: *Department of Agriculture and Fisheries*

Comment: (S9.1.4, pg2) The definition of waterway under the Fisheries Act 1994 needs to be updated to include drainage feature.

Response:

Wording updated (**bold added**):
Waterways: waterways include rivers, creeks, watercourses, **drainage features** or inlet of the sea defined under the Fisheries Act 1994 for the purpose of managing impacts on fish passage.

Refer to Volume 4, EIS Supplement, Section 4.0 Editorial Corrections.

Submission 17

Issue: *(17.14) Terminology/typographic error*

Date: *11-02-2021*

Submitter: *Department of Agriculture and Fisheries*

Comment: (S9.2.3, 4th dot pnt, pg5) Fisheries Act 1994, states: "approval must be sought under the act to construct or raise assessable waterway barriers on a waterway." Is not worded correctly. The Fisheries Act provides for the protection of fisheries resources, including waterways. Any development that will impact Fisheries resources, including waterways must be authorised under the Accepted Development requirements or through a development approval issued under the Planning Act 2016. Works under the ADR must adhere to all specifications within the document including notification to DAF.

Any assessable development needs to be applied for through the State Assessment and Referral Agency.

Response:

Dot point on Fisheries Act 1994 amended as follows (strikethrough deleted, **bold added**):
The Fisheries Act is the Queensland legislation that provides for the management, use, development and protection of fisheries resources and fish habitats in Queensland. ~~Approval must be sought under the act to construct or raise assessable waterway barriers on a waterway~~. **Works within waterways (waterway barrier works) must be authorised as per the Accepted Development Requirements for operational works that is constructing or raising waterway barrier works (ADR). Any waterway barrier work that does not meet the requirements of the ADR is assessable development and requires a Development Approval through the State Assessment and Referral Agency (SARA).**

Refer to Volume 4, EIS Supplement, Section 4.0 Editorial Corrections.

Submission 17

Issue: *(17.15) Terminology/typographic error*

Date: *11-02-2021*

Submitter: *Department of Agriculture and Fisheries*

Comment: (S9.2.3, pgs5-6) Planning Act 2016 should be included in this section.

Response:

Wording amended to include the following dot point in the list of legislation, policies and guidelines relevant to identifying values and to providing guidelines on mitigation and managing impacts on surface water:

- Planning Act 2016

Refer to Volume 4, EIS Supplement, Section 4.0 Editorial Corrections.

Submission 17

Issue: *(17.16) Surface water*

Date: *11-02-2021*

Submitter: *Department of Agriculture and Fisheries*

Comment: (S9.3.1, pg8) Surface water has not been recognised as a value contributing to the primary industry that is fisheries productivity.

Response:

Amended wording in list of environmental value for surface water (**bold added**):
Surface water:

- Aquatic ecosystems – the majority of the watercourses would typically fall in the "slightly to moderately disturbed ecosystems" category. For slightly and moderately disturbed ecosystems the water quality objectives are to improve and maintain or improve (as required) respectively the existing water quality in the watercourse.
- Primary industries – the majority of surface water is utilised for stock watering with crop and pasture irrigation on a small scale **and fisheries productivity**. While some of the water storages in the area are utilised for town water supply, the majority of water resources have a value in household consumption for farmhouses.

Refer to Volume 4, EIS Supplement, Section 4.0 Editorial Corrections.

Submission 17

Issue: *(17.17) Waterway barrier works*

Date: *11-02-2021*

Submitter: *Department of Agriculture and Fisheries*

Comment: (S9.3.2, Table 9-5, pg14) The table details the location of mapped Purple and Red waterways. It does not acknowledge the multiple Amber and Green waterways, or any un-mapped waterways within the project alignment. All waterways providing for fish passage are matters of state environmental significance and are relevant for waterway barrier works triggers regardless of what colour they are mapped.

Response:

Amended wording to acknowledge all waterways for waterway barrier works as follows (**bold added**):

"The corridor selection traverses a number of waterways that are mapped as waterways for waterway barrier works. Table 9-5 presents the waterways mapped as high (red) and major risk (purple) under the waterway barrier works mapping. **The project will also cross multiple mapped amber and green waterways and potentially waterways that are not mapped. All waterway crossings including those not listed in the table below, will be constructed in accordance with the Accepted development requirements for operational works that is constructing or raising waterway barriers works (ADR). Where they cannot comply with the ADR a development approval will be sought.**

Refer to Volume 4, EIS Supplement, Section 4.0 Editorial Corrections.

Submission 17

Issue: *(17.18) water quality impacts*

Date: *11-02-2021*

Submitter: *Department of Agriculture and Fisheries*

Comment: (S9.3.7, pg52) Further dot points to be included as key recommendations to avoid/minimise impacts on water quality and water resources.

Response:

The following dot points are added/updated in the list of recommendations **(bold added):**

The following key recommendations are made to avoid/minimise impact on water quality and water resources from Project infrastructure and activities:

- Utilise existing access tracks wherever possible for access to the Project and when crossing waterways comply with DAF Accepted development requirements for operational work that is constructing or raising waterway barrier works **or relevant development approval.**
- **Locate infrastructure that does not have a functional requirement to be in a waterway outside of the main channel.**
- **Clearly identify access tracks to prevent multiple crossings and disturbance to bed and banks of waterways.**

The Construction Environment Management Plan outlines further measure to avoid/minimise impacts during construction. Refer Volume 4 Attachment I Additional Management Plans and Commitments register.

Submission 17

Issue: *(17.19) water resources impacts*

Date: *11-02-2021*

Submitter: *Department of Agriculture and Fisheries*

Comment: (S9.3.7, 1st dot pnt, pg52) Avoid/minimise direct disturbance to water features – Additional information is required on the proposed mitigation strategies.

Response:

Pursuant to Vol 3 Appendix R Field Development Plan the following design requirements will be considered during the detailed design of the project with regards to waterways:

- New on-easement and off-easement access tracks are selected to avoid establishing multiple crossings of the same watercourse where possible.
- Where watercourse bedlevel crossings are required, existing crossings will be preferentially utilised and with agreement of the landholder.
- Transmission towers will not be constructed within the high banks of watercourses, other than where it cannot be avoided (such as large braided ephemeral systems wider than 500 m e.g. Gilliat River). Clearing of vegetation to establish vehicle access across a watercourse shall not occur within 10 m of the defining high bank of a watercourse, other than where it cannot be avoided.
- Laydown areas shall not be located within 40 m of the high bank of watercourses.
- Erosion and sediment control measures shall be included in the Construction Environmental Management Plan.
- Access tracks shall: – Be a maximum of 7 m wide; – Constructed in a manner which will not undermine the existing natural bank stability and positioned so as to minimise potential interruption of low flow conditions and scour or erosion. – Be at right angles to the water flow.
-

In addition the configuration of temporary tower assembly areas will not be located within 15m of the high banks of any Major, High and Moderate risk DAF waterways. Clearing of vegetation to ground level within waterways will only be required for vehicle access and clearing of line of sight or conductor clearance will occur above ground level by hand to minimise ground disturbance and maintain bank stability.

The Construction Environment Management Plan also outlines further measure to avoid/minimise impacts during construction. Refer Volume 4 Attachment I Additional Management Plans and Commitments Register.

Submission 17

Issue: *(17.20) waterway barrier works*

Date: *11-02-2021*

Submitter: *Department of Agriculture and Fisheries*

Comment: (S9.4.4, Table 9-13, pg60) The table states that transmission towers and associated infrastructure will be located outside of active water features as far as practicable.

The proponent should be aware that any works within the bed and banks of a waterway is likely to be considered waterway barrier works and require a development approval. Any relocatable infrastructure that does not have a functional requirement to be located within a waterway is not likely to be supported. All ancillary infrastructure should be located outside of waterways. The proponent should seek pre-lodgement advice from SARA regarding waterway barrier works if any infrastructure (other than access tracks that can meet the requirements of the ADR) are proposed within waterways.

Response:

Noted.

Submission 17

Issue: *(17.21) water resources impacts*

Date: *11-02-2021*

Submitter: *Department of Agriculture and Fisheries*

Comment: (S9.5.1, 7th dot pnt, pg66) The proposal to utilise existing licenced and authorised water sources during construction - Additional information required on how this will be undertaken, to not negatively impact existing water licence holders during construction.

Response:

An update to construction water usage is provided in Volume 2 Attachment B Revised Project Description. Locations where water will be obtained are currently unknown. Licences and permits for the extraction of water will be obtained if required in consultation with Department of Resources, local councils and landholders. It is

anticipated that the risk to draw down of natural ground water resources impacting wateways is negligible/very low as construction demands will be sourced from multiple locations across the project footprint.

Submission 17

Issue: *(17.22) MSES*

Date: *11-02-2021*

Submitter: *Department of Agriculture and Fisheries*

Comment: (S21.2.3, Table 21-3, pg28) Waterways providing for fish passage.

The statement in the table does not recognise that all waterways providing for fish passage are MSES regardless of whether they are ephemeral, and that access tracks, including bed level crossings, require authority – whether that be under the Accepted development requirements or through a development approval. If the works can comply with the ADR, it is not likely that an SRI will result, and it is unlikely that an offset will be required. If works cannot comply with the ADR and development approval is required, depending on the nature of the works, an SRI may result, and an offset may be applicable.

Importance of ephemeral waterways:

Ephemeral and intermittent headwater streams are important interfaces between terrestrial and aquatic ecosystems. They are important sources of nutrients and due to the slow rates of downstream transport, they facilitate in-stream processing of energy sources for downstream ecosystems (Bond & Cottingham 2008). These waterways can act as important access paths to refuge pools and pathways for recolonisation of otherwise isolated areas after flood events. Australian native fish species are adapted to the ephemeral nature of Australian waterways, and is the norm rather than the exception, especially in western Queensland. Altering flow regimes of these habitat types can have detrimental effects on fish populations by reducing the capacity to migrate (Bunn & Arthington, 2002). A loss of connectivity due to the presence of barriers is recognised as significantly detrimental to aquatic ecosystems generally. This is due to barriers potential to isolate fish from refuge habitats and hinder recolonisation once flows return. Small barriers have their greatest impact during low flows, which coincide with the time when fish must actively seek out refuge habitats. Every effort should be made to ensure that natural connectivity is not hindered in intermittent streams, including small structures that only act as barriers during low flow (Bond & Cottingham 2008).

Response:

Amend wording as follows (strike through deleted, **bold added**):
The Project area is mapped to frequently cross four risk categories of waterways for waterway barrier works (low, moderate, high and major). **Regardless of the category, all waterways are MSES and provide vital habitat and connectivity for native fish during times of flow. Any delays in movement during this time can be detrimental to species locally and at a population level.** ~~However, almost all of these waterways are ephemeral and only flow during heavy rains or flood events. The middle section of the corridor selection, the CopperString Core, contains major ephemeral waterways that flow to the Gulf of Carpentaria, namely, the Flinders River, Fullarton River and Williams River. The remainder of the corridor selection contains mostly smaller, low to high level waterways. These lower level creeks exist as tributaries to the major river systems, and are generally ephemeral.~~
The project will require multiple waterway barrier works in the form of access tracks across waterways. These access tracks are likely to be able to be constructed in accordance with the Accepted development requirements for operational works that is constructing or raising waterway barrier works (ADR). Where crossings can comply with the design specifications within the ADR, it is unlikely that a significant residual impact will result, and offsets will not be applicable. Where any works within waterways cannot meet the ADR, a development approval will be required. Depending on the nature of the works, a significant residual impact may result and may require an offset. This will be assessed at the development application stage where applicable. ~~It is unlikely that the Project will require waterway barrier works that would impact fish passage along a waterway, or require an authority to carry out waterway barrier works, therefore no offset requirements triggered.~~

Refer to Volume 4, EIS Supplement, Section 4.0 Editorial Corrections.

Submission 17

Issue: *(17.23) Agricultural land*

Date: *11-02-2021*

Submitter: *Department of Agriculture and Fisheries*

Comment: (S21.2.5, pg12) Potential sterilization of agricultural land of state significance (ALC Class A and B land) from environmental offsets.

Response:

Refer to Volume 2 Chapter 6 Geology and Soils for information regarding the discussion of ALC Class A and B land. The predominant activity across the Project area is grazing on natural pastures. Grazing will be able to be continued as there will be no fences or barriers put along the easement to restrict access to animals. The future use of land within the easement for agricultural purposes has been considered in agreements with landholders to avoid sterilisation of the land.

Submission 17

Issue: *(17.24) Waterway barrier works*

Date: *11-02-2021*

Submitter: *Department of Agriculture and Fisheries*

Comment: (S21.4.2, pg58) Waterway crossings:

States crossings of waterways will utilise existing crossings and not constitute waterway barrier works, and states temporary crossings will meet ADR. Access tracks, both permanent and temporary do constitute waterway barrier works, however if these can be constructed as per the ADR then offsets for waterway providing for fish passage are unlikely.

Response:

Amend wording as follows (strike through deleted, **bold added**):

Crossings of waterways during construction will utilise existing crossings. **Where new permanent or temporary crossings are required, they will constitute waterway barrier works and will** ~~and crossings will not be of a type that constitute waterway barrier works. During the construction phase of the Project will utilise existing waterway crossings and where a temporary crossing is required it will~~ be required to meet the Accepted development requirements for operational work that is constructing or raising waterway barrier works (DAF 2018). **Works that can comply with the ADR are unlikely to result in a significant residual impact and no offset would be required. Where works cannot comply with the ADR, a development approval will be required. Depending on the nature of the works, a significant residual impact may result and may require an offset. This will be assessed against State Code 18 at the development application stage where applicable.** ~~Therefore waterway crossings are unlikely to require development approval and address the State Code 18: Constructing or raising waterway barrier works in fish habitats, hence will not trigger offset requirements~~.

Refer to Volume 4, EIS Supplement, Section 4.0 Editorial Corrections.

Submission 17

Issue: *(17.25) Approvals*

Date: *11-02-2021*

Submitter: *Department of Agriculture and Fisheries*

Comment: (S1.3, Table 1-2, pg9) Row that details Operational works for constructing waterway barrier works OR Compliance with Accepted development requirements for operational work that is constructing or raising waterway barrier works

- *Planning Act 2016*
- *Fisheries Act 1994*

Incorrectly identifies Queensland Treasury as approving authority.

This row incorrectly states under column "Approval Requirements" that approvals are not required.

Identifies approval requirements are not required – crossings will be required that constitute waterway barrier works, they are likely to comply with ADR. Where they cannot meet specifications within ADR they will be assessable development.

Column "Trigger" should state the correct legislative trigger operational works that is constructing or raising waterway barrier works

Column "Approval timeframe" should clarify the difference between Development approval timeframe and Accepted Development timeframe.

Response:

Amend column wording as follows (**bold added**):

"Approval" to include **operational works that is constructing or raising waterway barrier works, Fisheries Act 1994.**
"Next Steps" to include **if works can comply with the Accepted development requirements for operational work that is constructing or raising waterway barrier works (ADR), notify DAF and comply with the requirements of the document. If works cannot comply with the ADR, seek pre-lodgement advice through the State Assessment and Referral Agency to determine requirements and approvals required for works within a waterway.**
"Applicable Area" include **any works within waterways as defined by the Fisheries Act 1994**

Refer to Volume 4, EIS Supplement, Section 4.0 Editorial Corrections.

Submission 17

Issue: *(17.26) Approvals*

Date: *11-02-2021*

Submitter: *Department of Agriculture and Fisheries*

Comment: (S1.3.1, Table 1-3, pg19) Row that details approvals required for Clearing, excavating or filing within watercourses, access track through watercourses. Does not identify that filling or placing an access track through a watercourse will constitute waterway barrier works in waterways. Row to be amended to identify need to seek pre-lodgement advice from DAF through SARA, and/or notify of works if they are compliant with the Accepted Development Requirements for operational work that is constructing or raising waterway barrier works.

Response:

Amend column wording as follows (**bold added**):
"Approval" to include **operational works that is constructing or raising waterway barrier works, Fisheries Act 1994.**
"Next Steps" to include **if works can comply with the Accepted development requirements for operational work that is constructing or raising waterway barrier works (ADR), notify DAF and comply with the requirements of the document. If works cannot comply with the ADR, seek pre-lodgement advice through the State Assessment and Referral Agency to determine requirements and approvals required for works within a waterway.**
"Applicable Area" include **any works within waterways as defined by the Fisheries Act 1994**

Refer to Volume 4, EIS Supplement, Section 4.0 Editorial Corrections.

Submission 17

Issue: *(17.27) Terminology/typographic error*

Date: *11-02-2021*

Submitter: *Department of Agriculture and Fisheries*

Comment: (S3.15, pg13) The terms watercourse and waterway are used interchangeably. The definitions of watercourse and waterway differ under the Water Act and Fisheries Act. Both terms should be used when referring to waterway crossings, or waterway only, as it has a broader definition than watercourse.

Response:

Amend wording:

Section 3.15 heading to be amended to read: Waterway and Watercourse Crossings (riparian habitat).

Refer to Volume 4, EIS Supplement, Section 4.0 Editorial Corrections.

Submission 17

Issue: *(17.28) Water resources impacts*

Date: *11-02-2021*

Submitter: *Department of Agriculture and Fisheries*

Comment:

• It is expected most watercourses will be dry when crossed, as the bulk of the works within these areas are programmed for the dry season. Where this is not the case, and for larger water crossings the access to tower sites will use only existing crossings and no new watercourse crossings will be constructed except for safety reasons, (Vol. 2, p37-38), Water resources and water quality).
• Potential impacts to water resources and water quality include erosion and sedimentation, contamination, and altered surface and groundwater flow regimes. These impacts can be minimised through siting of transmission infrastructure outside of active water features, minimising vegetation clearing and land disturbance, and implementation of an erosion and sediment control plan, (Vol. 2, p37-38, Water resources and water quality).
• The likelihood of measurable impacts of the Project on water resources is low. Most of the impacts are identified to occur during the construction phase, which can be mitigated through properly implemented mitigation measures (Vol. 2, p38, Water resources and quality).
FYI – This is the latest article on the proposed water schemes for irrigated crops in Hughenden (which is an area associated with the Project area) for the Proponent's/GHD's information: https://www.abc.net.au/news/2021-01-25/hughenden-plans-economic-revival-via-water-schemes/13085764

Response:

Noted.

Submission 17

Issue: *(17.29) Cumulative impacts*

Date: *11-02-2021*

Submitter: *Department of Agriculture and Fisheries*

Comment: No cumulative impacts were identified for land, geology and soils, water resources and quality, air quality and GHG, noise and vibration, social and cultural heritage (Vol. 2, p92, Cumulative Impacts).

Response:

The nature of the project over a long linear area with minimal disturbance across the project footprint will not have a cumulative impact on the identified areas.

Submission 18 – Email

Issue: *(18.01) Terminology /typographic error*

Date: *12-02-2021*

Submitter: *Round Oak Minerals*

Comment: Round Oak Minerals Pty Limited, through its subsidiary, Exco Resources (Qld) Pty Ltd (collectively referred to as Round Oak), owns the Wynberg Mining Lease ML10011 as well as a number of exploration permits through which the current alignment of what appears to be the 'CopperString Core' section of the Copperstring Project runs. The Copperstring EIS identifies at section 4.12.3 Table 4-19 that the ML 100111 is in application phase. However, the mining lease was granted on 31 October 2019 (i.e. almost two months before the date of the EIS).

Response:

CuString has reviewed the corridor selection at this location and will amend corridor to provide increased buffer distance between the corridor and the pits on ML100111. This change has been sent to Round Oak Minerals for comment. The alignment is still within the endorsed investigation buffer / study area as defined in the Project Terms of Reference. Changes to the alignment are included in the Volume 4 EIS Supplement Section 4.1 Changes to Project Description.

Amend wording in table to show ML100111 is in application phase. Refer to Volume 4, EIS Supplement, Section 4.0 Editorial Corrections

Submission 18

Issue: *(18.03) Land Acquisition and Tenure*

Date: *12-02-2021*

Submitter: *Round Oak Minerals*

Comment: It is understood that a 120m wide easement is being sought and there will be double circuit 330 kV transmission lines, although it is not clear whether a transmission tower is to be located on the Mining Lease area (section 2.5.2 of the EIS)1. Section 403 of the Mineral Resources Act 1989 (Qld) makes it an offence for a person to erect a structure on a granted mining lease without the consent of the holder of the Mining Lease and the underlying landowner. This particular legislative restriction is not identified in Chapter 4 of the EIS 'Legislation and Approvals'. We are aware the Proponent is negotiating an easement with the underlying landowner but Exco Resources (Qld) Pty Ltd has not provided its consent to the infrastructure being located on its mining lease. There is no detail in the EIS regarding how the interface with this Mining Lease is to be dealt with.

Response:

CuString Pty Ltd is still in negotiation with Exco Resources (Qld) Pty Ltd regarding this matter.
Volume 3 Attachment E Land Acquisition Protocol provided a detailed step by step engagement and negotiation process with landholders. This process is ongoing and continuing. Each individual land holders has a dedicated land agent. No further information is required.

Submission 18

Issue: *(18.04) Corridor Selection*

Date: *12-02-2021*

Submitter: *Round Oak Minerals*

Comment: The current alignment is not acceptable to Round Oak/Exco Resources (Qld) Pty Ltd due to the proximity of the proposed transmission infrastructure to planned open-cut pits at Wynberg and the consequent impacts that mining activities may have on the Proponent's infrastructure. The revised location of the

Proponent's assets is within the blast exclusion zone for the open cut pits (which are reflected in Figure 2 of the Attachment).

Response:

CuString has reviewed the corridor selection at this location and will amend corridor to provide increased buffer distance between the corridor and the pits on ML100111. This change has been sent to Round Oak Minerals for comment. The alignment is still within the endorsed investigation buffer / study area as defined in the Project Terms of Reference. Mapping of the new corridor alignment in relation to Round Oak Minerals can be found in Volume 4 EIS Supplement Section 4.1 Changes to the Project Description.

Submission 19 – Email

Issue: *(19.05) Project Description*

Date: *12-02-2021*

Submitter: *Townsville City Council*

Comment: Multiple parts of the EIS state that a new substation connecting with the existing Powerlink transmission lines as being near Woodstock or in Woodstock, with this also being referred to as Woodstock Substation. The location for the new substation, adjacent to Ayr Ravenswood Road, is substantially closer to the townships of Clare, Millaroo and Ravenswood; furthermore, the suburb of Woodstock is located entirely within Townsville City Council LGA, whereas the new substation is to be located within Burdekin LGA.

Response:

The naming convention for the project is a matter for the CopperString Project. The substation area will continue to be referred to as Woodstock. The location has been clearly identified on all maps and plans to avoid such a confusion. No further information is required.

Submission 19

Issue: *(19.06) Project Description*

Date: *12-02-2021*

Submitter: *Townsville City Council*

Comment: The Woodstock Camp / Laydown Area appears to be located at Mingela. While the location is only indicative this is a substantial distance from Woodstock and located within Charters Towers LGA. It is recommended to amend the name of this camp/laydown area to avoid any confusion about its location. It is acknowledged that it may be logical to give the name of this camp / laydown area the same name as the new substation whose construction it services and is associated with, in which case please refer to the abovementioned comments regarding the substation name and location.

Response:

The naming convention for the project is a matter for the CopperString Project. The camp or laydown area will continue to be referred to as Woodstock. The location has been clearly identified on all maps and plans to avoid such a confusion. No further information is required.

Submission 20 – Email

Issue: (20.01) *Landholder Impacts*

Date: 12-02-2021

Submitter: *Newmont Australia*

Comment:

"The project development includes construction of extra high voltage (HV) overhead transmission lines from Woodstock (near Townsville) to Mt Isa in western Queensland. The transmission lines will traverse the northern section of Mt Leyshon mine as well as adjoining pastoral properties currently under control of Newmont Australia. This review is to identify potential risks to the Mt Leyshon operations area and in particular, the receiving environment for which Newmont Australia is responsible under their Environmental Authority (EPML00863713).

The current project has identified two (2) potential routes for the HV line across Newmont Australia controlled properties (Newmont Australia supplied topographic map). The transmission line will traverse the Charelle and Latan pastoral leases as well as the northern section of ML10144 mining lease. Both the current and alternate proposed easements will intersect the primary access road into the Mt Leyshon mining lease area just to the south of Clarke Creek. The current proposed alignment also passes adjacent to the rehabilitated NNTD and associated sump."

Response:

Noted.

Issue: *(20.02) Weed Management*

Date: *12-02-2021*

Submitter: *Newmont Australia*

Comment: Invasive plants assessment is outlined in Volume 2 Chapter 8 – Biosecurity. Depending on source, the assessment identifies 16 to 214 introduced flora species across the project area, including 14 Weeds of National Significance (WoNS) and 27 restricted invasive species (Category 3, Queensland Government). Some species identified in the 2019 TropWATER Weed Management Plan for Mt Leyshon (James & Templeman 2019) are not identified within Chapter 8 or Volume 3, Appendix P (Ecological Assessment). These include Calotrope (Calotropis procera), as well as species that are considered priority weeds in the Burdekin Dry Tropics NRM region or Charters Towers Regional Council area e.g. Snake weed (Stachytarpheta spp.), Noogoora Burr (Xanthium occidentale) and Guinea Grass (Megathyrsus maximus), among others. The proposed vegetation management strategy is avoidance where possible and “flattening” of vegetation rather than wholesale removal where practical. This strategy, as described, does not discriminate between native vegetation and weeds. Table 8-8 identifies project personnel are required to comply with land access requirements, including clean down and sign in /out where required. In addition, Landholder Biosecurity Management Plans (prepared in accordance with Section 94G of the Biosecurity Regulation) must be issued to Construction Contractors and complied with by personnel.

Response:

Pre-clearance weed assessment will be undertaken as part of the early works for the project. At this stage all locally important weeds will be identified. The Construction JV has developed a Construction EMP which incorporates weed and biosecurity measures and is included in Volume 4 Attachment I Additional Management Plans and Commitments Register.

Submission 20

Issue: *(20.03) Soil and Erosion*

Date: *12-02-2021*

Submitter: *Newmont Australia*

Comment: A concept erosion and sediment control plan has been issued under the EIS (Volume 3 – Appendix S). The erosion risks will be greatest during preliminary access works and clearing for towers. The project brief indicates works will be constrained where practical to the dry season, although the indicative timeline for operational works in the vicinity of Mt Leyshon (Renewable Energy Hub) is February-September 2021. A number of erosion and sediment control approaches have been identified to minimise erosion risk. The potential exists for the use of chemical stabilisers and /or plant growth promoters (eg fertilisers). Recognition of the potential water quality risks posed by use of these measures need to be considered by the proponents. Constructed drainage lines will deliver flows in rainfall events to adjacent streams. Although Erosion & Sediment Control, and Stormwater Management Plans have been identified, there is no indication of water quality management for other than potable purposes.

Response:

The Joint Venture Contractor has stated there are no potential chemical stabilisers or plant growth enhancers that will be used on the Project. A hydroseed/mulch may be used for rehabilitation at certain locations along the alignment.

Submission 20

Issue: *(20.04) Water Quality Impacts*

Date: *12-02-2021*

Submitter: *Newmont Australia*

Comment: Plumtree Creek and the Stock Dam are in the vicinity of the powerline easement. Although the EIS states disturbance to creek lines will be avoided where possible, it does not preclude the risk of disturbance. The presence of measurable metals in some sediments across this area suggests additional care will need to be taken to avoid migration to Clarke Creek should any disturbance occur.

Response:

Noted.

Submission 20

Issue: *(20.05) Contaminants*

Date: *12-02-2021*

Submitter: *Newmont Australia*

Comment: Concept management plans are described for managing hazardous materials and waste. Concept plans are also described for managing and remediating spills. It is unclear if stakeholders will be advised if a spill occurs & if advice on remediation activities will be communicated.

Response:

Noted that Newmont would like to be advised of any spills and any remedial actions. The Construction EMP outlines procedures for managing hazardous waste and materials (refer Volume 4 Attachment I Additional Management Plans and Commitments Register).

Submission 20

Issue: (20.*06) Vegetation Quality*

Date: *12-02-2021*

Submitter: *Newmont Australia*

Comment: The Newmont Australia supplied imagery indicates the HV transmission line will pass over the NNTDN sump and surface water site SW106. Vegetation (Melaleuca spp.) in the area between the sump and SW106 has previously reflected impacts of shallow surface disturbance from a combination of high groundwater levels and feral pig activity. In recent years there has been some recovery by vegetation in this area. Due to the potential sensitivity of vegetation in this area, care should be taken to minimise any ground disturbance.

Response:

Noted.

Submission 20

Issue: *(20.07) Landholder Impacts*

Date: *12-02-2021*

Submitter: *Newmont Australia*

Comment: Copperstring 2.0 has identified that construction will occur over a number of months along Renewable Energy Hub section which includes the Mt Leyshon lease areas. Access restrictions will be required during the construction phase of the project. This has the potential to conflict with both general Mt Leyshon site access and access to a number of compliance and interpretation surface water, groundwater and onsite water storages.

Response:

Noted.

Submission 20

Issue: *(20.08) Potential Impacts*

Date: *12-02-2021*

Submitter: *Newmont Australia*

Comment: Other risks to the Mt Leyshon operations area that are not necessarily associated with the receiving environment include:

- Restricted access to the ML site due to construction activities;
- Increased vehicular activity & associated road impacts;
- Management of shared road infrastructure;
- Increased dust emissions;
- Disturbance to adjacent landforms;
- Intersection with existing transmission line through northern section of Mt Leyshon lease area;
- Blasting risk to existing reclaimed facilities (identified in EIS Exc summary as may be required);
- Possibility of increased fire risk to local area from construction activities;
- Waste management;
- Damage to fences and other infrastructure;
- Water resources for dust management / suppression & contaminant risk;
- Rehabilitation of disturbed areas.

Response:

Noted. These matters are being addressed by CuString in consultation with the landholder. All of these matters have been addressed by the Draft EIS sections or covered by recently developed management plans prepared by the Construction JV for the project including but not limited to those mentioned above as well as a Construction Methodology Management Plan (Refer Volume 4 Attachment I Additional Management Plans and Commitments Register).

Submission 20

Issue: *(20.09) MSES*

Date: *12-02-2021*

Submitter: *Newmont Australia*

Comment: The draft EIS identified some regulated watercourse areas within the footprint of the Mt Leyshon lease area (Figure 7.31C, Chapter 7, Volume 2). These regulated watercourses were extracted from the Queensland Globe database and are classified under MSES as Category R – GBR riverine. This infers a level of regulation of the watercourses. However, further review indicates that dataset has not been interrogated correctly, as the identified watercourses are historic drainages that now lie under rehabilitated landforms and as such no longer physically exist. This anomaly will be addressed in the 2019-20 REMP. An area both on and adjacent to the rehabilitated landforms has also been assessed as "Wildlife habitat – special least concern animal (Figure 7.31C, Chapter 7, Volume 2). Further investigation is underway to determine the context of this designation and commentary will be included in discussion within the 2019-20 Mt Leyshon REMP.

Response:

Noted.

Submission 20

Issue: *(20.10) Vegetation Clearing*

Date: *12-02-2021*

Submitter: *Newmont Australia*

Comment: Although there is information addressing vegetation clearance and prevention of weed species introduction, the EIS does not currently address management of cleared vegetation material from powerline corridors and other areas of infrastructure, and in particular management / disposal of cleared weeds.

Response:

Noted. Clearing methodologies have been outlined in the Construction Methodology Management Plan and this is included in Volume 4 Attachment I Additional Management Plans and Commitments Register.

Submission 20

Issue: *(20.11) Impacts to Infrastructure and Services*

Date: *12-02-2021*

Submitter: *Newmont Australia*

Comment: The proposed HV corridor for Copperstring 2.0 is expected to intersect with the existing powerline infrastructure on the northern section of the Mt Leyshon lease. Current review of the document does not provide any information / consideration addressing management of these types of structures.

Response:

Noted. CuString is in ongoing negotiations with Ergon regarding service crossings. These discussions will have a direct influence on the detailed design. Construction methodologies are also being developed with the asset owner and these details are not available at this time. No further information is required for the final EIS.

Submission 20

Issue: *(20.12) Water Quality Impacts*

Date: *12-02-2021*

Submitter: *Newmont Australia*

Comment: The proposed HV corridor for Copperstring 2.0 is expected to intersect with the existing powerline infrastructure on the northern section of the Mt Leyshon lease. Current review of the document does not provide any information / consideration addressing management of these types of structures.

Response:

Noted.

Submission 20

Issue: *(20.13) Soil and Erosion*

Date: *12-02-2021*

Submitter: *Newmont Australia*

Comment: "Indicative construction timing is laid out in Appendix S, volume 3 - Concept-erosion-and-sedimentcontrol-plan.pdf. Based on indicative timings, works in the Mt Leyshon area will occur between Dec 21– August 22 (Figure 1-2), with transmission line construction nominally between February and September (Figure 1-3). This timing coincides with the nominal wet season for Mt Leyshon with the potential for increased erosion risk during rainfall events. Given the unpredictable timing of isolated storms in the Mt Leyshon area, increased erosion management may be required, especially areas adjacent to waterways."

Response:

Noted.

Submission 21 – Email

Issue: *(21.01) Economic analysis*

Date: *11-02-2021*

Submitter: *APA Power Holdings*

Comment: The economic assessment is neither robust nor transparent and it does not provide confidence in the claimed benefits in relation to reductions in energy costs for users in the North West Power System or transparency to the potential impacts on other electricity users in Queensland.

The Draft EIS identifies that CopperString is expected to result in an average increase in wholesale costs to all Queensland consumers of $1.30/MWh. In addition to this, APA estimates that the cost of CopperString will add approximately a minimum of $2.40/MWh to the cost of electricity from network charges that result from the regulation of the asset in the Queensland network. However, these impacts are not transparently identified or assessed in the Draft EIS.

Using the example of the typical Queensland household consumption which is between 3.4 and 9.7 MWh/year, the above estimates would add between $12.58 and $35.89 per year to the average cost per household. By comparison, the Australian Energy Market Commission (AEMC) recently rejected a Rule change application that would have increased household consumer power bills by $6 per year (NSW) and $4 per year (South Australia) just for the Project EnergyConnect. Importantly, the AEMC found that consumers should not pay now for benefits in the future. The potential impacts on large commercial and industrial users have not been assessed and they may be significant in the context of business viability as the cost of energy for major users continues to attract significant attention.

Despite this significant increase in costs to ordinary Queenslanders and Queensland commercial and industrial users, it is not clear who the primary beneficiaries are (i.e. current or future energy users in the North West Power System, or the private developers of CopperString). The Draft EIS does not transparently assess the benefits and impacts from an economic perspective.

There is a well understood industry standard process for determining the economic benefit of an investment in electricity transmission assets, being the Regulatory Investment Test for Transmission (RIT-T). The RIT-T is designed to provide an objective and transparent assessment of electricity transmission assets. Adoption of the

RIT-T methodology would provide a robust and transparent result that would be readily accepted by stakeholders.

The claimed mining expansion and a twofold increase in electricity consumption as a result of a reduction in wholesale electricity costs is unrealistic. Amongst other flaws, the ACIL Allen modelling does not appear to factor into its estimated saving the costs of CopperString, and it is clear that it omits both connection costs of the mining site to the electricity grid and mine life capital expenditure. In addition, the basis for the 'fuel and variable operating cost savings', which make up around 50% of the electricity market benefits, are not made transparent in the report. Adjustment for these real world costs would materially reduce any claimed benefits of CopperString.

- APA's suggestion the economic assessment is neither robust nor transparent is incorrect. If the average impact on Queensland electricity consumers is calculated based on a whole-of-Queensland basis for both a Business-as-usual and CopperString case, the average reduction of delivered electricity prices in the State's economy goes down by an average -$2.17/MWh over the first 10 years]. Much of the analysis quoted considers only the impact on existing NEM customers and while this is the largest customer group, this group excludes the North West Minerals Province (NWMP) and therefore does reflect a change in the economy-wide delivered electricity prices in Queensland
- The CopperString Project is being developed to join the North West Power System to the NEM. The AER's RIT-T cannot be applied in practice where the beneficiaries of a transmission investment are not customers of the NEM. Reform of the electricity market in the NWMP is a decision that can't be made via a RIT-T, it is a policy decision based on economic, technical and financial assessments of the Queensland Government (as the ultimate authority for electricity supply infrastructure under the National Electricity Law framework), and other environmental and social policy objectives.
- The party who proposes a RIT-T should be a registered Transmission Network Service Provider (TNSP) in the NEM, however it is not possible to be a TNSP without owning an asset in the NEM already. CuString is therefore not required to do a RIT-T.
- The objective of the CopperString project is to materially increase minerals mining and processing production in North and North-West Queensland, and to unlock stranded high-quality renewable energy, particularly wind resources. These objectives align very closely with the policies of State and Federal Governments, and the Northern Queensland community, however these objectives go beyond the objectives of the RIT-T. Numerous government agencies and other stakeholder groups have noted in formal submissions or reports, and informally, that the RIT-T does not adequately consider broader economic, environmental and policy objectives. National Electricity Law, particularly the authority given to State Governments, purposefully enables a State Government to make decisions that are typically delegated to the AER.
- In considering the decision to implement the CopperString transmission network, the State is and will continue to make detailed financial and economic assessments including the direct benefits and costs to electricity customers. Importantly, this consideration will include customers in the NWMP that are not currently represented under the NEM framework or of the concern of the AER. An Environmental Impact Statement has been prepared and subjected to a public consultation process, an Independent Expert will have considered the efficiency of capital costs, the State will carry out a RIS on the project as part of the legislative process in assessing derogations. The RIS is a public benefit/cost assessment process and public comment will be sought as part of this process.
- An important consideration of benefits to customers is the market structure. The absence of a flexible and competitive electricity market in the NWMP has been identified as a constraint on investment for many years. The EIS analysis is conservative in that it doesn't seek maximise the customer benefits that result of introducing a new market framework in the NEM and the modelling of increased minerals production focuses predominantly on a simple reduction in price. Introduction of the NEM market framework to the NWMP will benefit customers because the regulatory framework and competitive landscape aims, as noted in National Electricity Law, to benefit customers.

- In 2008 a report prepared by the Queensland Department of Mines and Energy (North West Queensland Energy Demand Working Group, Final Report) found that "…some proposed [minerals mining] projects have found it difficult or impossible to secure long term, firm energy supply contracts…" noting, "This is principally because of the difference in investment horizons and commitment periods in the two industries, but also because the energy market in the isolated North West Queensland system is essentially characterised by bilateral contracting rather than a supply "pool" servicing a diversified and continuing load, as exists in the National Electricity Market". The RIT-T does not account for the benefits of an improved market structure via implementation of the NEM because it assumes all customers are already part of the NEM.
- When considering the price impact, of the costs of CopperString 2.0, on consumers in Queensland, it is made clear in the Economic Section (page 62): "This comparison excludes the cost of CopperString 2.0. The final cost of CopperString 2.0 borne by customers will depend on capital costs, operating costs, the cost of capital and any financial contribution from government. The allocation of these costs across different customer groups including between customers in the Mount Isa region and existing NEM customers in Queensland will also impact price changes". At this stage we are unable to undertake this analysis since we have not been given the detail. However, it is made clear in the report that the economic analysis takes into account an assumed capital cost and operating cost of CopperString 2.0.
- More recent financial modelling of the CopperString Project has estimated that the annual increase in cost of Business / Residential customer Network Use of System (NUOS) charges to be for Energex customers $7.63 / $2.90 and Ergon $4.93 / $2.22.
- The $1.30/MWh wholesale price impact on consumers in the existing Qld NEM region referenced by APA occurs between 2025 and 2030 only - and not all years of the projection period. Further, the wholesale price impact represents an increase of about 0.4% of a typical household bill (this is estimated by taking the AER's DMO 3 Draft Determination for 2021-22 household bill estimate and adding on the $1.30/MWh multiplied by the typical usage of a residential customer).

Submission 21

Issue: *(21.02) Economic analysis*

Date: *11-02-2021*

Submitter: *APA Power Holdings*

Comment: The modelling carried out by ACIL Allen is deficient for the purposes of the TOR and the EIA guidelines and it falls short of what would be required for a RIT-T. Some observations are:

- the current price of energy is not adequately assessed and is incorrect and/or incomplete;
- the expected price to be paid by customers if CopperString is constructed is not presented in a way that can be compared to the existing prices and is misleading such that it excludes the CopperString transmission costs and all other transmission, distribution costs, losses, and market charges;
- the claims about renewable energy penetration rates are not supported by empirical evidence; and
- reference is made to other reports and materials which have not been supplied and this could not be tested or validated.

Response:

- The modelling carried out by ACIL Allen is robust and not deficient, in fact the Economics Section Table 5.1 provides the technical parameters of the existing power stations in the NWMP assumed in the modelling, and Figure 3.2 provides the assumed gas prices into the power stations in the Mt Isa region. From these, one can estimate the SRMCs. Assumed capital costs for a CCGT of AUD$1,400/kW, and a Fixed O&M of $11.3/kW/year (in 2020 dollars) and assumed a capital cost for a OCGT of AUD$965/kW, and a Fixed O&M of $16.7/kW/year (in 2020 dollars). Assumed post tax real WACC for power generation projects of 2.6 percent.

- The Economic analysis looked at wholesale cost impacts only. It implicitly assumes that other costs (such as fees, distribution costs) are largely the same in both the BAU and NEM Connected cases. The NEM connected comparison to BAU included an estimated CopperString cost to the node component.
- All analysis was based on comparing delivered price from existing generation into the NWPS with a delivered price from the NEM including transmission cost to the NWPS connections, so direct comparison could be made. The CMMC feasibility study assumptions are reflective of the analysis used.
- Anecdotal information on current costs from customers in the NWMP have confirmed the cost assumptions used by ACIL are representative. This is further supported by the published Feasibility study by Copper Mount Mining Co (CMMC) for its Eva Project (May 2020) page21-27 which indicates a cost of $187.70/MWh for the current supply (informed by offers of supply) and estimated $98.42/MWh for NEM connected cost when CopperString is completed. (costs are quoted in USD in the feasibility study and have been converted to AUD at the report stated FX rate). The cost differential is a 48% reduction which is higher than the assumed 40% reduction used in the Resource analysis(CMMC report extract below -note USD prices quoted).

21.9 Power Costs

Electrical power will initially be supplied from the North Queensland grid at an anticipated unit cost rate of $0.1211/kWh. Following completion of the copper string project, allowing for power transmission from the East coast of Queensland, this power cost will drop to $0.0635/kWh, as per the current agreement. The average power draw for each drive has been calculated from the installed power and application of utilization and efficiency factors depending on the duty. Comminution equipment power draws have been estimated using Ausgrind and the 70th percentile design case for ore competency and hardness.

- The cost of gas has been assessed according to ACIL Allen's gas market model combined with knowledge on factors that contribute to longer term contract offers for consumers in the Mount Isa Region.
- ACIL Allen has not run a sensitivity with lower gas prices. Indicatively, a reduction in gas cost of $1/GJ will reduce the cost of gas fired generation in Mt Isa in the BAU case by about $7.20/MWh. But gas fired generation represents about 70-80% of total generation in the Mt Isa region (the remainder is liquid fuel, and we conservatively assume development of some solar in the BAU case. For a reduced gas-price the average electricity price impact in the region would be about $5.50/MWh. However, lower gas prices will also reduce the wholesale prices in the current Qld region of the NEM since gas plant tend to set prices during the evening peak. In the NEM it is the less efficient gas plant that tend to set the price in the evening peak, and their costs would decrease by about $10/MWh. Assuming these plants are influencing the price outcome in the NEM for 3-4 hours per day (during the evening peak) then the NEM wholesale price reduction might be about $1.70/MWh. Hence for a $1/GJ gas cost reduction, the net differential in energy costs between the BAU and NEM connected case for Mt Isa might reduce by about $3.80/MWh ($5.50 – $1.70).
- ACIL Allen has done a Gas Market Update in March 2021 of the broader gas market and how that is likely to impact Mount Isa gas supply costs. The update takes account of market developments and Covid impacts on the broader gas market. There has been a slight reduction in the forecast gas price in the short term but the trend for medium and long term prices is largely unchanged.
- The gas market remains inherently volatile, noting the ECGM prices in Victoria have experienced peaks of over $30/GJ in recent weeks (to 12 July 2021).
- Gas commodity and gas transport procurement is complex for a buyer, particularly a small buyer such as a mid-tier or small mining company in the NWMP. Efficiently managing this high value procurement and contract management task is a significant drag on resources and a lack of expertise increases the risk associated with such procurement.
- Alternatives for the NWMP are limited to local generation options which –
- lock in the current high-cost structure based on gas/diesel generation, smaller unit sizes with higher unit capex and lower efficiency
- Are based on bilateral contracting with no market structure to drive economic, competitive supply (currently only one supplier), adding significant complexity and risk that can only be borne by a customer
- Renewable energy development has not progressed despite the abundant resource. A flat demand profile, high cost of firming with no market structure, technical issues with high penetration of renewables in an isolated grid are issues impacting.

- ACIL assumptions on renewable penetration rates in the NWPS under BAU case were considered to be aspirational as no renewable generation investment has been made in this network to date despite high energy cost from gas fuel. ACIL assumptions on renewable penetration rates in the NWPS under BAU case were considered to be aspirational as no renewable generation investment has been made in this network to date despite high energy cost from gas fuel.

Submission 21

Issue: *(21.03) Economic analysis*

Date: *11-02-2021*

Submitter: *APA Power Holdings*

Comment: APA's review focussed on the electricity sector analysis because CopperString's stated rationale for the project is "to provide substantial, sustainable, and long-lasting economic benefits to the region through the provision of reliable and more competitively priced electricity". In addition, CopperString in their application for a Transmission Authority state the purpose of the project is "to provide benefits to the electricity market and stimulate expansion of renewable energy projects along its length". CopperString has not properly addressed the terms of reference in that it cannot demonstrate it will provide a net economic benefit. Further, it has not adequately considered alternative courses of action. Key findings include that:

- The basis for the 'fuel and variable operating cost savings', which make up around 50% of the electricity market benefits, are not made transparent in the report. Notwithstanding this, analysis indicates they may be significantly inflated (with this potentially being due to either the use of marginal price, not the marginal cost of supply, to determine the change in electricity generation cost, or inflated SRMCs of the generators whose dispatch would be reduced under the NEM connected case). Modelling does not appear to include all of the economic costs and hence overstates the benefits.
- The link between individual customer electricity prices and their electricity-related investment decisions is ignored and hence demand increases are overstated.
- The lack of renewables in the BAU case ignores a credible increase in renewable penetration.
- The lack of any options analysis ignores a range of equally credible scenarios.
- There is no sensitivity analysis around key input assumptions.
- Emissions forecasting is fundamentally flawed as it ignores regulatory settings.
- Economic regulatory considerations have been omitted.

There are several supporting reports referenced in Appendix AB (ACIL Allen Report) from various consultants including Soren, Izmin and KPMG etc which have not been made available. This necessarily limits the scope of our review.

One critical matter is the assumption (Appendix AB, P30) that "Assuming CopperString can reduce power costs by 40 per cent…". No modelling, calculations or empirical evidence is provided to support this assumption, and yet the entire economic rationale for the project rests largely on this assumption. Another is the annual estimated revenue for CopperString 2.0 set out in Appendix AB figure 7.2 which references KPMG's financial analysis and the post-tax revenue model (PTRM) which has not been provided. In addition to these matters, it is noted that:

- Despite CopperString consulting with AEMO, CopperString is not included in the AEMO Integrated System Plan (ISP); and
- Despite CopperString consulting with Powerlink, CopperString is not considered in the Powerlink Transmission Annual Planning Report (TAPR).

Response:

- The basis for the 'fuel and variable operating cost savings': ACIL have used the cost of supply, and not the marginal price to estimate the cost of electricity in the NWMP in the BAU case.
- The BCA was undertaken in accordance with Infrastructure Australia Guidelines and includes sensitivity around key assumptions especially around the major sources of benefit. A sensitivity is also calculated based on no increase in mineral production benefit to demonstrate the robustness of the analysis and project outcomes.

- Anecdotal information on current costs from customers in the NWMP have confirmed the cost assumptions used by ACIL are representative. This is further supported by the published Feasibility study by Copper Mount Mining Co (CMMC) for its Eva Project (May 2020) page21-27 which indicates a cost of $187.70/MWh for the current supply (informed by offers of supply) and estimated $98.42/MWh for NEM connected cost when CopperString is completed. (costs are quoted in USD in the feasibility study and have been converted to AUD at the report stated FX rate). The cost differential is a 48% reduction which is higher than the assumed 40% reduction used in the Resource analysis.
- Emissions forecasting: ACIL make clear its assumptions on the emissions factor of the generators.
- ACIL includes 100 MW of solar in Mt Isa in the BAU case and does not ignores a credible increase in renewable penetration. Reasons for why the solar capacity does not grow beyond this value are also included.
- Renewable energy development has not progressed despite the abundant resource. A flat demand profile, high cost of firming with no market structure, technical issues with high penetration of renewables in an isolated grid are issues impacting.
- ACIL assumptions on renewable penetration rates in the NWPS under BAU case were considered to be aspirational, as no renewable generation investment has been made in this network to date despite high energy cost from gas fuel.
- Lack of options analysis: ACIL Allen chose the least cost BAU case. Other prospective projects such as the Vast solar project could have been included - but that would increase the cost in the BAU and overstate the benefits in their view.
- CopperString is not included in the AEMO ISP and Powerlink TAPR as CopperString has not yet reached committed status which is a condition for inclusion in the formal planning processes for these organisations.
- In considering the decision to implement the CopperString transmission network, the State is and will continue to make detailed financial and economic assessments including the direct benefits and costs to electricity customers. Importantly, this consideration will include customers in the NWMP that are not currently represented under the NEM framework or of the concern of the AER. An Environmental Impact Statement has been prepared and subjected to a public consultation process, an Independent Expert will have considered the efficiency of capital costs, the State will carry out a RIS on the project as part of the legislative process in assessing derogations. The RIS is a public benefit/cost assessment process and public comment will be sought as part of this process.

Submission 21

Issue: *(21.04) Modeling*

Date: *11-02-2021*

Submitter: *APA Power Holdings*

Comment: The ACIL modelling of the “Net efficiency benefits” ($4,648.7 undiscounted) rests largely on the “fuel and variable operating cost change” ($5,488.5, undiscounted). The derivation of this saving is not properly explained, however, it appears that ACIL has:

- used either the price of the commodity (electricity), not the cost of producing the commodity itself, as the basis; or
- inflated estimates of the short-run marginal cost (SRMC) of the generators whose dispatch would be reduced under the NEM connected case.

If so, ACIL’s modelling approach will materially over-estimate the “Net efficiency benefits”. This reasoning would apply unless ACIL is making some other offsetting reduction in the benefits which it is including in its benefit-cost modelling to reflect the contribution that the recovery of sunk investments and fixed costs are making to final prices under the BAU case. There is no need to augment the existing (gas) generation fleet over the forecast time horizon under the BAU case, as:

- the BAU forecast demand indicates a material decline in demand (everything else being equal, limiting the need to invest in new generation capacity); and

- the current generation fleet is dominated by Diamantina Power Station (DPS), which ACIL assumes will remain open until 2050.

These features of the BAU case reinforce our view that it is the SRMCs of the plants that would be avoided under the "with CopperString" case (or NEM connected case) which would form the only material economic benefit to the electricity industry of the "with CopperString" case. The overall impact of this error would be to materially overstate the "Net efficiency benefits".

Response:

- The basis for the 'fuel and variable operating cost savings': ACIL have used the cost of supply, and not the marginal price to estimate the cost of electricity in the NWMP in the BAU case.
- ACIL has included 100MW of renewable generation in the BAU case to supplement supply and decrease emissions profile.

Submission 21

Issue: *(21.05) Modeling*

Date: *11-02-2021*

Submitter: *APA Power Holdings*

Comment: (First Column Response)

It is not clear that the economic modelling takes into account all of the economic costs required to facilitate the delivery of electricity to all of the mines that are assumed to consume electricity under the "with CopperString 2.0" case. Some examples underpinning this observation include:

- it is not clear how or whether, if at all, the incremental economic cost of catering for increasing demands on the existing infrastructure has been incorporated into the economic analysis;
- it is not clear whether or if at all any of the incremental network costs required to service some of the isolated mines mentioned (and potentially others that are included, but not mentioned in the report) are included in the analysis, noting that many of the additional mines listed are well away from the CORE CopperString project (and/or existing infrastructure);
- the required capital costs related to the extension of mining operations at Phosphate Hill (extended 2028 to 2050) and Cannington (extended 2032 to 2056) are explicitly excluded by ACIL. Such capital investments would be required for extension of mining operations and should be included; and
- the required capital costs for the development of new mining activities have been intentionally excluded.

The overall impact of these exclusions and omissions would be to materially overstate both the demand and the "Net efficiency benefits".

Response:

- The "CORE CopperString project and/or existing infrastructure" includes the southern leg from Dajarra Road substation to major southern substations. Cost of connection to these substations from the various mines were calculated and added to the CopperString Capex estimates for inclusion in the economic modelling. These costs do not form part of the regulated asset base and would be included in the mine development costs either as a capital cost or as an unregulated charge over the LOM.
- ACIL state in their report that cost of mine development has not been included. They do run a sensitivity on the BCR analysis which also excludes additional mineral production to show lower boundary benefits. It should be noted that the economic analysis also excludes the additional mine development capital and employment benefits from the economic impacts which are very significant.

Submission 21

Issue: *(21.06) Modeling*

Date: *11-02-2021*

Submitter: *APA Power Holdings*

Comment: The price comparisons of wholesale energy are potentially misleading on the basis that the BAU sent out generation cost is compared with NEM wholesale electricity prices. It is clear that NEM wholesale electricity is not available to the region without the construction of CopperString so this comparison is invalid. The comparisons also omit other important factors such as the marginal loss factor of transmitting electricity to this region. Based on the equivalent experience at Broken Hill, the MLF would be expected to be in the order of 1.1. This increases costs by at least 10% over that represented in the report. The overall impact of these errors would be to materially overstate the "Net efficiency benefits".

Response:

- The Economic analysis looked at wholesale cost impacts only. It implicitly assumes that other costs (such as fees, distribution costs) are largely the same in both the BAU and NEM Connected cases. The NEM connected comparison to BAU included an estimated CopperString cost to the node component.
- All analysis was based on comparing delivered price from existing generation into the NWPS with a delivered price from the NEM including transmission cost to the NWPS connections, so direct comparison could be made. The CMMC feasibility study assumptions are reflective of the analysis used.
- Anecdotal information on current costs from customers in the NWMP have confirmed the cost assumptions used by ACIL are representative. This is further supported by the published Feasibility study by Copper Mount Mining Co (CMMC) for its Eva Project (May 2020) page21-27 which indicates a cost of $187.70/MWh for the current supply (informed by offers of supply) and estimated $98.42/MWh for NEM connected cost when CopperString is completed. (costs are quoted in USD in the feasibility study and have been converted to AUD at the report stated FX rate). The cost differential is a 48% reduction which is higher than the assumed 40% reduction used in the Resource analysis.
- ACIL stated in their report that MLF studies were not available at the time and an MLF of 1.0 was assumed based on a high level estimate. Subsequent MLF analysis has shown that the forecast MLF for loads connected in NWQ will be in the range 0.93 – 1.03 depending on load demand from NWMP. Connection of generation at Flinders substation (Hughenden) has a significant impact on MLF which may not have been taken into account in the comment. There are currently two proponents in the Hughenden region which have connection applications being advanced with CopperString for a total generation capacity exceeding 2000MW.

Submission 21

Issue: *(21.07) Modeling*

Date: *11-02-2021*

Submitter: *APA Power Holdings*

Comment: There are existing contracts in place until beyond 2025. The assumption of economic savings from 2025 is not correct as charges for both the BAU generation fleet and the new CopperString revenues would need to be summated. The overall impact of these errors would be to materially overstate the "Net efficiency benefits".

Response:

- No public information on existing contracts is available to assess the comment. The impact of an existing relatively short-term contract (or contracts) for electricity supply would only have a material impact on the economic impact if its existence would result in lower production in the NEM-Connected case relative to the BAU case.

Submission 21

Issue: *(21.08) Alternative options*

Date: *11-02-2021*

Submitter: *APA Power Holdings*

Comment: There are obligations in the TOR to understand and consider alternative options. Furthermore, the proponents are proposing that CopperString be a regulated asset where the owners bear no market risk and all costs are passed on to Queensland electricity consumers. In this context, the appropriate economic assessment is the RIT-T which has a robust and proven methodology, is subject to transparency and scrutiny, and protects consumers/customers from inefficient investment in transmission projects. At the outset, no formal need or problem has been stated by the proponents. The following has been extracted from the Draft EIS:
"The Project will provide access to competitively priced electricity through a connector with the capacity to both import and export electricity. This will significantly contribute to the prolonged economic development of the region, by facilitating substantial growth in the resources sector by reducing the cost of mining and minerals processing."

The following has been extracted from the CopperString application for an Electricity Transmission Authority:
"The objective of CopperString is to provide electricity market benefits to the NWMP and stimulate the development of major renewable generation projects along the length of the CopperString transmission line route."

The clear statement of a need for this project would facilitate an improved economic assessment and would be mandatory for the purposes of the RIT-T process. It is a concern that only one option or solution has been presented when there are a number of feasible solutions. It is of further concern that there is a very limited set of sensitivities. Sensitivities should consider:

- smaller increase in energy consumption in the Mount Isa region for the NEM connected case;
- lower gas costs from the late 2020s consistent with credible unconventional supply opportunities; and
- greater penetration of renewable energy in the BAU case.

The Draft EIS does not consider any options other than a pessimistic BAU case. As such, it does not consider alternative solutions which reduce costs and reduce emissions. Credible alternative options which have not been studied include:

- timing of construction to coincide with the end of the economic life of existing infrastructure and adding more renewable generation to the isolated grid;
- increased renewables penetration in the Mount Isa region; and
- cheaper Northern Territory (e.g. Beetaloo) gas being available to the Mount Isa market.

By avoiding the normal framework which applies to regulated and contestable investments, there is a real risk that the project is not the best solution. It is not a true contestable investment because the direct users are bearing the costs but it is not being tested under the usual mechanisms for regulated investments which protect customers against inefficient investment.

Response:

- Alternatives for the NWMP are limited to local generation options which –
- lock in the current high cost structure based on gas/diesel generation, smaller unit sizes with higher unit capex and lower efficiency
- Are based on bilateral contracting with no market structure to drive economic, competitive supply (currently only one supplier), adding significant complexity and risk that can only be borne by a customer
- Renewable energy development has not progressed despite the abundant resource. A flat demand profile, high cost of firming with no market structure, technical issues with high penetration of renewables in an isolated grid are issues impacting.
- One alternate project has proposed (with information in the public domain) 400 MW of supply based off 400 MW solar farm+600 MW windfarm and gas fired firming. No project cost information was provided but indicatively the capital cost of such a development would be in excess of $1.7 billion, assuming existing gas fired generation could be used for firming the renewable generation. Overcoming technical issues of intermittency and stability when supplying to large industrial 24x7 loads would likely increase the capital cost of such a project. A project of this type would reduce the carbon intensity of supply to NWMP, but with the high capital cost and operating cost for firming, the delivered electricity price is unlikely to be lower than current. Very long term agreements would be required to underpin the investment and these have been difficult to achieve on the isolated system.

- NEM connection through CopperString increases the opportunity for development of generation opportunities in the NWMP, any new generation can be at a larger scale (e.g., wind, solar, solar-thermal, gas) provided it can compete with other generation sources in the NEM. This market mechanism ensures new generation investment is efficient and in the best interest of customers.
- ACIL Allen chose the least cost BAU case. Other prospective projects such as the Vast solar project could have been included - but that would increase the cost in the BAU and overstate the benefits in their view.
- The cost of gas has been assessed according to ACIL Allen's gas market model combined with knowledge on factors that contribute to longer term contract offers for consumers in the Mount Isa Region.
- ACIL Allen has not run a sensitivity with lower gas prices. Indicatively, a reduction in gas cost of $1/GJ will reduce the cost of gas fired generation in Mt Isa in the BAU case by about $7.20/MWh. But gas fired generation represents about 70-80% of total generation in the Mt Isa region (the remainder is liquid fuel, and we conservatively assume development of some solar in the BAU case. For a reduced gas-price the average electricity price impact in the region would be about $5.50/MWh. However, lower gas prices will also reduce the wholesale prices in the current Qld region of the NEM since gas plant tend to set prices during the evening peak. In the NEM it is the less efficient gas plant that tend to set the price in the evening peak, and their costs would decrease by about $10/MWh. Assuming these plants are influencing the price outcome in the NEM for 3-4 hours per day (during the evening peak) then the NEM wholesale price reduction might be about $1.70/MWh. Hence for a $1/GJ gas cost reduction, the net differential in energy costs between the BAU and NEM connected case for Mt Isa might reduce by about $3.80/MWh ($5.50 – $1.70).
- ACIL Allen has done a Gas Market Update in March 2021 of the broader gas market and how that is likely to impact Mount Isa gas supply costs. The update takes account of market developments and Covid impacts on the broader gas market. There has been a slight reduction in the forecast gas price in the short term but the trend for medium and long term prices is largely unchanged.
- The gas market remains inherently volatile, noting the ECGM prices in Victoria have experienced peaks of over $30/GJ in recent weeks (to 12 July 2021).
- Gas commodity and gas transport procurement is complex for a buyer, particularly a small buyer such as a mid-tier or small mining company in the NWMP. Efficiently managing this high value procurement and contract management task is a significant drag on resources and a lack of expertise increases the risk associated with such procurement.

Submission 21

Issue: *(21.09) Potential impacts*

Date: *11-02-2021*

Submitter: *APA Power Holdings*

Comment: According to ACIL, CopperString is expected to result in an average increase of $1.30/MWh in wholesale costs to all Queensland consumers until 2030. Insufficient information is provided to understand how that changes across the five year period, but the figures/charts indicate that it varies over time.

The current electricity consumption in Queensland is approximately 50,000 GWh/year2 (53,000 GWh/year with CopperString using ACIL's consumption estimate) so this implies a cost increase of $68.9 million per year.

In addition to this, ACIL/KPMG report that the PTRM shows a revenue requirement of $127 million per year (nominal), which equates to an average cost of $2.40/MWh when distributed over 53,000 GWh/year. Combined with the $1.30/MWh increase calculated by ACIL, this is a total average increase of $3.70/MWh.

Using a typical Queensland household consumption range of between 3.4 and 9.7 MWh/year3, this adds between $12.58 and $35.89 per year to the average household cost.

The potential impacts on large commercial and industrial users have not been assessed and could be significant in the context of business viability, with the cost of energy for major users continuing to attract significant attention.

Given this significant increase in costs to ordinary Queenslanders and Queensland commercial and industrial users, it is not clear who the primary beneficiaries are (i.e. current or future energy users in the North West Power System, or the private developers of CopperString). The Draft EIS does not transparently assess the benefits and impacts from an economic perspective.

There is a well understood industry standard process for determining the economic benefit of an investment in electricity transmission assets, being the RIT-T. The RIT-T is designed to provide an objective and transparent assessment of electricity transmission assets. Adoption of the RIT-T methodology would provide a robust and transparent result that would be readily accepted by stakeholders.

Response:

- As per previous responses to other questions in submission 21

Submission 21

Issue: *(21.10) Government policy*

Date: *11-02-2021*

Submitter: *APA Power Holdings*

Comment: The CopperString project (CopperString) is not consistent with policy for the following reasons:

- it is not consistent with best practice for transmission infrastructure investment as set out in the National Electricity (Queensland) Law (NEL) and the National Electricity Rules (NER) including the Regulatory Investment Test – Transmission (RIT-T).
- CopperString is proposing the link will be a regulated investment under which the owner bears no market risk and costs are passed on to customers. It is unclear why Powerlink as the entity providing regulated transmission services, and responsible for transmission planning in Queensland, is not undertaking the project. If this were the case, then the process would be in accordance with the usual regulatory investment tests which ensure customers only pay for projects that have the highest positive net market benefit under a wide range of scenarios to meet a particular need.
- • it is not consistent with the Powering Queensland Plan, the Queensland Climate Transition Strategy and the climate commitment to power Queensland with 50% renewable energy by 2030, on the basis that it will materially increase emissions and prices.

Response:

- In considering the decision to implement the CopperString transmission network, the State is and will continue to make detailed financial and economic assessments including the direct benefits and costs to electricity customers. Importantly, this consideration will include customers in the NWMP that are not currently represented under the NEM framework or of the concern of the AER. An Environmental Impact Statement will have been prepared and subjected to a public consultation process, an Independent Expert will have considered the efficiency of capital costs, the State will have completed a Regulatory Impact Statement process, and the legislation (the Act) required to implement the CopperString transmission network, including the regulated revenue entitlement will have been created by the Parliament.
- The CopperString Project is being developed to join the NWMP power system to the NEM. The AER's RIT-T cannot be applied in practice where the beneficiaries of a transmission investment are not customers of the NEM. Reform of the electricity market in the NWMP is a decision that can't be made via a RIT-T, it is a policy decision based on economic, technical and financial assessments of the Queensland Government (as the ultimate authority for electricity supply infrastructure under the National Electricity Law framework), and other environmental and social policy objectives.
- Economic modelling suggests that CopperString actually helps with the 50% QRET within the NWMP. Without it, the loads in Mt Isa will contribute to be supplied by largely thermal generation, rather than 50% RE.

Submission 21

Issue: *(21.11) Project benefits*

Date: *11-02-2021*

Submitter: *APA Power Holdings*

Comment: A central assumption in the economic assessment appears to be that all mineral production activities will achieve a uniform percentage reduction in energy costs of 40%. This is the key driver of increased mining activity, increased power consumption and the forecast "Change in NWMP mining gross surplus" ($7,812.5 million, undiscounted) which in turn is 50% of the "Total Project Benefits".

The forecast electricity cost savings, being between 4% and 10.4% of operating costs translating to an instantaneous (in one year, 2025) increase in demand from 400 MW to 500 MW, are not credible.

It is not appropriate to apply a blanket percentage saving or cost reduction to every customer. In any event, it is not clear what the reference or starting point in such an analysis is for a new venture. To carry out a serious and rigorous analysis would require a more granular approach which should consider the comparative cost of connection to CopperString versus the alternatives.

Each customer will be materially different as each will face different electricity transmission costs and distribution costs and have specific opportunity costs. Cases in point are the Cannington and Phosphate Hill mines which require extensive dedicated transmission assets and likely would be better off continuing to use their captive generation and more renewables than committing to 40 years of connection charges – some 15-20 years beyond their project mine lives. The overall impact of these errors would be to materially overstate the "Net efficiency benefits".

Response:

- Refer to previous responses
- A detailed analysis based on resource cut-off grades was undertaken by Izmin and Soren. However, given the inherent difficulty in undertaking a granular assessment of the induced mining activity and associated economic benefits, two approaches to the induced benefits were provided in the benefit-cost analysis as well as sensitivities that assumed no induced mining. These scenarios are deemed to provide lower and upper bounds to the potential economic benefits associated with the induced mining activity effect.
- The 40% electricity cost reduction applied to the wholesale cost at node connection points and was assessed as appropriate with most sites achieving greater savings (eg CMMC noted above). The cost of the specific connection costs from the nodes are mine project costs and amortised over the LOM not as "committing to 40 years of connection charges" as indicated by APA. Each mine projects connection costs were assessed individually and these capex costs were added to the total CopperString capex in the economic analysis.
- The NEM provides a "postage stamp" wholesale electricity price available at every transmission connection point if a customer is willing to accept the average price of the NEM. Customers enter into a retail contract for electricity and so that actual price they pay varies on their procurement strategy however the cost base of this price is a single market price and transmission cost at every connection point to the NEM transmission grid. The cost allocation framework of transmission in the NEM also affords customers access to the NEM without any take-or-pay obligation the Shared Network which makes procurement of electricity from the NEM a more attractive option than alternatives because it minimises the capital impost on a customer and hence has no real balance sheet or credit criteria applied to a customer (noting retailers do consider customer credit and may require security for electricity sales however this requirement can be managed by short term purchasing to minimise the burden on the customer).

Submission 21

Issue: *(21.12) Project benefits*

Date: *11-02-2021*

Submitter: *APA Power Holdings*

Comment: ACIL appears to conclude that the construction of CopperString will result in an additional $5.5 billion in benefit from increased renewable generation in Queensland. They also conclude that their model shows CopperString will result in 1000 MW of wind generation in the North West between 2025 and 2030.

It is important to note that the ultimate construction of renewable generation in Queensland will be a function of government policy and demand for energy and will not be affected by CopperString. Any facilitation of renewables by CopperString will be displacing renewables development elsewhere in Queensland, and not creating additional renewables generation in Queensland. These calculations appear to overstate the incremental "Net efficiency benefits" of CopperString.

Response:

ACIL do not suggest that the existence of CopperString results in more renewables energy. They do conclude from their analysis that CopperString opens up opportunity for RE development in the Nth Qld renewables energy hub since it will provide the NQ renewables energy hub with access to the NEM. NEM modelling shows that wind generation from this region will be lower cost and developed and dispatched in preference to other projects due to the high quality of the renewable resource.

Submission 21

Issue: *(21.13) Project benefits*

Date: *11-02-2021*

Submitter: *APA Power Holdings*

Comment: In numerous locations throughout V1 Ch4, reference is made to access to the National Electricity Market (NEM) and competitively priced electricity. Access to the NEM is not in itself necessarily a benefit. The Draft EIS has not forecast a total end user price for electricity in the region. Residential customers now pay exactly the same as customers in Brisbane and Townsville due to government policy so many of these comments are misleading and/or incorrect as they imply savings for these customers. Large customers who have bilateral agreements pay a final cost which includes transmission and distribution charges, a factor which does not seem to be taken into account.

There are numerous references to reliability of supply and improvements in supply reliability. The Draft EIS provides no reliability data of the current generation fleet or of the local Ergon electricity network. Forecasts of expected reliability of the CopperString 2.0 project have not been provided, nor has any empirical evidence to support assertions made about reliability. As the major energy provider in Mount Isa, APA has reviewed its reliability data to verify the claims made in the Draft EIS. For the record, APA can confirm that since 1 July 2014, APA's generation reliability has exceeded its contracted reliability with customers, including:

- average 99.94% for Ergon supply, including 100% reliability since March 2018; and
- average 99.86% for other commercial customers.

On this basis, APA rejects the assertion that the North West Power System does not already have a reliable source of energy.

There are repeated claims that the CopperString 2.0 project will in itself result in the construction of significant renewable energy assets in North Queensland and in particular the Hughenden area. No empirical evidence has been provided to demonstrate that this renewable resource is superior to other resources elsewhere in the NEM. Furthermore, there are no transmission network studies which demonstrate that energy generated in this location could be exported south to the main load centres of the NEM without significant additional augmentation works in the Powerlink network. The Draft EIS has provided inadequate consideration of cases of significant renewable penetration into the Mount Isa island grid system and whether this provides a superior economic outcome. In V1 Ch4 S4.8.1, there is reference to the 'Our North Our Future: White Paper on Developing Northern Australia' and that the white paper identifies that "Conversely wrong infrastructure can waste resources and lock communities into poor outcomes". This White Paper conclusion supports the need to conduct a complete, transparent and accurate assessment of options to supply infrastructure to the region.

Response:

- The residential and small commercial customers which benefit from the State's electricity tariff equalisation policy represent a small portion (~6%) of the load in NWQ. No "benefit" has been

attributed to these customers in the analysis, but it should be noted that the State is a beneficiary as the reduced cost of supply when NEM connected reduces the CSO payment required to fund the differential between the current high cost of supply and the equalized tariff.
- In broad terms, the Queensland economy is better off as a result of infrastructure construction that lowers the cost of delivering electricity to consumers through a more efficient allocation of resources across the economy. The actual impact, as modelled by ACIL, is dependent on who benefits from the reduced cost to supply and how this changes productive output in the economy.
- Note response to previous comments on renewables.

Submission 21

Issue: *(21.14) Modeling*

Date: *11-02-2021*

Submitter: *APA Power Holdings*

Comment: solutions while the larger sites are selected for LNG/pipeline gas-renewable hybrids. Set out below is a sample of relevant projects:

Location	Size and technology
Gruyere Gold Mine, W.A.	49 MW gas, 4.4 MW battery and 13 MWp solar PV
Agnew Gold Mine, W.A.	16 MW gas, 18 MW wind farm, 4 MW solar PV and 13 MW battery
DeGrussa Copper Mine, W.A.	19 MW diesel, 10.6 MW solar PV and 6 MW battery (Note 5.5 year PPA)
Nova Nickel Mine, W.A.	20 MW diesel, 6.7 MW solar PV
Cannington Mine, Qld	35 MW gas, 3 MW solar PV
Pilbara Generation Project and Chichester Hub, W.A.	Pilbara: 150 MW gas, 150 MW solar PV and unspecified battery Chichester: 60 MW solar PV – connected to Newman 178 MW gas and 30 MW battery.

Response:

- Gas prices are not projected to reach $11/GJ until later in the projections period. Therefore, it is not correct to compare current contracted gas costs with projected prices later in our projection period. ACIL projection for contracted gas in Mount Isa in the short term is not too dissimilar to what the ACCC have observed in terms of gas contract offers throughout the east coast gas market. Additionally, ACIL views on longer term drivers (gas supply development and LNG prices) are not dissimilar to what the ACCC and AEMO forecast for the east coast gas market. However, we do acknowledge the recent decline in gas prices (affecting both spot markets and longer term contracts) and have reflected that in our updated projection.
- ACIL assumptions on renewable penetration rates in the NWPS under BAU case were considered to be aspirational as no renewable generation investment has been made in this network to date despite high energy cost from gas fuel. A number of proponents have looked at renewable projects on the NWPS but none have advanced to a project commitment. Recent press by the Vast Solar project has indicated they were attracted to the Mount Isa location as they could achieve a much higher sales price than in the NEM where they state they could not compete.
- See previous responses on renewables

Submission 21

Issue: *(21.15) Legislative requirements*

Date: *11-02-2021*

Submitter: *APA Power Holdings*

Comment: The Draft EIS refers to the CopperString Project being a regulated asset, however, the proposed regulatory arrangements have not been transparently described for review by stakeholders as part of the EIS

process. The Draft EIS includes an extensive review of the relevant legislation, but for reasons which have not been explained, omits any reference to the relevant legislation governing economic regulation being the Electricity – National Scheme (Queensland) Act 1997 (Qld). The Draft EIS makes no attempt to consider this issue.

In this respect there is no mention of the role of or relationship with Powerlink as the Government owned corporation responsible for the operation and development of the electricity transmission network in Queensland. It is unclear why Powerlink as the entity providing regulated transmission services, and responsible for transmission planning in Qld, is not undertaking the project. If this were the case, then it would be assessed in accordance with the usual regulatory investment tests which ensures customers only pay for projects that have the highest positive net market benefit under a wide range of scenarios to meet a particular need.

The project is not considered in the national Integrated System Plan prepared by the Australian Energy Market Operator (AEMO) which seeks to coordinate transmission investment to meet the needs of future generation (particularly renewables) and load.

While the Australian Energy Market Commission (AEMC) has sought to introduce contestability in transmission, this has not been in relation to regulated assets. There is no need for contestability in regulated assets as they are, by definition, economically regulated. The contestability has been introduced in relation to dedicated connection assets and potentially renewable energy zone transmission assets where the costs of those assets are to be primarily borne by the generators.

Even it were appropriate for Copperstring to be a contestable asset, there has in fact been no open tender process or mechanism to consider competing providers or solutions. To that end, the fundamental questions are:

- What need is CopperString addressing?
- Is transmission the best solution for that need?
- If transmission is the best solution, is the CopperString proposal the most competitive?

The CopperString project is contrary to the AEMC's approach to transmission contestability to ensure there is a single point of accountability in each region for transmission system performance. Under the AEMC's Transmission Connection and Planning Arrangement Rules and the recent Dedicated Connection Asset Rule change draft decision, any parts of the shared network which are open to contestable build and ownership still need to be handed over for operation to the Primary Transmission Network Service Provider in the region. In Queensland, this is Powerlink. This again raises the question as to why a regulated network solution is not being progressed by Powerlink.

The economic regulation of the CopperString Project has the potential to materially change the viability of the project. Without an understanding of the proposed economic regulation parameters, the potential benefits and impacts (e.g. increased prices for other Queensland users) are unable to be adequately or transparently assessed.

Response:

- Comment addressed in previous responses to submission 21

Submission 21

Issue: *(21.16) Emissions*

Date: *11-02-2021*

Submitter: *APA Power Holdings*

Comment: The treatment of emissions in the ACIL report is generally confusing with no clear tabulated summary of results and no alignment of modelling periods. This made it difficult to properly analyse the results. There are a number of claims of reduced emissions in one part of the document which are not supported by calculations and/or conclusions in others. For example, Section 10.6 includes the following statement:
"During the operational phase of the Project, a reduction in overall gaseous and particulate emissions associated

with power generation is anticipated, due to the connection opportunities to the North Queensland Clean Energy Hub. The Project may also provide additional connection opportunities for renewable electricity generation projects within the region."

This ignores the assessment set out in V3 App AB S7.2.3 which concludes that the cumulative emissions from power generation in Queensland will increase until 2030. This report further points out in S5.7 that CopperString has an insignificant impact in overall emissions across the NEM – in fact, a reduction of only 0.3% which is well below any error ranges or confidence intervals for modelling work of this type. Policy decisions, namely targeting net zero emissions by 2050, drive the emissions outcomes and not CopperString.

ACIL forecast that CopperString will increase emissions in the period until 2030. The report does not provide a total, but it can be approximated from the charts provided at ~2.0 million tonnes (Mt) CO2-eq for 5 years or ~10 Mt tonnes CO2-eq in total. This is inconsistent with current Queensland government policy to achieve a 50% reduction by 2030.

The analysis goes on to attribute a NEM-wide decrease in emissions from 2020 to 2050 of 6 Mt CO2-eq to CopperString. It is unclear why the period starts at 2020 as CopperString is not due to be operational until 2025. Further, it is logically inconsistent to attribute NEM-wide emissions reductions to CopperString while at the same time an input assumption is the existence of government policy to reduce emissions by way of an EIS. Later, the report presents that there is a reduction in Queensland electricity generation emissions of 7.3 Mt CO2-eq from 2020 to 2050. It is unclear how this reconciles with the previously mentioned 6 Mt CO2-eq for the entire NEM for the same period. Finally, there is a forecast that increased mining will result in an additional 11.2 Mt CO2-eq from mining over the period 2020 to 2050.

In contrast, the existing APA plant in Mount Isa has an emissions intensity of 0.412 tonnes CO2-eq /MWh1 (NGERS 2018/19) or 695,857 kg CO2-eq for 1,686,196 MWh sent out. This is approximately 56% of the Qld NEM intensity. A modest renewable deployment in Mount Isa of 100 MW would reduce this to under 350 kg CO2-eq /MWh and a more aggressive but economically sustainable approach would reduce the carbon intensity by more than 50%. The cost of these deployments is far lower than CopperString while delivering attractive emissions outcomes.

The CopperString project is inconsistent with Qld government policy in relation to the Queensland Climate Transition Strategy and all three key climate commitments, as according to the Draft EIS, it will:

- increase coal fired energy consumption until 2030 and increase emissions above 2005 levels and thus frustrate the goals of:
  - powering Queensland with 50% renewable energy by 2030; and
  - achieving a 30% reduction in emissions below 2005 levels by 2030;
- increase net emissions by 2050 by an overall amount of at least 3.9 million tonnes CO2-eq.

This increase is inconsistent with current Queensland government policy to achieve a 50% reduction by 2030. The analysis presented in the Draft EIS rests on an assumption that an emissions intensity scheme will apply between 2030 and 2050. Therefore it is logically incorrect to attribute any reduction in emissions post 2030 to the CopperString Project.

Response:

Greenhouse gas assessment has been completed in accordance with the Project Terms of Reference. Our greenhouse gas emissions have been updated in line with the current concept design and construction JV estimates of materials.

Submission 21

Issue: *(21.17) Management plans*

Date: *11-02-2021*

Submitter: *APA Power Holdings*

Comment: The requirement to provide a Greenhouse Gas Management Plan and Carbon Dioxide (CO2) abatement plan has not been met. Only a high level summary of the greenhouse gas abatement opportunities and management measures is provided, and defers the development of a Greenhouse Gas Management Plan

and a Carbon Dioxide Abatement Plan to the construction contractor or operation and maintenance service provider.

An inventory of project annual emissions for the life of the project for each relevant greenhouse gas, with total emissions expressed in 'CO2 equivalent' terms for Scope 1 and 2 emissions categories as per the National Greenhouse and Energy Reporting scheme, has been provided.

The calculations supporting this inventory were reviewed and the line losses as a percentage of total energy transmitted appear to have been understated by around two orders of magnitude.

As a result, the greenhouse gas intensity is likely to be closer to 70 t CO2-e per GWh not 0.60t CO2-e per GWh as reported in the Draft EIS.

Response:

In Volume 3, Appendix V Greenhouse Gas Assessment, Table 4-7 the energy transmitted during operation is estimated as 15,768,000 GWh. There is an error in the calculation – the total energy should be 157,680 GWh. The GHG contribution from transmitting energy across the CopperString network is estimated as 0.06 tCO2-e/kWh. This is based on, and would be additive to, the emission factor noted in Table 3-5 which references NGER 2019-2020 Schedule 1, Part 6 for electricity consumption (Queensland) as 0.81 tCO2-e/kWh.

The line loss component of the GHG calculations is an overestimation as it is based on the maximum power flow with no diversity, no consideration of generation connected into the CopperString network or reduction in emission factor from increased penetration of renewables.

The life of the project is referenced as 45 years in some places but 40 years in some calculations.

Submission 21

Issue: *(21.18) General comment*

Date: *11-02-2021*

Submitter: *APA Power Holdings*

Comment: APA submits that the Draft EIS is incomplete, the proponent should be required to provide additional information and modelling, and such information should be made available to stakeholders for review and submission prior to a decision on the CopperString project being made by the Coordinator-General.

Response:

Refer to Volume 4 EIS Supplement Attachment H Additional Information on Economics.

Submission 21

Issue: *(21.19) Consultation process*

Date: *11-02-2021*

Submitter: *APA Power Holdings*

Comment: APA is a key supplier of energy in the Mount Isa region. Neither APA nor any other impacted generators are identified in this section.

Response:

Noted. The CopperString Project will provide infrastructure with the ability to supply power generated by a range of energy generators to new and existing customers. This may include APA, other existing energy suppliers and new renewable suppliers within proximity to the CopperString network entering the market.

Submission 21

Issue: *(21.20) Compliance with TOR*

Date: *11-02-2021*

Submitter: *APA Power Holdings*

Comment: The proponent has not provided environmental, health, safety and community policies in accordance with the TOR item 10.2.

Response:

- Volume 2 Chapter 17 Hazards, Health and Safety
- Volume 2 Chapter 19 Environmental Management
- Volume 4 EIS Supplement Section 5.10 Additional Information Hazards, Health and Safety
- Volume 4 Attachment I Additional Management Plans and Commitments Register

Submission 22 – Email

Issue: *(22.01) Landholder Impacts*

Date: *12-02-2021*

Submitter: *Vale Exploration*

Comment: Vale Australia Galilee Pty Ltd (Vale) is the holder of five tenements within the Galilee Basin comprising Vale's Galilee Project as shown in Appendix 1 to this submission. The CopperString 2.0 proposed corridor (Proposed Corridor) transects one of those tenements, being Exploration Permit for Coal (EPC) 907

On EPC907, Vale has invested over $4,400,000 of reportable expenditure completing exploration activities to successfully identify numerous coal resources, including significant deposits known as Degulla and Pentland, within the underexplored and remote Galilee Basin. EPC 907 represents the northern part of Vale's Galilee Project. Appendix 2 to this submission shows EPC 907 is separated into three blocks with the Proposed Corridor traversing the central and largest block named Lauderdale (which contains the Pentland deposit) (Lauderdale Area).

After a phone meeting with the proponent of the CopperString project, CuString Pty Ltd (Proponent) on 17 November 2020, in which Vale expressed its concerns about the location of the Proposed Corridor within EPC 907, Vale wrote to the Proponent on 1 December 2020 to confirm Vale's concern that the existence of the Proposed Corridor in the current location within the Lauderdale Area would result in the potential sterilisation of the significant coal resource in the area and therefore may prevent commercially developing those resources (which includes not only the Pentland deposit, but also the resource on the neighbouring northern block of EPC907, as they would likely be mined concurrently).

Vale received correspondence from the Proponent on 22 December 2020 in which the Proponent stated that, in summary, it would not be possible to move the location of the Proposed Corridor off EPC 907. Correspondence between Vale and the Proponent is attached as Appendix 3.

Given the importance of the resource within EPC 907 and the detrimental impact that the location of the Proposed Corridor will have to the ability to commercialise that resource, Vale makes these submissions to the Proponent's draft Environmental Impact Statement (EIS) to reiterate its concerns in this regard and seek a realignment of the Proposed Corridor to avoid these impacts.

Response:

Noted. It is not possible to avoid exploration tenements in this area. Tenements are contiguous and often overlap (e.g. EPM overlie EPC tenements). Avoiding one tenement holder shifts impact from that holder onto another (and in this location from one holder onto several holders).

Furthermore, the region in the vicinity of Pentland has a number of significant environmental constraints, including White Mountains National Park, designated MSES, wetlands and flora triggers.

The current alignment avoids these constraints, while minimising the impact to landholders and tenement holders.

CopperString does not consider it is feasible to avoid the submitters tenement. The submitter has not established that the thermal coal deposit is a commercial deposit and can be mined economically. There are a number of reasons for this, including the delays in defining the resource and implementing the forward work program mentioned in the submission. Of greater significance is the shift away from the use of thermal coal in power generation. The market for thermal coal is reducing and this trend is expected to continue overtime.

Should the submitter develop the tenement to the point of mine commencement then the Mining Operations Plan will identify the timeframe for shifting CopperString to manage impacts on the mine and avoid sterilisation of the resource.

CopperString considers a shift of the corridor at this stage to be unnecessary given the maturity of the submitters operations on the exploration tenement.

Submission 22

Issue: *(22.02) Potential Impacts*

Date: *12-02-2021*

Submitter: *Vale Exploration*

Comment: Economics considerations do not include consideration of impacts on EPC 907 (Chapter 16- Section 16.4)

Under the EIS terms of reference, Economic – Objectives, the construction and operation of the project should aim to a) avoid or mitigate adverse economic impacts arising from the project. Although the draft EIS discusses metal and copper mining and exploration in the region, no details on the effect of the Proposed Corridor on the coal exploration and mining industry have been included as appears mandated under Section 12.81 *(a) describe the local and regional economies likely to be impacted by the project and identify the relevant stakeholders*.

Response:

As per 22.01.

Submission 22

Issue: *(22.03) Resource Sterilisation*

Date: *12-02-2021*

Submitter: *Vale Exploration*

Comment: "Recent work by Vale has estimated an In-situ coal resource of 800 million tonnes (Mt) for the Pentland deposit, which forms a crucial part of a total 1,300 Mt of resource on EPC 907, including the 500 Mt identified on the northern block.

As noted above in section 1 of this submission, the location of the Proposed Corridor within EPC 907 will compromise Vale's ability to commercialise that resource. In that regard, Vale understands that the Proposed Corridor is intended to comprise a 120m wide easement, with the powerline requiring a series of 12-square metre concrete footings, potentially to some depth depending on the ground encountered and the requirement for cyclone specifications. Infrastructure of this scale will prevent open cut mining in the area, which is the likely method of mining for the resource (discussed further below).

Based on current thermal coal prices, royalty rates and foreign exchange rates, along with a blue sky forecast for the current resources on EPC907, Vale has estimated a maximum possible royalty to the state to be in the order of $7.9 billion dollars over the life of the project. This shows that indeed the project is of significant economic importance. This economic importance would also be amplified through the provision of jobs during the development, mining, processing and further exploration of the basin."

Response:

Noted.

Submission 22

Issue: *(22.04) Resource Sterilisation*

Date: *12-02-2021*

Submitter: *Vale Exploration*

Comment:

EPC 907 was renewed in 2019 with an approved work program including site access and desktop studies, followed by another drilling program in 2020-2021 to follow-up on previous results. Unfortunately, due to matters relating to COVID-19 related restrictions these plans required amending and Vale was granted a variation to complete site access, evaluation and landholder negotiations in 2021 to allow for additional drilling in 2022.

In its letter of 22 December 2020, the Proponent stated that EPC 907 "is at best, under exploration, and the commercialisation of any resource that may be present is not assured". This fails to appreciate the importance of the recent development of Adani's highly publicised Carmichael Coal mine within the same basin as EPC 907. In that regard, the coal seams on EPC 907 in the Lauderdale Area (including in the area of the Proposed Corridor) are an extension of the recently approved Carmichael coal, which is currently in construction. In the Lauderdale Area, coal seams dip to the south west at a shallow (<5) degree angle. The coal seams subcrop against the Triassic close to the south-western border of the block, except for an area in the eastern apart of the block where a localised syncline has led to a thickening of the coal sequence. The coal appears typical quality for the Galilee Basin, however, there are seams that show very low ash, resulting in higher yields and higher calorific values than the average, representing a high value product.

The increased development in the Galilee Basin serves to provide infrastructure that will benefit the ongoing commercialisation of other deposits in the basin (including within EPC 907) and provides clarity that commercialisation in the basin is probable.

Response:

Noted.

Submission 22

Issue: *(22.05) Resource Sterilisation*

Date: *12-02-2021*

Submitter: *Vale Exploration*

Comment:

"Concerningly, no details on any measures for the management of sterilisation of coal resources could be identified in the draft EIS.

It is noted in correspondence from the Proponent on 22 December that "CopperString Is prepared to work with Vale to minimise the impacts of the Corridor on the Tenement, in good faith, as the Corridor is in the optimal position in CopperString's view having balanced all known constraints. CopperString reiterates that it will not be possible to move the corridor off the Tenement". However, a review of the EIS does not appear to indicate how

any constraints have been balanced to determine this optimal position. Appendix E- Land acquisition protocol 4.11 Overlapping tenure says, “Adjustment of the corridor to avoid sterilisation of a commercial mineral resource will be considered through negotiation with the tenement holder”.

Although during discussions on 17 November 2020 the Proponent noted that underground mining in the Proposed Corridor may be possible, it is more likely the coal resources in this area of EPC 907 would be considered for open cut mining (with underground methods being reserved for selected coal seams only). Accordingly, Vale is very concerned that the existence of the Proposed Corridor in the current location within the Lauderdale Area would result in the potential sterilisation of the significant coal resource in the area and the Proponent has indicated that it cannot move the location of the Proposed Corridor off EPC 907.

In addition to the potential sterilisation of coal resources noted above, Vale is concerned of the potential for the Proposed Corridor to restrict critical infrastructure required to facilitate coal mining, treatment and transport on Vale's Galilee Project. Infrastructure in this remote area to facilitate operations between isolated deposits will be critical to their feasibility especially considering the segregated nature of resources across EPC 907.

Vale is also concerned about the impact of the Proposed Corridor on Vale's short-term operations in the area. For example, impacts to exploration site access and potential restrictions to movement, road closures and detours are matters of concern for Vale. These impacts to Vale are not addressed by the draft EIS."

Response:

As per 22.01

Submission 22

Issue: *(22.06) Corridor Selection*

Submission 22

Submitter: *Vale Exploration*

Comment: Given the nature of the concerns raised above, Vale's primary objective is to ensure that the location of the Proposed Corridor either avoids the area of Vale's EPC 907 entirely, or otherwise avoids the Lauderdale Area so as to ensure that coal sterilisation and impacts to coal mining in that area do not occur. Vale notes that such an objective is consistent with item 12.2 of the terms of reference for the draft EIS.
A review of the coal resources over EPC 907 indicates that there may be an area, approximately 1km north of the Proposed Corridor, where the coal resource is less extensive, and in Vale's initial review represents a more favourable location than is currently proposed, Refer to Appendix 4 to this submission. This area does not appear to contain any conservation areas or endangered regional ecosystems as shown in the Environmentally Sensitive Areas – Mining Activities Map at Appendix 5 to this submission.

Due to the uncertainty around the future of development on EPC 907 as a result of the location of the Proposed Corridor, Vale may be required to re-evaluate its planned exploration strategy and approved work programs prior to additional investment. To the extent that the Proposed Corridor remains planned for an area that will adversely impact coal resources on Vale's Galilee Project, this uncertainty will remain and Vale seeks to expedite a resolution so that Vale can continue to plan its activities on EPC 907 with certainty as to future development.

Vale requests that the concerns raised in this submission be considered by the Coordinator General and addressed by the Proponent in planning the final location of the Proposed Corridor. Vale has requested that the Proponent keep Vale informed as the project develops to enable Vale to continue to evaluate the potential impacts of the Proposed Corridor on Vale's Galilee Project.

Response:

As per 22.01

Submission 23 – Email
Issue: *(23.02) Consultation Process*
Date: *12-02-2021*
Submitter: *Private Submitter*
Comment: There has been no consultation at all between Cu String 2.0 and the Landowners in regard to the Project and the Environmental Impact Statement.
Response: Volume 3 Appendix E Land Acquisition Protocol provided a detailed step by step engagement and negotiation process with landholders. This process is ongoing and continuing. Each individual land holder has a dedicated land agent. The Draft EIS was notified in a newspaper which is circulated within the region. No further information is required.
Submission 23
Issue: *(23.03) Agricultural Land*
Date: *12-02-2021*
Submitter: *Private Submitter*
Comment: The Landowners submit that the proposed corridor selected by Cu String 2.0 will impact upon the Landowners grazing activities and poses a risk of: (i) the release and discharge of hazardous contaminants that will effect human health, the environment, flora and fauna, soils and the Landowner's livestock; and (ii) the introduction of noxious plants and weeds; resulting in irretrievable damage to the environment.
Response: Noted. The Construction JV has developed a Construction EMP and Construction Methodology Management Plan which will address these concerns further to information already provided in the Draft EIS. Refer to Volume 4 Appendix I Additional Management Plans and Commitments Register.
Submission 23
Issue: *(23.04) Soil and Erosion*
Date: *12-02-2021*
Submitter: *Private Submitter*
Comment: The Landowners further submit that the proposed corridor selected by Cu String 2.0 will cause impact to soils within the corridor and adjacent grazing land and any access routes to the proposed corridor on "Liontown Station" resulting in erosion, soil loss, contamination and irretrievable damage to the environment. The construction of the proposed transmission line towers will result in dust generation, compaction of soil and erosion of soils within the proposed corridor, adjacent grazing land and any access routes to the proposed corridor on "Liontown Station".
Response: Noted. This issue has been suitably addressed in Volume 2 Chapter 5 Land. CuString is still engaging with landholders regarding their concerns. No further information is required.
Submission 23
Issue: *(23.05) Habitat Loss*
Date: *12-02-2021*

Submitter: *Private Submitter*

Comment: The Landowners further submit that the proposed corridor selected by Cu String 2.0 will adversely impact four (4) riparian areas within the proposed corridor and adjacent grazing land and other riparian areas within any proposed access routes to the proposed corridor.

The four (4) riparian areas identified with the proposed corridor on "Liontown" are important refuges for flora and fauna. Such refuges are of significance for flora, and fauna. Such riparian areas are important to fauna and migratory bird species movements including breeding and roosting sites.

The impact of the proposed corridor will cause fragmentation of habitats resulting in the reduced size of habitat patches and causing a regional impact on flora and fauna diversity.

The construction of the towers within the proposed corridor, and the construction of creek crossings within the identified riparian areas will impact on flora, fauna and threatened species that presently exist within the proposed corridor, adjacent grazing land and access routes to the proposed corridor and cause irretrievable damage to the environment.

At present there exists on "Liontown Station" within 5 kilometres of the proposed corridor a declared Endangered Regional Ecosystem (Category B).

Response:

Noted. This issue has been suitably addressed in Volume 2 Chapter 7 Flora and Fauna. CuString is still engaging with landholders regarding their concerns. No further information is required.

Submission 23

Issue: *(23.06) Biosecurity*

Date: *12-02-2021*

Submitter: *Private Submitter*

Comment: Biosecurity is of paramount importance to the Landowners grazing activities.

The Landowners submit that the Project will impact on the biosecurity of "Liontown Station".

Transport and vehicular activity and vegetation clearing and the construction of the proposed towers by Cu String 2.0 or their contractors will cause contamination to the soils and grasses in the proposed corridor, adjacent grazing land and any proposed access routes to the proposed corridor resulting in irretrievable damage to the environment.

Any release or discharge of hazardous contaminants within the proposed corridor, adjacent grazing land and any proposed access routes to the proposed corridor also result in irretrievable damage to the environment and the prospect of "Liontown Station" becoming listed on the Contaminated Land Register.

Transport and vehicular activity and vegetation clearing and the construction of the proposed towers by Cu String 2.0 or their contractors will facilitate the introduction of noxious plants, weeds and pests in the proposed corridor, adjacent grazing land and any proposed access routes to the proposed corridor resulting in irretrievable damage to the environment.

Vehicles, plant and equipment will carry invasive pests and animals. Construction camps will attract a host of invasive pests and animals.

In summary the proposed Project will cause an impact to biosecurity on "Liontown Station" through the movement of personnel, vehicles, plant and equipment and materials.

Some of the animal and bird species that will be impacted by the Project activities are:
- Poephila Cinta Cinta - Southern Black Throated Finch (Endangered)
- Denisonia Maculate - Ornamental Snake (Vulnerable)
- Lerista Vittata - Mount Cooper Skink (Vulnerable)
- Neochmia Ruficanda Ruficanda - Star Finch (Endangered)

Response:

Noted. This issue has been suitably addressed in Volume 2 Chapter 8 Biosecurity. CuString is still engaging with landholders regarding their concerns. No further information is required.

Submission 23

Issue: *(23.07) Water Quality Impacts*

Date: *12-02-2021*

Submitter: *Private Submitter*

Comment: The proposed corridor is within the Burdekin River Catchment area and will cross over four (4) watercourses on "Liontown Station".

The Landowners submit that the construction of crossings on the four (4) watercourses within the proposed corridor on "Liontown Station" will contaminate and affect the water quality within the four (4) watercourses located within the proposed corridor. The release and discharge of contaminants into the four (4) watercourses located within the proposed corridor will impact upon water quality and cause irretrievable damage to the environment.

The construction of crossings within the proposed corridor will impact on not only water quality, but altered surface and groundwater flow. The construction on crossings of the watercourses within the proposed corridor and any proposed access routes to the proposed corridor will also result in erosion, and sedimentation

Response:

Noted. This issue has been suitably addressed in Volume 2 Chapter 9 Water Resources. CuString is still engaging with landholders regarding their concerns. No further information is required.

Submission 23

Issue: *(23.08) Groundwater Impacts*

Date: *12-02-2021*

Submitter: *Private Submitter*

Comment: The Landowners submit that groundwater will be affected by the Project. Groundwater is important to the Landowners in respect of both pastoral and domestic purposes. The Project will affect both the quality and flow of groundwater.

Any discharge or release of contaminants and hazardous contaminants within the proposed corridor, adjacent grazing land or any proposed access routes to the proposed corridor or at any other location on "Liontown Station" will cause irretrievable environmental harm and damage to the quality of groundwater on "Liontown Station".

Any discharge or release of contaminants and hazardous contaminants arising from the Project's activities within the proposed corridor, adjacent grazing land or any proposed access routes or at any other location on "Liontown Station" will adversely affect groundwater dependent ecosystems existing within such areas.

Response:

Noted. This issue has been suitably addressed in Volume 2 Chapter 9 Water Resources. CuString is still engaging with landholders regarding their concerns. No further information is required.

Submission 23

Issue: *(23.09) Air Quality*

Date: *12-02-2021*

Submitter: *Private Submitter*

Comment: The Landowner's residence on "Liontown Station" is located approximately 2 kilometres from the centre line of the proposed corridor on "Liontown Station".

The Landowners submit that should the Project proceed then the persons occupying the "Liontown Station" residence will be affected by reduced air quality (dust) arising from the project particularly during any construction phase.

Response:

Noted. This issue has been suitably addressed in Volume 2 Chapter 10 Air and GHG. CuString is still engaging with landholders regarding their concerns. No further information is required.

Submission 23

Issue: *(23.10) Noise and Vibration*

Date: *12-02-2021*

Submitter: *Private Submitter*

Comment: The Landowner's residence on "Liontown Station" is approximately 2 kilometres from the centre line of the proposed corridor on "Liontown Station".

The Landowner's submit that should the Project proceed then the persons occupying the "Liontown Station" residence will be affected by noise and blasting and other vibrations emanating from the Project corridor, particularly during the construction phase.

Moreover, the Landowner's livestock grazing on "Liontown Station" within the vicinity of up to 2,000 metres from the Project corridor will be affected by noise and in particular blasting and vibration activities, helicopter activity and other vibrations arising from the proposed constructions works and thereafter the persistent humming of the 330 kv transmission wires. As such the Landowner's livestock would not graze sufficiently within the vicinity of 2,000 metres from the Project corridor.

Noise and vibrations, particularly drilling and blasting will have an adverse impact on fauna existing in habitats within the proposed corridor, adjacent grazing land and any proposed access routes and will exhibit avoidance behaviour and leave the habitat area.

In addition, the presence of batching plants and laydown areas will have an adverse noise impact on both fauna and the Landowner's livestock.

The noise, vibrations and presence of heavy vehicular and plant and equipment traffic and helicopter activity associated with the Project will have an environmental impact on fauna and an adverse effect on the Landowner's livestock grazing activities.

Response:

Noted. This issue has been suitably addressed in Volume 2 Chapter 11 Noise and Vibration. CuString is still engaging with landholders regarding their concerns. No further information is required.

Submission 23

Issue: *(23.11) Waste Management*

Date: *12-02-2021*

Submitter: *Private Submitter*

Comment: The Landowner's submit that the presence of waste associated with construction of the 330 kv towers within the proposed corridor will have an adverse impact on fauna and the Landowner's livestock and the environment.

Response:

Noted. This issue has been suitably addressed in the Draft EIS within the relevant chapters. CuString is still engaging with landholders regarding their concerns. The Construction JV has developed a Waste and Refuse Disposal Plan (refer Volume 4 Attachment I Additional Management Plans and Commitments Register).

Submission 23

Issue: *(23.12) Hazards and Community Safety*

Date: *12-02-2021*

Submitter: *Private Submitter*

Comment: The presence of live transmission wires within the Project corridor heightens the risk of bushfires on "Liontown Station".

The presence of the Project poses an increased risk of the health and safety of the Landowners.

Response:

Noted. This issue has been suitably addressed in the Draft EIS within the relevant chapters. CuString is still engaging with landholders regarding their concerns.
The Construction JV has developed a Bushfire Management Plan which is included as part of Volume 4 Attachment I Additional Management Plans and Commitments Register

Submission 23

Issue: *(23.13) Social Impacts*

Date: *12-02-2021*

Submitter: *Private Submitter*

Comment: The Project will have an impact on the Landowners including the adverse noise and vibrations, electro-magnetic fields, air quality (dust), water quality and groundwater quality and flow issues.

The Project will also have an impact on the Landowners amenity of life.

Response:

Noted. These issues have been suitably addressed in the Draft EIS within the relevant chapters. CuString is still engaging with landholders regarding their concerns. No further information is required.

Submission 23

Issue: *(23.14) Landholder Impacts*

Date: *12-02-2021*

Submitter: *Private Submitter*

Comment: The existence of the Project will impact on the Landowner's livestock carrying activities and will result in loss of available grazing area in an area of up to 2,000 metres from the Project corridor.

Response:

Noted. This issue has been suitably addressed in Volume 2 Chapter 5 Land. CuString is still engaging with landholders regarding their concerns. No further information is required.

Submission 24 – Email

Issue: *Not Affected by CopperString*

Date: *12-02-2021*

Submitter: *Queensland Health*

Comment: Thank you for your letter dated 16 December 2020, regarding the proposed CopperString project. The Department of Health's Capital and Asset Services Branch has reviewed the project materials including the alignment of the electricity infrastructure and can confirm that there are no Queensland Health assets which will be affected by the proposal. We therefore have no further comment on the proposal.

Response:

Noted, no action required.

Submission 25 – Email

Issue: *(25.01) General Comment*

Date: *15-02-2021*

Submitter: *Commonwealth Department of Agriculture, Water and Environment*

Comment: The structure and sequence of the MNES chapter does not facilitate a concise assessment of the potential impacts of the project on MNES. To assess the impacts of a project on threatened and migratory species, the department requires clear information regarding species occurrence, the total suitable habitat within a clearly defined project footprint, and a clear narrative of how this information was collected and refined.

Response:

Noted. CuString has engaged with DAWE regarding this matter. Volume 4 EIS Supplement Section 4.4 Additional Information MNES and Volume 4 Attachment E Revised Information MNES provides further information.

Submission 25

Issue: *(25.02) Threatened Species*

Date: *15-02-2021*

Submitter: *Commonwealth Department of Agriculture, Water and Environment*

Comment: The department notes the additional information provided regarding the survey effort and methodology undertaken for the EIS. Based on the review of the information provided, the department considers:

that there is enough information to assess the potential presence of relevant listed threatened and migratory species, except for the Carpentarian Grasswren (Amytornis dorotheae), Gouldian Finch (Erythrura gouldiae) and the Eastern Star Finch (Neochmia ruficauda ruficauda).

(section 18.4)

- As the Carpentarian Grasswren (Amytornis dorotheae) is known to occur within the proposed easement and is listed as Endangered, the department considers that further discussion should be included regarding potential impacts to the species. If the proponent does not believe the species will be impacted, justification as to why this is the case should be provided.
- As the Gouldian Finch (Erythrura gouldiae) is known to occur within the proposed easement and is listed as Endangered, the department considers that further discussion should be included regarding potential impacts to the species. If the proponent does not believe the species will be impacted, justification as to why this is the case should be provided.

- - The Eastern Star Finch (Neochmia ruficauda ruficauda) has a large distribution of likely habitat across the proposed easement. Given that the species is listed as endangered, the department is of the position that a more detailed summary of potential impacts should be provided.

Response:

Noted. CuString has engaged with DAWE regarding this matter. Volume 4 EIS Supplement Section 4.4 and Volume 4 Attachment E Revised Information MNES provides additional information in relation to MNES. In addition to the following information in relation to above mentioned species:

Carpentarian Grasswren (*Amytornis dorotheae*) – May occur

The historical distribution of the species extends from Mt Isa at its most southern point, to the northwest into the Gulf of Carpentaria (DAWE, 2021). A predominant population of the species exists in the region north of Mt Isa with the most recent records from 2019 (ALA, 2021). There is a degree of spatial uncertainty due to the species' 'Endangered' status, yet the most southern sightings were recorded near Mt Isa town, suggesting this may be the extent of this species range (with a spatial uncertainty of 10km).

The habitat for the Carpentarian grasswren (*Amytornis dorotheae*) is described as spinifex (Triodia) grasslands and Eucalypt low-open woodlands with Triodia ground layers, particularly scattered across stony areas, siltstone ranges and undulating quartzitic plains that harbour rocky creeklines and/or boulders (DAWE, 2021). The grasswrens build their homes in the centre of dry Triodia clumps, therefore restricting the habitats they can occupy. (Higgins, Peter, & Steele, 2001).

Due to their exclusive use of Triodia, a primary threat to the grasswren is the impact of fires on spinifex grasses, influencing available landscapes they can utilise. Poor fire regimes or increased fire frequency can have detrimental effects on the abundance and distribution of the species. The grasswrens have been recorded to abandon areas of burnt Triodia, unless there are substantial portions of surviving clumps unburnt (Garnett, Szabo, & Dutson, 2011). This species takes approximately 3 to 4 years to recolonise the burnt areas, depending on Triodia growth (Harrington, Perry, Forsyth, & Venables, 2009). Therefore, if any regions show fire scarring within the last 4 years it is unlikely Carpentarian grasswrens will be occupying the area.

The spread of introduced pasture grasses, such as buffel grass (*Cenchrus ciliaris*), may also contribute to more frequent fires that spread across a greater extent of the landscape and burn deeper into rocky refuges (Garnett et al., 2011). In northern Australia, fires fuelled by exotic pasture grasses, such as buffel grass, have been shown to be up to ten times hotter than those fuelled by native grasses in the same region (TSSC, 2016). Buffel grass' characteristics of prolific seed production, opportunistic seed germination, a deep root system and an ability to easily resprout following fire allow the species to form dense monocultures and displace native ground layer species (TSSC, 2016). Fire regime change is often utilised as part of grazing to promote buffel grass over Triodia grasslands and Eucalypt woodlands with Triodia understorey. This is due to buffel grass being palatable to grazing stock, whereas Triodia is avoided by stock as a food resource. Surveys of vegetation completed in January 2021 observed dominant buffel grass understorey between KP 56-60 DM and on subsequent surveys through this area; the observation of fire through these buffel grass areas, highlights the promotion of buffel grass as a land management practice.

The promotion of buffel grass is contributing to increases in the frequency and intensities of fires which are eliminating the mature spinifex clumps that provide critical habitat for the Carpentarian grasswren (Woinarski, 2006). The dominant monoculture patches formed by buffel grass lack the structural features that provide habitat for this species (TSSC, 2016). Forty-three field survey locations across 60km were examined in the western section of the alignment in January and March 2021. Across these locations, 40% (or seventeen locations) had an understorey dominated by buffel grass, 30% (or thirteen locations) had buffel grass as a component of the ground layer, whilst 30% (thirteen locations) were found without buffel grass. It this instance, 70% of locations displayed an occurrence of buffel grass, partially or completely changing the ground layer structural composition. This suggests it is likely that large portions of the potential Carpentarian grasswren habitat is modified by the presence of buffel grass leading to a reduction of suitable nesting opportunity due the suppression of a Triodia ground layer.

The frequency of fire and proliferation of buffel grass within the region suggests that suitable breeding habitat for this species is greatly reduce along the proposed alignment. Several sightings to the north of Mt Isa are

relatively recent, evidence that the population may exists across the wider region. This species may occur along the proposed alignment.

1.0 References

ALA. (2021). Retrieved from Atlas of Living Asutralia: https://spatial.ala.org.au/

DAWE. (2021). Species Profile and Threats Database. Retrieved from Department of Agriculture, Water and the Environment: http://www.environment.gov.au/cgi-bin/sprat/public/publicspecies.pl

Garnett, S., Szabo, J., & Dutson, G. (2011). The Action Plan for Australian Birds 2011. Collingwood, Australia: CSIRO Publishing.

Harrington, G., Perry, J., Forsyth, R., & Venables, B. (2009). A tale of two grasswrens. Wingspan, 19, 23-25.

Higgins, P., Peter, J., & Steele, W. (2001). Handbook of Australian, New Zealand and Antarctic Birds. (Vols. Volume 5: Tyrant- Flycathers to Chats.). Melbourne, Australia: Oxford University Press.

TSSC. (2016). Conservation Advice Amytornis dorotheae Carpentarian grasswren. Canberra: Threatened Species Scientific Committee, Department of the Environment. Retrieved from https://www.environment.gov.au/biodiversity/threatened/species/pubs/558-conservation-advice-05052016.pdf

Woinarski, J. (2006). Living with fire – birds in Northern Australia. In P. W. Olsen, Fire and Birds - Fire Management for Biodiversity (pp. 7-9). Birds Australia. Retrieved from https://www.birdlife.org.au/documents/OTHPUB-FireandBirds.pdf

Gouldian Finch (*Erythrura gouldiae*) – May Occur

The gouldian finch is described as occupying different habitat types in the dry and wet seasons. In the dry season, its habitat consists of unburnt, hollow-bearing smoothbarked gums (Eucalyptus and Corymbia) along rocky hills; whilst in the wet season they migrate down into the wooded lowlands (NRETAS, 2009). Gouldian finches nest in the hollows of gums created by termites, which limits the number of species and abundance of available habitat trees that can be utilised within the project area.

Gouldian finches are granivores, foraging particularly on sorghum and spear grass, and moving to the wooded lowlands in the wet season to forage on a wider variety of available native grass species (Dostine, Johnson, Franklin, Zhang, & Hempel, 2001). However, these wide grassy areas are often subject to fires, one of the main threats to the Gouldian finch. These fires greatly affect the distribution of Gouldian finches, shaping the available areas of grasses as food sources, and current populations. In this instance, grassland habitat is widely distributed along the alignment, however, large tracts of grassland or woodlands are likely unsuitable given the absence or distant proximity to permanent water sources.

Gouldian finches require permanent water, typically building their nests within proximity to these sites (190m average up to 2km) (Pryke, 2011). Dry country and a lack of permanent water sources can drive away populations of Gouldian finches. Oftentimes, the remaining permanent water sources in central Queensland are for livestock, which results in the surrounding habitat and grasslands being both heavily grazed and trampled.

The Gouldian finch occurs in northern Queensland (DAWE, 2021), with the southernmost extent of its distribution encompasses the western portion of the project area, and the eastern side of the project area falling outside the distribution. Several sightings collected from Atlas of Living Australia lie within proximity of the project area, however these records have large amounts of spatial uncertainty (up to 54km) and no listed event dates. These sightings hold less weighting towards Gouldian finch habitat accuracy, yet as the edge of the species distribution covers the western side of the project area, the Gouldian finch may occur in these habitats.

1.0 References

DAWE. (2021). Species Profile and Threats Database. Retrieved from Department of Agriculture, Water and the Environment: http://www.environment.gov.au/cgi-bin/sprat/public/publicspecies.pl

Dostine, P., Johnson, G., Franklin, D., Zhang, Y., & Hempel, C. (2001). Seasonal use of savanna landscapes by the Gouldian finch, Erythrura gouldiae, in the Yinberrie Hills area, Northern Territory. Wildlife Research, 28, 445-458.

NRETAS. (2009). Gouldian Finch Recovery Project. NT Gouldian Finch Recovery Project. Retrieved from http://www.nt.gov.au/nreta/wildlife/programs/gouldian/index.html

Pryke, S. (2011). Ord-East Kimberley Expansion Project – Weaber Plain Development Area: Gouldian Finch Breeding Assessment. Report by Macquarie University and Save the Gouldian Fund.

Eastern/southern star finch (*Neochmia ruficauda ruficauda*) – Unlikely to occur.

The habitat for this species is described as grassland or grassy woodland that are located close to bodies of freshwater. These habitats are dominated by trees that are typically associated with permanent water and may include *Eucalyptus coolibah*, *E. tereticornis*, *Corymbia tessellaris*, *Melaleuca leucadendra*, *E. camaldulensis* and *Casuarina cunninghamii* (DAWE, 2021). Based on this description it suggests this species habitat is strongly associated with riparian areas. This leads to one of the main threats; the riparian habitat this species occupies is highly vulnerable to over-grazing and trampling, particularly during drought.

It has been noted, the Star Finch is primarily granivorous, mostly eating seeds of ripe or half-ripe native grasses, especially sorghum. Foraging occurs mainly in vegetation, typically grasses, rushes and reeds but also shrubs (Holmes, 1998). The presence of a food resource should not be allocated inappropriate weight in assessing likelihood of occurrence given the otherwise unsuitable nature of the habitat. In this instance, grassland habitat is widely distributed along the alignment, however, large tracts of grassland or woodlands are likely unsuitable given the absence or distant proximity to permanent water sources.

The historical distribution of this species stretches from Townsville south to Bundaberg and west to Quilpie (southwest) and east of Cloncurry (northwest) (DAWE, 2021). Information available on the movements of the Star Finch (eastern) is limited, but this species is considered to be sedentary (Garnett & Crowley 2000; Holmes 1998). Recorded observations highlight very few recent occurrences of this species within its' estimated geographic range and Garnett, Szabo, & Dutson, (2011), suggest this sub species is potentially extinct. The most recent observation of a star finch (sub species unknown) was recorded at Winton, 2017, approximately 170km south of the proposed alignment (ALA, 2021). Nearby records (within 10km of the proposed alignment – sub species unknown) at Mt Isa and Cloncurry, are dated from 1990 and 1976 respectively, with both records considered outside of where this species or species habitat is likely or may occur (ALA, 2021; DAWE, 2021). Elsewhere, occurrences (sub species unknown) at the eastern end of the proposed alignment are at a minimum of 60km to the north or south. As a consequence, recorded observations may highlight disjunctive populations, geographically isolated from other individuals or groups, which given the timeframes since the majority of sightings, may suggest this species has already disappeared from these areas due to previous land uses practices which reduce the quality of habitat utilised by this species.

The sedentary nature of this species, the locations of recent recorded occurrences, duration since observation at many locations and the modification of preferred riparian vegetation/habitat through agriculture/grazing suggests this species is unlikely to occur.

References

ALA. (2021). Retrieved from Atlas of Living Asutralia: https://spatial.ala.org.au/

DAWE. (2021). *Species Profile and Threats Database*. Retrieved from Department of Agriculture, Water and the Environment: http://www.environment.gov.au/cgi-bin/sprat/public/sprat.pl

Garnett, S. T., & Crowley, G. M. (2000). *The Action Plan for Australian Birds 2000.* Canberra, ACT: Environment Australia and Birds Australia. Retrieved from http://www.environment.gov.au/biodiversity/threatened/publications/action/birds2000/index.html

Garnett, S. T., Szabo, J. K., & Dutson, G. (2011). *The Action Plan for Australian Birds 2010.* Melbourne: CSIRO Publishing.

Holmes, G. (1998). A review of the distribution, status and ecology of the star finch Neochima ruficauda in Queensland. *Australian Bird Watcher*, 17:278-289.

Submission 25

Issue: *(25.03) Terminology/Typographic Error*

Date: *15-02-2021*

Submitter: *Commonwealth Department of Agriculture, Water and Environment*

Comment: Section 18.4.10 (Pg.185) Numbers of species listed as "may occur" and "unlikely to occur" is not consistent with numbers in total species list.

On page 185 you state that 31 species were identified during the desktop review, however the following table "Listed threatened fauna species predicted to occur or historically recorded in desktop searches" (Pg. 186 – Table number is wrong) only lists 30 species.

Section 18.4.10.3 states in the 2019/2020 surveys, 4 species were confirmed present, 8 were considered likely to occur, 10 may occur and the remaining 13 are unlikely to occur – totaling 35. This total is also not consistent with the abovementioned figures.

A list of the 13 species considered "unlikely to occur" is not provided, however there are not enough species in the table on page 186 to meet the 13 species.

Response:

Noted. The chapter has been reviewed has reviewed and the discrepancy has been amended - Refer to Volume 4 Attachment E Revised Information MNES.

Submission 25

Issue: *(25.04) Survey Effort*

Date: *15-02-2021*

Submitter: *Commonwealth Department of Agriculture, Water and Environment*

Comment: There is not enough information to assess the extent and quality of habitat suitable for relevant species. The department does not have confidence that the "mapped habitat intersected" area amounts listed in table 18-37 (starting Pg. 296) are accurate. The method by which the assessment of suitable habitat impacted for conservation significant species was conducted is not clear and requires refinement. The extent to which the predictive habitat mapping (based on essential habitat factors, RE data, and occurrence records) was refined with ground truthing is not highlighted. Further, a broad range of RE's provided in table 18-22 (starting Pg. 88) that were used for predictive mapping of suitable habitat for MNES.

A clear example of how mapped suitable MNES habitat within project activity areas has been refined based on desktop analysis and ground-truthing would increase confidence in total suitable habitat area.

Response:

The basis of the predicted habitat mapping is existing knowledge derived from Commonwealth Government (SPRAT), Queensland Government species profiles, scientific literature and field observations. Table 18-20 displays a summary of field surveys completed during and in addition to the completion of the Draft EIS, whilst Table 18-21 displays a summary of survey effort including habitat assessment undertaken after the completion of the Draft EIS. As displayed within these tables, an additional 322 vegetation and 295 habitat assessments were completed; post Draft EIS, further refining and ground truthing vegetation and habitat. CopperString has engaged with DAWE on this submission to refine the survey effort that informed potential habitat mapping. Habitat mapping for the night parrot was reevaluated by species experts associated with the night parrot recovery team. Leseberg, Healy and Murphy (2021) assessed the potential for the occurrence of the night parrot and suitable habitat along the alignment (see Volume 4 Attachment F). Additional wet season survey effort was conducted to verify and confirm black throated finch habitat; and mapping was further refined to incorporate permanent water sources (dams, cattle troughs, other farm water sources) which are beneficial to this species during breeding.
The development of a GIS platform incorporating a redesigned project layout provides the ability to accurately develop quantitative values of species habitat intersecting the project. In addition, a visual comparison of landscapes was compiled to provide a photographic record both from an aerial and site-based perspective along each of the five corridor selection segments. This ground truthing was utilised to inform the projects

appreciation of the six general landscape types which occur across the study area as well as improved confidence in the potential conservation significant species habitat mapped for the CopperString EIS 2.0. It has also been used to confirm expected disturbance associated with construction related activities. A detailed quantification of potential species habitat impact areas has been broken down across each project activity. This has been provided in Volume 4 Attachment E Revised MNES Report Table 18-37. In conjunction with the visual comparison of landscapes; LIDAR, incorporating the ground layer and tree canopy height covering the majority of the alignment, was utilised allowing the cross referencing of construction related activities allowing a more precise development of species habitat intersecting specific project activities.

Submission 25

Issue: *(25.05) Vegetation Clearing*

Date: *15-02-2021*

Submitter: *Commonwealth Department of Agriculture, Water and Environment*

Comment: On page 268, the EIS provides percentages for the amount of disturbance expected for each vegetation type within the total project area.

On page 293 the permanent loss of vegetation within each project section is provided as a percentage.

The estimated permanent clearing loss should be framed within the context of threatened and migratory species as done in table 18-37 (starting Pg. 296). General landscape and vegetation types are not relevant to the assessment of impacts to MNES.

Response:

Noted. Clearing loss has now been quantified based on the project footprint within a GIS platform. Landscape types and percentages of vegetation above 3.5m in height have still been considered to give context to the overall clearing loss. Refer to Volume 4 Attachment E Revised Information MNES Tables 18-36 and 18-37.

Submission 25

Issue: *(25.06) Project Configuration*

Date: *15-02-2021*

Submitter: *Commonwealth Department of Agriculture, Water and Environment*

Comment: The department notes that the description of the action has improved significantly over the initial documentation, however significant uncertainty regarding infrastructure placement remains. This affects confidence in the clearance footprint areas provided for project activities (such as transmission tower footing size, access roads, winching sites, etc.). This issue is further reflected in the final disturbance footprints for listed for MNES in table 18-37 (starting Pg. 296). The method by which the total disturbance in easement for each transmission line section (listed in table 18-35. Pg. 293) was calculated is not provided.

A breakdown of project activity footprints that contribute to the “total disturbance in easement” figure provided in table 18-35 would increase the department’s confidence in the proponent’s assessment of potential impacts. This includes, but is not limited to:

- Tower footing size
- Winch and brake areas and size
- Access roads (width 7m but no detailed is locations provided)
- Vegetation thinning

In conjunction with refinement of the available habitat figure mentioned in issue number 25.04, clarification of specific project activity footprints would also contribute to the department’s confidence in the total amount of habitat within project activities listed in Table 18-37.

Based on the tower siting plans on Pg. 294 and in appendix H, areas under the transmission line easement where tree heights are exceeding the vegetation clearance line are known. With this information, the total area of vegetation to be cleared or trimmed should be provided for each of the eight project sections.

Response:

Refer to Volume 4 Attachment E Revised Information MNES Tables 18-36 and 18-37.

Submission 25

Issue: *(25.07) Offsets*

Date: *15-02-2021*

Submitter: *Commonwealth Department of Agriculture, Water and Environment*

Comment: The provided offsets discussion is not sufficient and based on limited confidence in the infrastructure location and habitat impacts. Based on this, avoidance, mitigation and offsets would likely need to address a conservative worst-case scenario.

Section 18.5.3, Pg.305/306

Habitat fragmentation and decreased habitat connectivity is highlighted, however mitigation measures for permanent fragmentation and decreased connectivity are not discussed. Regarding the language used for commitments or actions, the department notes that all commitments must be specific, with measurable outcomes and clear timeframes.

Section 18.6 (Pg. 413)

The department notes that no offsets plan has been provided. In the absence of detailed information, the department would require an offset management plan to address a worst-case scenario. In the event further detail is available, please note that where residual significant impacts are identified, an offsets plan must be provided.

Response:

Noted. A Biodiversity Offset Management Strategy (BOMS) has been developed for any species that residual impacts are considered to be significant (noting that the level of significant residual impacts requiring offset has yet to be finalised with the government agencies). Refer to Volume 4 EIS Supplement Section 4.13. Three EPBC listed species have been identified which include the Black Throated Finch, Koala, and Squatter Pigeon and BOMS has identified several potential offset areas/properties that have the required habitat to offset impacts to these species. All other impacts to conservation significant species are not considered significant. Potential impacts to essential habitat and watercourse vegetation are also discussed in the BOMS.

Submission 26 – Email

Issue: *Climate Council's Submission to the EIS process*

Date: *16-02-2021*

Submitter: *Climate Council of Australia*

Comment: Please find attached Climate Council's submission to the EIS process for the CopperString 2.0 process; along with supporting document - Leaders & Legends: Thousands of clean jobs for Queenslanders. Please don't hesitate to contact me if you require any further information.

Response:

Noted

Submission 27 – Email

Issue: *(27.02) Transport Impact Assessment*

Date: *09-02-2021*

Submitter: *Department of Transport and Main Roads*

Comment: The draft Environmental Impact Statement (EIS) indicates that numerous additional investigations need to, and will, be undertaken to determine and then mitigate the project's impacts on the State transport network (e.g. Table 4-14 and Table 13-15).

These various required actions illustrate that the draft EIS (including TIA) does not currently identify the extent of the project's impacts on the State transport network or necessary mitigation works. Consequently, at this time, TMR cannot assess the project's impact or necessary mitigation works.

TMR understands the Proponent has not yet undertaken these investigations because they are yet to appoint a construction contractor. In response to this limitation, the Proponent has estimated the project's transport impact at a high-level based on available information. While this approach is appreciated, TMR wish to make it clear that it expects the EIS and TIA will need to be updated to fully comply with all the requirements of TMR's Guide to Traffic Impact Assessment in detail as soon as practical. This will be particularly important for identifying any infrastructure upgrades required during construction.

The later the TIA is updated the less likely it is that TMR will be able to adequately assess the project's impacts and proposed mitigation measures and the less likely it will be that the project will undergo a 'streamlined' Ministerial Infrastructure Designation (MID) process as anticipated by the Proponent in the draft Volume 3 Appendix M Infrastructure designation and planning. If the Proponent is still unable to update the Transport Chapter and TIA prior to submitting the post public consultation amended draft EIS to the Coordinator General, TMR will need to discuss options with the OCG.

Irrespective of when the Proponent updates the TIA, TMR will need to assess the draft MID based on the information presented to TMR through each process, noting the Proponent's intention to reuse information prepared for the EIS process for the MID.

Response:

Noted. At this stage CuString is unable to update the draft EIS to comply with the requirements of GTIA.
At this stage, CuString is satisfied with the DTMR recommendations regarding the CGs evaluation report and that impacts of the project on the state transport network will be further assessed during the project's subsequent Ministerial Infrastructure Designation process (appendix to DTMR submission).

Submission 27

Issue: *(27.03) Road Impacts*

Date: *09-02-2021*

Submitter: *Department of Transport and Main Roads*

Comment: Table 4–7 provides a summary of the location where the transmission lines will cross the rail corridor. No such table/summary is provided for where the transmission lines will cross state-controlled roads.

Response:

Noted. An updated summary of road crossings is provided within Volume 4 EIS Supplement Section 4.3.2

Submission 27

Issue: *(27.04) Rail Impacts*

Date: *09-02-2021*

Submitter: *Department of Transport and Main Roads*

Comment: TMR notes that section 4.9 of the TIA indicates that the Proponent will assess the impact of the project on impacted railway level crossings by submitting a Traffic Plan to QR. TMR wishes to reiterate that once the proponent has identified haulage routes and vehicle types for the project, the TIA will need to be updated to assess the impact of project traffic on all impacted railway level crossings. This information should be submitted to TMR, not just QR. Impacted railway level crossings are those on all road links (including local

government) where the development traffic exceeds 5% of the base traffic in either direction on the link's AADT in the year of opening of each stage (construction etc) as per TMR's Guide to Traffic Impact Assessment.

TMR has prepared draft conditions to protect the safety and efficiency of impacted railway level crossings. TMR will recommend similar conditions to the Minister for Planning when reviewing the project through the subsequent Ministerial Infrastructure Designation process. TMR recommends that the final CG's report for the project included the draft conditions in Attachment A as recommended conditions for the subsequent Ministerial Designation process.

Response:

Noted. CuString are continuing to address road and rail network impacts with TMR as further construction planning is completed. At this stage, CuString is satisfied with the TMR recommendations regarding the CGs evaluation report.

Submission 27

Issue: *(27.06) Flooding*

Date: *09-02-2021*

Submitter: *Department of Transport and Main Roads*

Comment: (Chapter 17. section 17.4.15 and Chaper 9, section 9.4.1) TMR acknowledges the EIS indicates that flood analysis is intended to be undertaken at the detailed design stage. As such, it is not clear from the draft EIS exactly how the project will influence stormwater and flooding and the impact this may have on the railway corridor. Therefore, TMR has included a recommended condition in Appendix A to ensure the project does not result in worsening or actionable nuisance to the railway corridor.

Chapter 17 indicates that the project traverses several large catchment areas, major waterways and floodplain. In particular, there is a floodplain between Hughenden and Cloncurry, within the CopperString Core section of the project. The Mount Isa Line which parallels this section, is susceptible to flooding during the summer months.

Section 17.4.15 states that transmission towers will be constructed within flood prone areas however construction is proposed to occur where possible outside the wet season. It is understood that no substations, construction camps or other critical infrastructure is planned in the floodplain. Flood level modelling has not been undertaken during the preparation of the EIS and the EIS indicates that flood analysis is to be undertaken at the detailed design phase.

Further, Chapter 9 indicates that the construction of towers, substations, CEV huts and temporary camps and laydowns may alter existing flood and stormwater behaviours and impact on railway corridors. Despite this, section 9.4.1 indicates that no diversion or interception of overland flow will result from the project.

Response:

Noted. The project infrastructure is not expected to result in changes to existing flood levels. A further desktop flood risk study is being undertaken as part of the detailed design process. This will not be available for the final EIS. CuString are continuing to address road and rail network impacts with TMR as further construction planning is completed. At this stage CuString are satisfied with the TMR recommendations regarding the CGs evaluation report.

Further Submissions on Draft EIS Supplementary Information

This section provides information regarding submissions received since the EIS Vol 4 further updated additional information to the draft EIS was circulated on the 13 October 2021. The additional information was made available to all stakeholders who were submitters on the draft EIS for review and comment. All further submissions have been considered by the proponent. Stakeholders who provided further comments are outlined in Table 1 1.

Table 1 1 Stakeholder submissions received following circulation of draft EIS Vol 4

Sub No.	Date Received	Submitter	Department/Organisation	Submission Format	Date Sent to Proponent
5	18.11.2021	Council	Charters Towers Regional Council	Email	11.11.2021
11	18.11.2021	Agency- State	Department of Resources	Email	10.11.2021
14	18.11.2021	Agency- State	Department of Environment and Science	Email	12.10.2021
15	18.11.2021	Agency- State	Department of Regional Development, Manufacturing and Water	Email	09.11.2021
17	18.11.2021	Agency- State	Department of Agriculture and Fisheries	Email	08.11.2021
21	18.11.2021	Organisation	APA Group	Email	12.11.2021
22	18.11.2021	Organisation	Vale Exploration	Email	09.11.2021
25	18.11.2021	Agency- Commonwealth	Department of Agriculture, Water and the Environment	Email	16.11.2021
27	18.11.2021	Agency- State	Department of Transport and Main Roads	Email	05.11.2021

Table 1 2 Submission comments and responses

Submission 5
Issue: (*5.09) Project description*
Date: 11.11.2021
Submitter: *Charters Towers Regional Council*
Comment: CopperString proposes to use Lot 13 on SP218328 for its Charters Towers Non-resident Workforce Accommodation site and Lot 3 on GF838294 for its Pentland Non-resident Workforce Accommodation site. Council is not supportive of these sites and recommends the use of Lot 5 on SP296521 for Charters Towers and Lot 35 on GF838294 for Pentland respectively, as discussed with Ian Bridge of CopperString 2.0.
Response: Construction camps as described in the EIS will be developed (as needed) by specialist contractors that will build and operate the camps for the required construction period. The contractors will be responsible for ensuring the facilities meet all applicable occupational health and safety requirements, including those relating to food preparation and storage, ablutions and water quality, vector and vermin control and safety and emergency services. All camps will be built to current industry standards and the requirements of local government laws and approval conditions. Engagement with Local Government Areas regarding location of workforce accommodation facilities has been ongoing and preferred locations identified in the SEIS are in accordance with consultation with LGAs. Some of these locations have existing town planning approval and some do not but may have been previously utilised for temporary workers accommodation, other do not. Development approvals for workers accommodation will be obtained as part of individual Ministerial Infrastructure Designation Proposals (MID) aligning with the construction hub areas described in the SEIS. However, where agreed with an LGA and suitable to do so, an application for Material Change of Use (MCU) assessable under a local planning scheme may be an alternative for some workers accommodation sites. The commitments register has been updated (6.1.2) as requested.
Submission 5
Issue: (*5.10) Waste management*

Submission 5

Date: 11.11.2021

Submitter: *Charters Towers Regional Council*

Comment: it is noted in the response to submissions that the Charters Towers waste facility will be used for waste disposal during construction, however, it is unclear as to whether the Pentland waste facility will also be used. Could you please clarify.

Response:
Pentland Landfill Waste Facility is expected to be utilised for waste disposal as it has been confirmed with the LGA that this facility accepts construction and demolition waste.

Submission 5

Issue: *(5.11) General comment*

Date: 11.11.2021

Submitter: *Charter Towers Regional Council*

Comment: To maximise participation from local suppliers and workforce, it is considered that local Councils and Chambers of Commerce should be included in the regional development organisational links.

Response:
Opportunities for integration of the workforce into local communities may be identified through meetings between a representative of the Construction Contractor and the local council and chamber of commerce within the regional community hubs to manage or alleviate any positive or negative interactions between the Project workforces and the community. Meetings will be in accordance with consultation strategies and protocol to engage with regional community hubs and LGA's chamber of commerce for future project development/participation opportunities. The commitments register has been updated (14.4.3.2) as requested.

Submission 5

Issue: *(5.12) General comment*

Date: 11.11.2021

Submitter: *Charters Towers Regional Council*

Comment: More clarity is requested surrounding the 'Meet the Buyer' meetings. Are these meetings going to be in regional community hubs or will they occur externally outside of the regional communities?

Response:
Opportunities for integration of the workforce into local communities may be identified through meetings between a representative of the Construction Contractor and the local council and chamber of commerce within the regional community hubs to manage or alleviate any positive or negative interactions between the Project workforces and the community. Meetings will be in accordance with consultation strategies and protocol to engage with regional community hubs and LGA's chamber of commerce for future project development/participation opportunities. The commitments register has been updated (14.4.3.2) as requested.

Submission 5

Issue: *(5.13) General comment*

Date: 11.11.2021

Submitter: *Charters Towers Regional Council*

Comment: There is lack of clarity on the engagement to be undertaken by the proponent and the local Aboriginal and Torres Straits Islander Organisation and Groups.

Response:
Agreeing and executing a Cultural Heritage Management Plans (CHMP) with each Aboriginal party to identify a clear process for managing Aboriginal cultural heritage, including cultural heritage survey and management processes. Ongoing engagement with local Aboriginal and Torres Strait Islander Organisation and Groups will be in accordance with developed CHMP's. The mitigation measures included within the CHMPs will be comprehensive and entail a number of possible procedures that will include (but not be limited to):

- In the first instance, avoiding Indigenous cultural heritage, wherever practical;
- Carrying out further detailed field investigations;
- Collecting and relocating cultural heritage items, as agreed with the relevant Aboriginal parties
- Inform personnel and contractors of the appropriate measures to adopt in the event of the discovery of an archaeological artefact.

Submission 5

The commitments register has been updated (15.4) as requested.

Submission 11

Issue: *(11.13) MNES*

Date: 10.11.2021

Submitter: *Department of Resources*

Comment: The vegetation management supporting map overlayed with the project footprint indicates the project may impact on regulated vegetation that is an Of concern regional ecosystem. Some of these areas are also associated with watercourses. The relevant areas along the alignment are:

- Between KP620WD and KP630WD
- Near KP720WD
- Several areas between Cloncurry and Phosphate Hill Substation
- Between KP99DM and Mt Isa

Table 18-42 only identifies Regulated vegetation that intersects a watercourse and Regulated vegetation that is essential habitat as being impacted by the project. Regulated vegetation that is an Of concern regional ecosystem is a matter of state environmental significance (MSES) which is not reflected in the table.
In addition, the table only identifies Least concern regional ecosystems as regulated vegetation intersecting a watercourse, however, there are areas where the project footprint does cross Of concern regional ecosystems associated with a watercourse.

Response:

All Of Concern RE's with the potential to be impacted by the project often comprise of minor components of heterogeneous polygons dominated by a least concern RE. Field surveys identified that the project may likely be able to avoid residual impacts to Of Concern RE's hence they were not quantified in the Draft EIS. Pre-clearing vegetation surveys will be undertaken during the detailed design phase to confirm all RE's to be disturbed as part of the project. Notwithstanding, all Of Concern vegetation with the potential to be impacted has been quantified within the response to State Code 16 - PO23.1 as included within amendments to Vol 4 Section 4.4 table 4.10 Response to State Code 16 (see attached). The amount of Of Concern with the potential to be impacted due to “transmission line clearing - line of sight (6m)”, and the “access track construction (6m)”totals 8.54ha.

In addition, Table 18-42 (Attachment E – MNES) has been amended to include all sections of Of Concern REs including Of Concern REs associated with a watercourse and associated with essential habitat. These regulated vegetation categories do overlap in some areas but have been quantified separately within the area calculations. All Least Concern REs in this table have now been amended (due to the inclusion of Of Concern). This information has also been updated in Attachment G Draft BOMS Tables 3-3 and Table 4-2.

Residual impact areas of REs associated with a watercourse and/or essential habitats included the combined “transmission line clearing - line of sight (6m)”, and the “access track construction (6m)”, with a total width of a 12 m. This clearing disturbance will alter the existing environmental values as such it has been identified as a residual impact. All residual impacts within Of Concern vegetation or regulated vegetation within watercourse and/or essential habitats are deemed a significant residual impact. Where these features are intersected by the corridor selection and can't be avoided, the residual impact equates to a total clearing of one fifth (or 20%) of the total 60 m wide corridor selection "Easement” at this location.

Submission 11

Issue: *(11.14) Salinity*

Date: 10.11.2021

Submitter: *Department of Resources*

Comment: PO22 – Salinity
The response to AO22.1 states that clearing for the project will comply because the project does not occur within a salinity expression area. The response also states that further information relative to the presence or absence of salinity expression areas will be provided post EIS during secondary approval process.

Response:
Many soils in the study area are susceptible to varying types of erosion. To mitigate this impact, an erosion and sediment control plan will be developed prior to construction and implemented. These plans will include measure to avoid, manage or mitigate potential risk to soils, including specific reference to management/mitigation of risks associated with salinity, providing evidence of no clearing in salinity expression areas through subsequent development application process (MID). This will be used in conjunction with a vegetation management plan and rehabilitation plan which will include actions suitable to manage or prevent cumulative impacts to the geology and soils.
The commitments register has been updated (6.4) as requested.

Submission 11

Issue: *(11.15) Ecosystems*
Date: 10.11.2021
Submitter: *Department of Resources*
Comment: PO23 – Endangered and of concern regional ecosystems based on the project footprint, the response to the Acceptable Outcomes does not include all areas of clearing that may occur in Of concern regional ecosystems. The relevant areas along the alignment are:

- Between KP620WD and KP630WD
- Near KP720WD
- Several areas between Cloncurry and Phosphate Hill Substation
- Between KP99DM and Mt Isa

Response:
All Of Concern RE's with the potential to be impacted by the project often comprise of minor components of heterogeneous polygons dominated by a least concern RE. Field surveys identified that the project may likely be able to avoid residual impacts to Of Concern RE's hence they were not quantified in the Draft EIS.
Notwithstanding, all Of Concern vegetation with the potential to be impacted has been quantified within the response to State Code 16 - PO23.1 as included within amendments to Vol 4 Section 4.4 table 4.10 Response to State Code 16 (see attached). The amount of Of Concern with the potential to be impacted due to “transmission line clearing - line of sight (6m)”, and the “access track construction (6m)”totals 8.54ha.
Pre-clearing vegetation surveys will be undertaken during the detailed design phase to confirm all RE's to be disturbed as part of the project.
Impacts to RE will be described within individual Ministerial Infrastructure Designation Proposals (MID) aligning with the construction hub areas described in the SEIS.
The MID proposal will clarify where the project corridor selection "easement" crosses an area of confirmed Of concern regional ecosystem, the extent of clearing required and if the clearing is accepted development or exempt pursuant to Schedule 21 Section 10 (a) of the Planning Regulations 2017 .
CuString has already made a commitment to undertake pre-clearing surveys and have identified the MID process as the preferred approval pathway for the project following the EIS assessment.
No new comment is required.

Submission 11

Issue: *(11.16) Essential Habitat*
Date: 10.11.2021
Submitter: *Department of Resources*
Comment: PO24 – Essential habitat
The response indicates that some of the mapped essential habitat areas will not contain values for the recorded species and that further investigations will be undertaken to verify the extent of essential habitat that occurs within the project corridor.
Response:
All areas of mapped essential habitat with the potential to be impacted by the project have been quantified within the response to State Code 16 - PO24 which now includes a breakdown of Of Concern and Least Concern as included within amendments to Vol 4 Section 4.4 table 4.10 Response to State Code 16 (see attached). The amount of mapped essential habitat which may be impacted totals 40.79 ha.
CuString has committed to undertaking pre-clearance surveys during the detailed design phase within known and potential habitat areas of conservation significant species and within significant communities such as Of

Concern REs and Essential Habitat in order to plan infrastructure placement, tower heights, spans and resulting clearing to avoid known occurrences and habitat for conservation significant species.
Impacts to Essential habitat will be described within individual Ministerial Infrastructure Designation Proposals (MID) aligning with the construction hub areas described in the SEIS.
This will include results from pre-clearance surveys undertaken in accordance with the Terrestrial Vertebrate Fauna Survey Guidelines for Queensland with regard to Essential Habitat Mapping.
The MID proposal will clarify where the project corridor selection "easement" crosses an area of mapped Essential Habitat and the extent of clearing required within this area.
CuString has made a commitment to undertake pre-clearing surveys and have identified the MID process as the preferred approval pathway for the project following the EIS assessment.
The commitments register has been updated (7.5) as requested.

Submission 11

Issue: *(11.17) Offsets*
Date: 10.11.2021
Submitter: *Department of Resources*
Comment: As mentioned above, the project footprint indicates clearing in Of concern regional ecosystems may occur as a result of the development. As such offsets may be required to offset any significant residual impact on these regional ecosystems .
Response:
Refer response to issue 11.13.

Submission 11

Issue: *(11.18) Land*
Date: 10.11.2021
Submitter: *Department of Resources*
Comment:
Response:
Noted.

Submission 14

Issue: *(14.12) General comment*
Date: 12.10.2021
Submitter: *Department of Environment and Science*
Comment: DES is not satisfied that the proponent has adequately addressed how they have avoided the environmental impacts, especially relating to selecting an alignment that avoids areas of high environmental value. While alternative alignments were displayed in Volume 3 Appendix D, these have not been revisited to consider changes to destination of the southern spur line.
DES does not believe the proposed project has demonstrated that the chosen alignment “avoids, minimises, mitigates, and offsets” impacts to areas of high environmental value consistent with the Queensland environmental offsets framework.
Response:

- An alternative alignment route from Mt Isa south along the train line to Phosphate Hill has been considered during the corridor selection process. It was not selected as the preferred alignment for a range of reasons including but not limited to the following factors:
- The importance of the 220kv connection to Selwyn and the Selwyn substation to the project and the potential to service other mining activities directly south. The importance of this substation is also demonstrated in the voltage drop down to 132kv from Selwyn to Woodya. Any alternative from Mt Isa south would involve a 220kV line in the order of 140km to Woodya and then a further 61 km to Selwyn (resulting in total 220kV distance of 200km). The current project is 220kV Selwyn (approx. 90km) to then 132kV to Woodya (61km) which is considerably more efficient and economical and results in less voltage loss.
- Train lines and pipelines corridors are developed in a manner which is highly influenced by topography unlike transmission lines. There is a train line and petroleum pipeline which runs between Mt Isa and Phosphate Hill following in large part a similar corridor. The existing infrastructure developed between Mt

Isa and Woody is not highly compatible with transmission lines and the buffer distances would likely result in the transmission line having to deal with either very rugged terrain or fall within large flood plains associated with the Leichhardt River, Leichhardt River (east branch), and Willis Creek.

- In addition a transmission corridor in close proximity to this existing infrastructure would include further design and access agreements that would need to be negotiated with the rail and pipeline entities to ensure no loss or impact on their operations.
- This alternative would introduce addition stakeholders who would be impacted by the project including land owners (who have not been engaged directly regarding the project) as well as additional mining tenure holders. The preferred alignment running south from Cloncurry is supported by the existing property owners who have been aware of the project since 2009-2010.
- An alternative route running down the western side of the Ballara Nature Reserve and back into Selwyn was investigated in Appendix C of the Corridor Selection Report (Vol 3 Appendix D of the Draft EIS) which was demonstrated to be unsuitable for a range of factors.
- Ballara Nature refuge already accommodates a mixture of mining, rural production activities and heavy infrastructure (road, rail, power) seemingly without any significant impact to the value of the area. The CopperString project has very limited earth works to establish towers at distances of greater than 500m apart. The Project will not result in measurable changes to river / creek, groundwater or surface water hydrology or supporting riparian regulated vegetation (key values in the Refuge).

Thereby, the shift away from the preferred alignment which has been in the public realm since 2010 (prior to the creation of the Refuge Agreements), has land owner approval, impacts less stakeholders , has less impacts on existing utilities and infrastructure and is more efficient and economical to service customers is not justifiable or supported.

Submission 14

Issue: *(14.13) MSES*

Date: 12.10.2021

Submitter: *Department of Environment and Science*

Comment: DES has significant concerns around the residual impact assessment for matters of national environmental significance (MNES). The methods to calculate the residual impacts is unclear and has resulted in an unbelievably small portion of mapped habitat intersected by proposed project activities being identified as having a residual impact.

For matters of state environmental significance (MSES) the information provided is contradictory between Table 18-42 of Attachment E and the Biodiversity Offset Management Strategy (BOMS). The BOMS states that no detailed habitat quality assessments for calculating offsets have been undertaken and the offset properties have yet to be finalised. DES is concerned that the quantum of impact has yet to be calculated accurately. This has implications for calculating the quantum of offset area required.

Response:

Residual impact hectare addressed in response to issue 14.17.

Submission 14

Issue: *(14.14) Ballara Nature Refuge – Corridor Selection*

Date: 12.10.2021

Submitter: *Department of Environment and Science*

Comment: DES has asked for further justification of the southern corridor throughout the EIS process. With the Cannington line (eastern line) discontinued, there appears to be less justification for the southern corridor. Without further justification, the proposed project is unable to demonstrate that the southern corridor, and ultimately revocation of the nature refuge, meets the avoid, minimise, offset approach of the Queensland environmental offsets framework (Q offsets framework).

While DES has confirmed that the land to replace the area of revocation is satisfactory, it is not part of the offset required under the Q offsets framework. The proposed replacement land is between the landholder and the State as part of revocation of a nature refuge. An appropriate offset under the Q offsets framework is required for any significant residual impact to a prescribed environmental value.

Page 55 of the Volume 4 EIS Supplement - V2.3 and Table 4-10 on page 60 states that the detailed design has not been completed. Table 18-42 of Attachment E provides a summary of impacts on MSES regulated vegetation.

Response:
Impacts and their designation as non-residual, residual and significant residual are described in Table 18-41. When applied to table 18-42, impacts to MSES regulated vegetation are residual but not significant. Where discussed in Attachment G (page 17) Section 3.6.1 “no significant residual impacts to endangered or of concern REs, MSES fauna, MSES plants and MNES plants are expected”. The sentence following states ' potential significant residual impacts…' could probably be better reworded to say potential residual impacts.

Submission 14

Issue: *(14.15) Environmental management*
Date: 12.10.2021
Submitter: *Department of Environment and Science*
Comment: The proponent will develop an Operational Environment Management Plan which will manage environmental risks relevant to maintenance and operation. This document will be developed during the design phase, so mitigation measures are consistent with final design technical specifications. Risks to soils associated with activities to maintain and repair the transmission line will be managed using similar mitigation measure that are required during construction as described in the Framework EMP. These operational types of risks are isolated, routine and manageable

Response:
Noted.

Submission 14

Issue: *(14.16) Disturbance footprint*
Date: 12.10.2021
Submitter: *Department of Environment and Science*
Comment: DES confirms that the disturbance footprint can be found in Attachment B Tables 2-11 and 2-12. The following tables also included further information on MNES:

- Table 4-10 page 60 includes the 203.96ha of mapped essential habitat intersected by the Project area.
- The Project intersects a number of mapped essential habitat areas (203. 96 ha total).
- Table 4-6 in s4.3 has habitat map intersected by the project.
- Table 4-8 MNES species habitat disturbance
- Table 4-9 SRI by species

Response:
Noted.

Submission 14

Issue: *(14.17) Residual impact / SRI*
Date: 12.10.2021
Submitter: *Department of Environment and Science*
Comment: DES considers that a significant residual impact for the MSES protected wildlife habitat (endangered and vulnerable species) is likely met for two criteria:

1. if the action is likely to reduce the extent of occurrence of the species or
2. cause disruption to ecologically significant locations (breeding, feeding, nesting, migration, or resting sites) of a species.

Response:
The SRI for MSES regarding:

1. if an action is likely to reduce the extent of occurrence of the species closely reflects the Cwth SIA criteria of an action will reduce the area of occupancy of an important population which is covered for all MNES species confirmed present or are likely to occur.
2. cause disruption to ecologically significant locations of a species closely aligns with Cwth SIA criteria - modify, destroy, remove, isolate or decrease the availability or quality of habitat to the extent that the species is likely to decline. Again all MNES species confirmed present or likely to occur have been assessed against the Cwth criteria.

The flow diagram for impact assessment process (page 131/132 of revised MNES information (Volume 4 attachment E) displays the path to identifying significant impacts. This process refines impacts through temporary and permanent activities (as displayed in Species Impact Assessment Tables Volume 4 EIS Supplement Attachment F - Additional Information Flora and Fauna). The results of examining temporary or permanent project activities subsequently determines the outcome is either potential residual impact or no residual impact. Activities found to be a residual impact are then further examined through significant impact criteria to determine if impacts are likely to be a significant impact. In several instances a permanent impact which is residual impact was not deemed as significant based on landscape characteristics when assessed against a species habitat preference. As a result, only 3 species are proposed to significantly impacted by the project. See below response to issue 14.18 for further clarity on the inclusion and exclusion of project activates as significant impacts.

Submission 14

Issue: *(14.18) Residual impact / SRI*

Date: 12.10.2021

Submitter: *Department of Environment and Science*

Comment: The method of determining impacts to habitat area in Appendix E Revised Information for MNES. The method used has determined that the residual impact to MNES listed threatened species is only a fraction of the area of mapped habitat intersected by project activities. Only three species are therefore considered by the EIS to be significantly impacted by the proposed project: the squatter pigeon, koala, and black-throated finch.

It is concerning that the potential offset liabilities for the three identified species (squatter pigeon, koala, and black-throated finch) are in all cases less than 3% of the amount of mapped habitat to be intersected by project activities.

Similar discrepancies occur for the other species identified in Volume 4, EIS Supplement, Table 4-8.

Response:

For several species, i.e., the squatter pigeon, it was felt that the majority of permanent activities were a residual impact (due to the change of a physical attribute (i.e. removal of selective trees be retention of a consistent ground cover and no interruption to connectivity) but not a significant impact. Significant impacts or significant residual impacts in the case of the squatter pigeon were therefore confined to the total removal of habitat for this species, in this instance the construction of CV huts. Hence, 0.5ha rather than 32.7ha. For example, farm tracks (two-wheel ruts) which are likely to reflect easement vehicle access tracks long term, generally contain a strip of grassy vegetation along the centre and it is anticipated the access track after several seasons will reflect a seldom used farm track. Seeding grasses within this vegetated grassy strip are likely to provide suitable foraging opportunities for this species as similar to other grassy ground layer vegetation. Therefore the permanent access track was not considered significant, rather a residual impact based on the small area of suitable foraging habitat being permanently modified and the large areas of suitable foraging habitat remaining adjacent to project activities.

In the case of the koala, the total removal of trees for a CV hut is a significant impact for Koalas; however, the linear of removal of a 12m width (for access track and line of sight clearing) of trees in the low quality habitat / landscape in the region near Charters Towers was not deemed significant for koala due to the sparse density of canopy vegetation, particularly where the current gaps between trees are regularly greater than 20m. In addition, the significance of impact is reduced due to the large amount of potential koala habitat adjacent and the small percentage of this habitat being affected by project activates. Table 4-8 does highlight approx. 83 ha of residual impacts however only 14ha is considered a significant impact.

The same assessment process was utilised for the black throated finch in which habitat was delineated as foraging, seasonal and permanent breeding habitat. In this instance due to many of the project activates being returned to grassland or managed as grassland there is limited removal of actual foraging habitat when compared with the surrounding environment. As a consequence, permanent project activates where vegetation is to be maintained as grassland are a residual impact but not a significant impact to foraging habitat.

Submission 14

Issue: *(14.19) Residual impact / SRI*

Date: 12.10.2021

Submitter: *Department of Environment and Science*

Comment: DES is concerned that the removal of native vegetation due to project activities (such as transmission line clearing and access track clearing) was justified in Attachment F of the additional information as a positive measure for the squatter pigeon.
The proponent states that this species "commonly forages along the sides of roads or along dusty tracks" (Attachment F). DES considers the sighting of squatter pigeon next to roads is likely the result of observational bias in surveys taken from roads. Further, the roads or dusty tracks are unlikely to provide additional food resources, and are considered to be a net loss of habitat. Additionally, there is no assessment of how long the conversion to a grassland habitat may take to provide these resources or whether it would even occur.

Response:
As highlighted in the response to issue 14.18 farm tracks (two-wheel ruts) which are likely to reflect easement vehicle access tracks long term, generally contain a strip of grassy vegetation along the centre and it is anticipated the access track after several seasons will reflect a seldom used farm track. Seeding grasses within this vegetated grassy strip are likely to provide suitable foraging opportunities for this species as similar to other grassy ground layer vegetation. Therefore the permanent access track was not considered significant, rather a residual impact.
It is hard to assess the duration of grassland habitat returning to areas cleared for tracks etc. based on several factors including the prevalence and frequency of fire, stocking rates of domesticated cattle and duration of adverse climatic events (droughts), all of which are not able to be influenced by the Project. However, based on average climatic conditions, it is expected that areas which are slashed, topsoil replaced (retaining seed bank) or direct seeded will provide grassland habitat after the following wet season. The draft EIS Framework environmental management plan (Appendix Q) and Concept rehabilitation plan (Appendix T) detail the rehabilitation objectives and requisites for this project.

Submission 14

Issue: *(14.20) Terminology*
Date: 12.10.2021
Submitter: *Department of Environment and Science*
Comment: There is confusing terminology used within the additional information regarding the extent of impacted habitat. There are no definitions relating to "Total mapped habitat intersected by Project area" and "Total habitat within Project activities" used in Attachment E (Table 18-39). In Table 18-42 another term is used "Total area of mapped habitat intersected by the project activities" and a footnote defines this as the construction footprint.

Response:
All tables within the Volume 4 – EIS Supplementary (Table 4-8 and 4-9) and any other DEIS material such as Attachment E – MNES (Table 18-38, 18-39 and 18-42) and Attachment G – BOMS (Table 3-3), referring to "project activities" and "project area", have been updated and amended. They are now correctly referencing the correlating hectare values.

Submission 14

Issue: *(14.21) Rehabilitation*
Date: 12.10.2021
Submitter: *Department of Environment and Science*
Comment: Access track rehabilitation.
Proponent to confirm that out of 6m disturbance footprint, 3m will be rehabilitated, and whether this will be active rehabilitation or just allowing for regrowth.

Response:
As mentioned in responses to issues above; it is expected that areas, ie. 3m of the 6m disturbance footprint of access tracks, which are slashed, topsoil replaced (retaining seed bank) or direct seeded will provide grassland habitat after the following wet season. The draft EIS Framework environmental management plan (Appendix Q) and Concept rehabilitation plan (Appendix T) detail the rehabilitation objectives and requisites for this project.

Submission 14

Issue: *(14.22) Water Quality*
Date: 12.10.2021
Submitter: *Department of Environment and Science*

Comment: Section 12.37 of the TOR is in reference to water resources and not water quality. Section 7.2 of the TOR states that EIS is to identify and describe the EVs that must be protected. These EVs are specified in s9 of the Environmental Protection Act 1994.
Also, the purpose of WQOs is to plan, construct and operate to protect the EVs of QLD waters. So without knowing what the EVs are for the water that the proposed project will impact, it is not possible to achieve this objective.
The proponent has included the EVs of the main channels that they will cross in Vol 4, Section 4.6, Table 4 10. However, with such a long infrastructure, and the amount of water bodies (82) that it will cross, this statement "Channel characteristics as the proposed crossing locations…." may be over-simplifying the complexity and variety of 'channel characteristics'.
Additionally, the proponent mentions that because most of the waterways remain dry, the EVs are absent from the waterways until they retain water. This statement is incorrect as the ecology of ephemeral streams rely on the dry/wet seasonal cycle and these dry creeks are an important part of these EVs.
The watercourse characteristics in Vol 3 Appendix P Table 3-10 only includes a limited description of the watercourse and does not have any water quality data. As mentioned in the proponent's response, construction and maintenance activities has the potential to increase dust, erosion and runoff risks.

Response:
During the detailed design phase a Water Plan will be developed with consultation of Department of Regional Development, Manufacturing and Water (DRDMW). All sources of taking water, identifying locations where water will be acquired from, amount of water (outlining maximum limits), locations of potential water interference, and any new or modified works that will capture overland flow for construction purposes and associated approvals will be included. Water resource objectives and mitigation controls during the project will be outlined in the Water Plan as well as being in accordance with the Framework EMP.
The commitments register has been updated (9.5) as requested.

Submission 14

Issue: *(14.23) Project approvals*
Date: 12.10.2021
Submitter: *Department of Environment and Science*
Comment: ERA 63 - sewerage treatment plant.
If it is expected that ERA 63 is likely to be triggered, then the impacts from such activities should be included as part of the EIS process where the impacts of the STP can be assessed.

Response:
Waste generation will primarily be mitigated and managed by reducing (avoiding), recycling and reusing. All waste is expected to be transported to external facilities by licensed waste management facilities, these will be determined during the MID process.
The commitments register has been updated (12.5) as requested.

Submission 15

Issue: *(15.12) Water resource impacts*
Date: 09.11.2021
Submitter: *Department of Regional Development, Manufacturing and Water*
Comment: The draft Environmental Impact Statement (EIS) indicates an assessment of available water supply options for construction water has been undertaken. This assessment includes a stocktake of the bores and overland flow sources near the corridor selection. The water demands for the project have been revised and been estimated to be 666,510 kL. As the project crosses several water plans and groundwater management areas, the Department of Regional Development, Manufacturing and Water (DRDMW) recommends the proponent develop a Construction Water Plan which details elements such as sources of proposed water take, associated approvals and landholder agreements.

Response:
A construction Water Plan will be developed during the detailed design phase with consultation of Department of Regional Development, Manufacturing and Water (DRDMW). All sources of taking water, identifying locations where water will be acquired from, amount of water (outlining maximum limits), locations of potential water interference, and any new or modified works that will capture overland flow for construction purposes and associated approvals. Water resource objectives and mitigation controls during the project will be outlined in the Water Plan as well as being in accordance with the Framework EMP.
The commitments register has been updated (9.5) as requested.

Submission 15

Issue: *(15.13) Typo*
Date: 09.11.2021
Submitter: *Department of Regional Development, Manufacturing and Water*
Comment: Where the requirements under the Water Act are discussed, the supplementary EIS material references the Department of Resources as the responsible agency.
Response:
It is noted that corrections include one incorrect reference to department in the Revised information MNES and the multiple in the updated project description. These documents will be corrected to reflect the correct Department.

Submission 17

Issue: *(17.30) Resources*
Date: 08.11.2021
Submitter: *Department of Agriculture and Fisheries*
Comment: Volume 4 Attachment A - Response to submissions:
(S1.1, pgs42-43) With reference to the response to Submission 17 'Issue: (17.09) Resources'.
The Proponent has misunderstood the intention of DAF Forestry's earlier comment of 11/2/2021, which is to alert the Proponent to the necessity of also not interfering with access to state-owned forest products / commercial timber/ quarry material under the Forestry Act. This includes not interfering with access to the earlier referenced Old Richmond Road pit.
Response:
The proponent has committed to preparing a Road Use Management Plan (RUMP) to address the increase of traffic on local roads and highways during construction. This will include but is not limited to details about movements of heavy vehicles, school zone impacts including school bus routes, impacts to access to state-owned forest products / commercial timber/ quarry material, transport of construction workers, and details regarding access to transmission line easements.
The commitments register has been updated (17.5) as requested.

Submission 17

Issue: *(17.31) Waterway barrier works*
Date: 08.11.2021
Submitter: *Department of Agriculture and Fisheries*
Comment: (S2.5.3, pg66) Sentence that states "There are no components of the Project that are defined as waterway barrier works."
Response:
Waterway crossings the Project traverses will be identified as waterway barrier works, and existing access tracks will be utilised wherever possible for access to the Project and when crossing waterways comply with DAF Accepted development requirements for operational work that is constructing or raising waterway barrier works.

Submission 17

Issue: *(17.32) Waterways / fish passage*
Date: 08.11.2021
Submitter: *Department of Agriculture and Fisheries*

Comment: (Woodstock and Dajarra Road substations, Hughenden site office and camp and Charters Towers camp)
Woodstock and Dajarra Road substations and the Hughenden site office and camp and Charters Towers camp, may be located over features that meet the definition of a waterway providing for fish passage. These features are not currently mapped on the Queensland Waterways for Waterway Barrier Works spatial data layer, however the definition of a waterway and defining on ground features takes precedence over the mapping layer.
If these are waterways providing for fish passage, the construction of substations and site offices and camps is unlikely to meet the performance outcomes or purpose statement of State Development and Assessment Provisions (SDAP) State code 18: Constructing or raising waterway barrier works in fish habitats.

Response:
During the project design and preconstruction phase, waterway assessments (in addition to those already undertaken during the EIS Phase) will be undertaken that will capture on ground physical and hydrological fish habitat attributes to confirm whether a particular drainage or waterway feature is a defined waterway that provides for fish passage. Theses assessment will be undertaken we reference to the attributes that define a waterway as described in the DAF factsheet 'what is a waterway' (DAF,2017). A pre-lodgement meeting with DAF to assist in the determination of potential waterway barrier works that might be triggered as part of the project.
The commitments register has been updated (9.5) as requested.

Submission 17

Issue: *(17.33)*
Date: *08.11.2021*
Submitter: *Department of Agriculture and Fisheries*
Comment: (S18.5.2.6, pg328) Sentence that states "No permanent waterway barrier works that will restrict the movement of fish or other aquatic species are likely to be required for the Project."
Response:
Where the project requires crossing works within a DAF waterway and those works cannot meet the ADR a pre-lodgement meeting and development approval will be obtained for waterway barrier works prior to commencement of construction in the waterway. This application will be prepared during the detailed design phase and may be separate to or included within a MID Proposal.
The commitments register has been updated (9.5) as requested.

Submission 17

Issue: *(17.34) Biosecurity Queensland*
Date: *08.11.2021*
Submitter: *Department of Agriculture and Fisheries*
Comment: (S8.2.3, pg5) The Reference to the Queensland Biosecurity Regulation 2016 as the "BS Regulation" is inaccurate as an acronym, distracting and not necessary as it only appears once in the Chapter. (Note: this comment relates to the draft EIS, not the additional information to the draft EIS.)
Response:
Noted.

Submission 17

Issue: *(17.35) Agriculture / Water*
Date: *08.11.2021*
Submitter: *Department of Agriculture and Fisheries*
Comment: Statements are noted in Volume 4 Supplement to the draft Environmental Impact Statement (S4.6, pg67) that refer to the Jacobs Flood Risk Assessment Report (Volume 4 Attachment J Flood Risk Assessment) which is "A desktop high level flood risk assessment …to provide guidance on the evaluation of flood risks expected for the project and recommendations to be considered when flood modelling will be undertaken during the detailed design" and that "Further detailed hydraulic modelling will occur during the detailed design process that will utilise the risk classification from this desktop assessment."
The Jacobs Technical Note Report (Volume 4 Attachment J) Conclusions (S5.1, pg17) include statements:

- The high-level hydraulic analysis identified about 63 major and medium size watercourse crossings and provided indicative flood depths and average flow velocities for each crossing.

- Due to the significant uncertainty around the provided estimate, all river crossings have been classified to fall within the high-risk area, and the areas in between those to be within the low risk area. The current level of study does not permit to identify areas that are at no risk of flooding.
- This report is a high-level flood risk assessment only that can be used to assess the relative risks and safety matrix of powerline towers located within the floodplain areas.

The Jacobs Technical Note Report (Volume 4 Attachment J) refers to Flood Risk Assessment (S3.1, pg9) and states:

- The hydraulic analysis for the river crossings was undertaken to provide an indication of key flood parameters such as peak depth and peak velocity. However, it should be noted that there is significant uncertainty within these estimates, and more detailed hydrological and hydraulic modelling works are recommended for areas where increased accuracy is required.

The Jacobs Technical Note Report (Attachment J) Recommendations for the next stage (S5.2, pg17) include:

- Assess the scour depts (depths) for each tower located within the high flood risk area.
- Assess the flooding impacts of the proposed powerline towers for environmental approvals.

It is noted that both tasks (above) can only be completed when the flood modelling works are commissioned.

Response:
Noted.

Submission 17

Issue: *(17.36) Terminology/typographic error*
Date: *08.11.2021*
Submitter: *Department of Agriculture and Fisheries*
Comment: Guidance as to which waterways in Queensland provide for fish passage is presented in the spatial data layer Queensland waterways for waterway barrier works. However, as per the Guide to determining waterways, this data layer may include mapping anomalies and not all waterways that are present on-ground may be captured by this data layer.
The Proponent should refer to the following factsheets for more information on waterway barrier works:

- What is a waterway?;
- What is a waterway barrier work?;
- What is not a waterway barrier work?

Under the Planning Regulation 2017, works involving constructing or raising waterway barrier works must be undertaken in accordance with the relevant accepted development requirements or under a development approval (assessable development).

Response:
Noted.

Submission 21

Issue: *(21.21) Economic*
Date: *12.11.2021*
Submitter: *APA Power Holdings*
Comment: The information provided in the Supplement does nothing to substantiate previous claims. The economic assessment is not transparent because the input assumptions are not clearly set out. As a result, the Supplement does not provide confidence in the claimed benefits in relation to reductions in energy costs for users in the North West Power System nor transparency as to the potential impacts on other electricity users in Queensland.
The proponents re-state the claims made in the original submission with respect to CGE modelling outputs without any additional supporting logic or information that would allow third party validation. The modelling has not been updated to account for the reduced demand set out in the following section. The Supplement therefore falls short of meeting the Co-ordinator General's requirements by way of a combination of incorrect input assumptions, lack of any new material and lack of additional explanation.

Response:
Noted.

Submission 21

Issue: *(21.22) Economic*
Date: *12.11.2021*
Submitter: *APA Power Holdings*
Comment: The proponents conceded that the CopperString 2.0 project will result in an increase in wholesale electricity costs to all Queensland consumers of $1.30/MWh in the medium term to 2030 which adds a cost burden to average households of $7.55 (Energex) to $8.02 (Ergon) per year in addition to any increase in network costs.
In addition to the increase in wholesale electricity prices, the proponents concede that it will add at least $2.07 and up to $7.63 per year to the cost of all Queensland domestic consumers. The proponents' obfuscation in relation to "the level of financial contribution made by State and Federal governments" and proposed economic regulation make it impossible to validate these costs. APA would expect far more transparency of the cost of service of the project in order for a substantial burden of this nature to be socialised across Queensland energy users.
Notwithstanding these comments, the total impact on domestic customers is an increase in average electricity bills of at least $10.30 (Energex) to $10.09 (Ergon) per year. By comparison, the Australian Energy Market Commission (AEMC) recently rejected a Rule change application that would have increased household consumer power bills by $6 per year (NSW) and $4 per year (South Australia) just for the Project EnergyConnect. Importantly, the AEMC found that consumers should not pay now for benefits in the future.
The proponents have ignored the potential impacts on large commercial and industrial users.
It is clear from the material provided that the proponents intend that the primary beneficiaries are current or future energy users in the North West Power System and the private developers of CopperString. The proponents are expecting that governments will provide some undisclosed capital subsidy and that the annual costs are then recovered from the electricity users of Queensland to cross-subsidise the primary beneficiaries.

Response:
Noted.

Submission 21

Issue: *(21.23) Economic*
Date: *12.11.2021*
Submitter: *APA Power Holdings*
Comment: The claimed reduction in electricity prices is unrealistic for reasons including:

- The overstatement of expected load on CopperString;
- The understatement of outturn prices in Mount Isa from CopperString; and
- The optimistic assumptions in relation to marginal loss factor and NEM electricity prices.

The forecast mining expansion and a twofold increase in electricity consumption as a result of a reduction in wholesale electricity costs is therefore unrealistic.
The latest project information provided by the proponents indicates that approximately 90 MW of the expected load will not be connected, but the demand assumptions have not been updated and the economic modelling has not been re-run for the lower expected demand. As noted above the reduction in expected demand has not been accounted for in the economic modelling.

Response:
Noted.

Submission 21

Issue: *(21.24) Alternatives*
Date: *12.11.2021*
Submitter: *APA Power Holdings*
Comment: The assertion that increased renewables penetration in the Mount Isa region would not occur is demonstrably incorrect. APA has recently announced it has reached final investment decision on the first

stage of an 88 MW solar farm in the region, with proposals for further similar investments under consideration in collaboration with our customers. Taken alone, this is sufficient reason to question the EIS.

The proponents continue to ignore the potential for cheaper Northern Territory (e.g. Beetaloo) gas being available to the Mount Isa market. Any forward market case assessment should factor in alternative energy supplies and has significantly underestimated the benefits of northern gas basins, which means that the expectations of future generation costs in the region are likely to be incorrect.

Response:
Noted.

Submission 21

Issue: *(21.25) Greenhouse Gas*
Date: *12.11.2021*
Submitter: *APA Power Holdings*
Comment:
The proponent's response was silent with respect to APA's observation about increased greenhouse gas emissions. It can only be assumed that the proponents concede that the CopperString Project will result in a significant increase in greenhouse gas emissions until 2030 and beyond. Currently, the North West Power System has an emissions intensity of 56% of the Queensland grid and by 2023 this will fall to further as APA's Mica Creek solar farm enters operation.
CopperString is inconsistent with current Queensland government policy to achieve a 50% reduction in emissions by 2030.

Response:
Noted.

Submission 21

Issue: *(21.26) RIT-T process*
Date: *12.11.2021*
Submitter: *APA Power Holdings*
Comment: The RIT-T is a well-established test that has been used on numerous occasions since it was introduced. The test is designed to cover extensions, expansions and replacement of Electricity Transmission assets. This means that the proponents is mistaken when they state:
"the process of RIT-T would not be able to take into account the benefits that would accrue to customers of the Project who are not currently in accrue to customers of the NEM."
It is the nature of all expansions and extensions to the transmission network subject to the RIT-T that they may be justified in part based on demand from customers not currently in the NEM and on generation capacity that is not yet connected to the NEM. On this point the proponents are wrong. Applying the RIT-T is a simple matter of economic calculations which can factor in new regions.
It is unclear why Powerlink as the entity providing regulated transmission services, and responsible for transmission planning in Qld, is not undertaking the project. If this were the case, then it would be assessed in accordance with the usual regulatory investment tests which ensures customers only pay for projects that have the highest positive net market benefit under a wide range of scenarios to meet a particular need.
Even if it were appropriate for Copperstring to be a contestable asset, there has in fact been no open tender process or mechanism to consider competing providers or solutions. There would be more confidence in socialising costs across the community where solutions are contestable or follow normal regulatory processes, and CopperString does neither. APA notes that other jurisdictions are enhancing contestability in the procurement of electricity transmission infrastructure. APA expects that there are cheaper solutions than CopperString that would address the same need.
To that end, the fundamental questions are:

- What need is CopperString addressing?
- Is transmission the best solution for that need?
- If transmission is the best solution, is the CopperString proposal the most competitive?

Response:
Noted.

Submission 21

Issue: *(21.27) Economic*
Date: *12.11.2021*
Submitter: *APA Power Holdings*

Comment: Unfortunately, the EIS Supplement re-states the results previously presented with respect to CGE modelling outputs without additional supporting information that would allow a third party to validate the analysis.
As previously submitted by APA, this analysis is deficient, in that it relies on incorrect or unsubstantiated assumptions and overstates economic benefits. The following key issues raised previously by APA have not been addressed:

- Failure to include all economic costs (such as the capital costs related to the extension of existing mining operations or the development of new mining operations);
- Overstatement of demand for electricity (which is explained further in this submission); and
- Overstatement of the expected savings in the cost of energy for users in the North West Minerals Province by simple application of a percentage cost reduction to each customer without regard to their individual circumstances.

Attachment H references "updated modelling by ACIL Allen" but neither the updated modelling nor a summary of the outputs was provided, and in any event the proponents conclude "the updated assumptions would produce outputs which are with [SIC] +/-10%, which is within the range of sensitivities reported at the time the EIS was published in December 2020". There is no commentary on how the assumptions have changed since the EIS was submitted in December 2020, notwithstanding changes to previous assumptions such as the expected demand by reason of South 32 withdrawing and the Southern leg of the project being removed (refer to Section 2.2). APA is therefore unable to comment further, and observes that this failure to provide information on the latest economic modelling would not meet the minimum requirements to allow the Coordinator General to assess the EIS.
The EIS Supplement therefore fails to justify the claimed economic benefits, as requested by the Coordinator General.

Response:
Noted.

Submission 21

Issue: *(21.28a) Electricity prices*
Date: *12.11.2021*
Submitter: *APA Power Holdings*
Comment: The information provided in the EIS Supplement regarding network charges is incomplete. The capital cost, operating cost, weighted average cost of capital (WACC), and financial modelling including the maximum allowable revenue (MAR) have not been provided.

Response:
Noted.

Submission 21

Issue: *(21.28b) Electricity prices*
Date: *12.11.2021*
Submitter: *APA Power Holdings*
Comment

- The basis for these calculations is unclear as the cost per customer ($0.50/MWh in Energex's area and $0.36/MWh in Ergon's area) are stated with no explanation as to how these values were derived, and as such they are difficult to interpret and are potentially misleading.
- The impact on network charges set out in Supplement Attachment H and Attachment A are inconsistent and confusing. We note that the proponents think the impact on network charges is somewhere between $2.07 and $7.63 per year for each residential customer. Without further information we assume the range is related to the energy customer's annual consumption measured in MWh.
- The proposed amount of money to be recovered by CopperString in total each year from all customers prior to any government subsidies has not been stated. Given the advanced stage of the project, this is not credible.
- The amount of money to be recovered each year from NEM-connected customers for their share of the network (including as a result of the PLQ locational charges) has not been stated.
- The impact on household bills is inconsistently stated in different parts of the EIS Supplement.
- The total quantum and share of costs to be allocated to NEM-connected customers is a function of the demand for CopperString in the North West. There is no sensitivity analysis or consideration given to the impact of the now lowered demand as a result of the removal of the southern leg of CopperString (refer to Section 2.2 for detail).

- The actual costs are a function of the final costs of the project. In the Draft EIS these appear to have been materially understated both in terms of capital and operating costs.

Response:
Noted.

Submission 21

Issue: *(21.28c) Electricity prices*
Date: *12.11.2021*
Submitter: *APA Power Holdings*
Comment:

- The proponent has confirmed that the CopperString project will add $1.30/MWh to wholesale electricity prices in the short term. As previously observed, this will add material cost for all other electricity users in Queensland, in the short term.
- The chart provided on Page 6 Attachment H is not referenced to any previous analysis and provides no explanation as to the assumptions or methodology which underpin it. The inclusion of "CopperString annualised capital and O&M costs" is not explained and confusing in that it is compared to a non-CopperString NEM wholesale price. It makes no sense that a "Business as Usual" price (which by definition excludes the CopperString annualised capital and O&M costs) is greater than the NEM connected price (including CopperString annualised capital and O&M costs). This implies that customers in Mount Isa would enjoy a payment from CopperString for connecting, presumably in the form a discount funded by Queensland electricity customers and taxpayers.

Response:
Noted.

Submission 21

Issue: *(21.28d) Electricity prices*
Date: *12.11.2021*
Submitter: *APA Power Holdings*
Comment: Conclusions

- The proponents have confirmed that the CopperString project would add to the network charges paid by residential customers up to $7.63 per year. This is comparable to the lower end of APA's assessment. The actual number is sensitive to the actual capital costs of the project and the demand for transmission services in the North West. For the reasons set out in the following submission the demand seems to be overstated which in turn will lead to higher costs being passed through to the remainder of the electricity customers in Queensland. Any growth or overruns in the capital cost of the project will have the same impact.
- The proponents have confirmed that APA's interpretation of their analysis was correct in that electricity prices in Queensland would increase for all users by $1.30/MWh in the period to 2030. Using the proponent's average household energy consumption information the impact per customer is $7.55 (Energex) and $8.02 (Ergon).
- The sum of the increases due to network charges plus electricity prices is $10.30 (Energex) to $10.09 (Ergon) per year. By comparison, the Australian Energy Market Commission (AEMC) recently rejected a Rule change application that would have increased household consumer power bills by $6 per year (NSW) and $4 per year (South Australia) just for the Project EnergyConnect. Importantly, the AEMC found that consumers should not pay now for benefits in the future.
- The proponents have not presented any assessment of the potential cost impacts on large commercial and industrial users.
- Accordingly, APA's observations about the impacts on electricity prices for the rest of Queensland stand.
- APA is concerned that the capital and operating costs of CopperString are materially understated. The capital cost has not been updated since the draft EIS was submitted in December 2020. The proponents have publicly indicated that the project would be shover ready by the end of 2021. APA expects that a more current capital estimate would be available and should have been provided with this supplement.

Response:
Noted.

Submission 21

Issue: *(21.29) Electricity prices*

Date: *12.11.2021*

Submitter: *APA Power Holdings*

Comment: Observations:
MT Isa LWP – NEM: No explanation of the abbreviation "LWP" used in the Page 9 diagram is provided, preventing proper analysis of the diagram. Assuming that this curve represents the NEM wholesale price in Qld when CopperString is connected, it is unclear whether or not this allows for the marginal loss factor (MLF).
Prices (existing): The proponents' claimed current price of $160-$180/MWh is not an accurate reflection of the price at a transmission connection in Mount Isa. A key element in the construction of this price is the assumed cost of gas, which in the Draft EIS, Appendix AB, Page 39 is referenced ACIL as being $83/MWh. This implies that the APA related generation costs are $97/MWh. While APA is not in a position to publicly disclose the costs for generation we can confirm that $97/MWh is materially overstated. APA is willing to meet the Co-ordinator general to provide further information.
Cost sharing arrangements: The implied cost of transmission to Mt Isa customers is $22/MWh (from the diagram on Page 9), but there is no information provided as to the annual transmission volume expected in MWh or the amount of money to be recovered from the Mount Isa customers each year. The final amount will be a function of CopperString's proposed cost sharing arrangements (seemingly two-thirds to Mt Isa customers and one-third to Queensland customers from the Draft EIS), which does not align, in any way, with the distribution of benefits reported (see table 7.7 of Appendix AB to the DRAFT EIS, ACIL's original report).
Costs of CopperString likely to be unrealistic: The $22/MWh cost of transmission to Mount Isa customers is a function of CopperString's estimated capex, opex and the forecast load, the former of which appear unsubstantiated and unrealistically low while the latter appears unrealistically high.
Powerlink charges: The $22/MWh cost of transmission to Mt Isa customers does not include certain costs, for example, additional costs associated with Powerlink providing transmission services to CopperString (and in turn, CopperString's customers) related to the use of Powerlink existing transmission network.

Response:
Noted.

Submission 21

Issue: *(21.30) Project feasibility*

Date: *12.11.2021*

Submitter: *APA Power Holdings*

Comment: Demands: The $22/MWh cost of transmission to Mt Isa customers is based on an assumed demand for services which APA believe is unrealistic. CopperString acknowledge in Attachment H (page 11) that South 32, a cornerstone of the Southern Link, will not connect to the proposed project. In addition, CopperString's latest published design does not include any of the Southern leg customers. This factor alone would reduce the available demand by 22% and therefore increase the costs for customers by 28%. The analysis provided by CopperString has ignored this development.
Anecdotal information on costs: The "offer of supply" for the Eva Feasibility Study referenced by CopperString is irrelevant and outdated having been provided by a supplier no longer operating in the region by reason of their high pricing compared to Diamantina Power Station. APA is aware of lower current offers. In addition, the NEM connected cost quoted (i.e., $98.42/MWh) is not reliable as it was based on CopperString's own marketing materials and therefore cannot be relied on as independent third party confirmation.
Marginal loss factor (MLF): The proponents continue to rely on the assumption that a very large amount of wind generation will be deployed at Hughenden to justify a near-unity MLF in Mount Isa. This is unrealistic given the low likelihood that this wind generation will be constructed prior to 2030 and the considerable distance from Hughenden to Mount Isa. A MLF of between 1.15 and 1.30 is consistent with other similar locations in the NEM, e.g., Broken Hill (pre-renewable deployment).

Response:
Noted.

Submission 21

Issue: *(21.31a) Electrical flow*

Date: *12.11.2021*

Submitter: *APA Power Holdings*

Comment: There is clearly a change in the reference point (from Hughenden to Powerlink's connection point) for this key information. However, no reason has been provided for this change, nor guidance on how the reader should interpret these results relative to the original EIS results (i.e., there is no reconciliation).

- The new 'flow' figure (on page 10) does not appear to align with ACIL's original statement that "ACIL Allen has not assessed intra-regional flows as part of this analysis. However, it is unlikely that these will change substantially since the demand in the Mount Isa region is largely matched by the additional wind farm capacity in the Hughenden region" [emphasis added] – which implies net flow Hughenden to Woodstock (i.e. east of Hughenden) will be relatively low which is consistent with the chart (Figure 5.17) (reproduced above) from the original EIS. It is difficult to reconcile this statement with the new 'flow' figure provided by the proponents, which indicates large (gross and net) amounts of energy flowing into the Queensland region at the Powerlink connection point (particularly after around 2030), which on face value, indicates demand in the Mount Isa region is NOT largely matched by the additional wind farm capacity in the Hughenden region. The implications of this for the Powerlink network are discussed in more detail below.
- Based on our interpretation of the proponent's new 'flow' graph, the flows into Powerlink's network at the Townsville connection point are made up of flows from the Hughenden wind farms PLUS flows from other generators "west of the connection point between CopperString and Powerlink at Woodstock".

Response:
Noted.

Submission 21

Issue: *(21.31b) Electrical flow*

Date: *12.11.2021*

Submitter: *APA Power Holdings*

Comment: If we assume that CopperString are utilising the same information to create this new 'flow' graph as they did to create the original figure, the new 'flow' graph (when combined with the old figure) would appear to indicate that (and using 2050 as an example year):

o roughly 1700GWh is flowing from Hughenden into Powerlink's network (from the original graph, 2050), which means 2100GWh (being the 3800GWh from the new 'flow' graph, less the 1700GWh flowing from Hughenden from the original figure) must be coming from "other generators west of Woodstock". Yet, it is not clear how this outcome could eventuate, given there is no mention of other generation being promoted (beyond the 1000MW of wind in Hughenden), and the likely limited generation capacity still available in Mt Isa by 2050. One alternative is that demand in Mt Isa is now forecast to be much lower in 2050 than what was originally forecast (~2300GWh).

o the ~3800GWh flowing back into Powerlink's network in 2050 aligns with the amount of energy that the stated 1000MW of wind farms that are promoted in Hughenden under the NEM-connected case would produce at a 43% capacity factor1 (i.e., 1000*8760*0.43 = 3,766GWh).

It is not clear whether this is a coincidence, or whether in fact the new flow figure reflects either: (a) ACIL now forecasting very limited demand in the Mt Isa region in this period, which would mean almost all of the energy produced from the wind farms in 2050 serves the QLD region; or whether (b) other local generation in Mt Isa is assumed to serve all of the local load in 2050, therefore freeing up the energy produced from the wind farms to flow into the QLD region which would result in CopperString being very lightly loaded west of Hughenden whereas the original material expects CopperString to be relatively lightly loaded on a net basis east of Hughenden.

Either way, neither appears to align with original documentation that suggests that roughly 1900GWh of net flows from Hughenden to Mt Isa would occur in 2050, serving an expected load of around 2400GWh (see figure below).

Response:
Noted.

Submission 21

Issue: *(21.32) Electrical network*

Date: *12.11.2021*

Submitter: *APA Power Holdings*

Comment: APA notes that potential impacts on the Powerlink network have been identified in Powerlink's latest Transmission Annual Planning Report (TAPR)2 including the potential requirement for upgrades resulting from the CopperString project.

The TAPR contains the following comments:

Section 9.2, page 214: “The relevant resource rich areas include the Bowen, Galilee and Surat Basins and the North West Mineral Province (Mt Isa). There is also the potential conversion of existing mining, industrial and manufacturing from gas and/or diesel to electricity. Together, these loads have the potential to significantly impact the performance of the transmission network supplying these areas, including power transfers reaching the secure limits of the transmission system.”
Section 9.2.4, page 218: “As a result, the Copperstring project could result in additional demand of up to 350MW to be supplied from the transmission network in North Queensland. In addition, there is up to 100MW of demand that is currently not connected to the Mt Isa grid and supplied from standalone power stations that could rapidly connect once Mt Isa is connected to the NEM.
Therefore, the loads in Table 3.1 could result in a coincident increase in northern Queensland demand of up to 930MW but have not reached the required development status to be included in AEMO’s Steady Progress scenario forecast of this TAPR.
Network limitations on the CQ-NQ grid section may occur if a portion of these new loads commit.”
Section 9.3.2, page 222: “In addition, new loads in the resource rich areas of the Bowen Basin, Galilee Basin, North West Mineral Province and Surat Basin has the potential to further significantly increase the utilisation of this grid section. This may lead to significant limitations impacting efficient market outcomes.”
Powerlink notes that there will be costs associated with the network development required to accommodation the connection of CopperString, but that it is too early to plan or cost the appropriate solutions.
Powerlink recognises that network augmentations will most likely be required to connect CopperString. It is noted that these costs should be included in the proponent’s economic assessment.
If the CopperString project was being undertaken by Powerlink then it would have the rigour of the RIT-T process and all costs including those of upgrading the Powerlink network would be properly included.

Response:
Noted.

Submission 21

Issue: *(21.33) Demand analysis*
Date: *12.11.2021*
Submitter: *APA Power Holdings*
Comment: The proponents have provided no analysis of demand supported by any data or numbers, notwithstanding having all of the data available to them. It is therefore difficult to provide any detailed analysis of this element of the EIS Supplement.
South 32 (Cannington Mine) has withdrawn and CopperString has removed Phosphate Hill and Chinvoa from their latest design indicating that they have likely withdrawn too. Using the data above this is a load reduction of 93 MW.
Taking the previous information in the Draft EIS, Attachment AB, figures 5.3 and 5.4 as a basis, it seems that CopperString was to have an initial load of approximately 425 MW. The resulting load reduction is 22%. This would have the impact of increasing the CopperString costs for these customers by 28%.
In addition, APA is aware that a number of existing customers have long term supply contracts. It seems unlikely that these customers would agree to pay twice, being once to comply with their existing contractual obligations and again for CopperString. APA estimates that the associated load would further reduce the load which CopperString can address to less than 40% of the load in CopperString’s assumptions.
The result of this is that costs for electricity delivered to Mount Isa will be significantly higher than forecast by CopperString. As such CopperString’s forecast increases in mining activity (which we regard as optimistic) should be discounted, as should the economic benefits that CopperString is seeking to rely on.

Response:
Noted.

Submission 21

Issue: *(21.34) Alternatives*
Date: *12.11.2021*
Submitter: *APA Power Holdings*
Comment: APA services a number of customers in the region who are rightly focused on securing energy supplies for their businesses and have every right to continue to do so without external interference. There is no market failure in the NWPS and APA observes that customers will price check a range of options before committing to new contracts.
The proponents are wrong to reject alternatives for local generation including renewable generation. APA is aware of numerous competing generation options in the region. APA has recently announced that it is commencing construction of the first stage of an 88 MW solar plant in Mount Isa.

The proponents have stated that the principal benefit of CopperString will be the expansion of mining in the North West. They have also indicated that CopperString expects:

1. to receive some unspecified capital subsidy; and
2. a large portion of its remaining costs (at least one-third) will be recovered from the Queensland Government by way of a subsidy hidden in the electricity charges of Queenslanders.

The proponents offer no assessment of an alternate subsidy or project which would produce a similar mining growth at a lesser cost to the community or produce a more significant growth for the same cost.
Putting it technically, it is an economic assessment that ignores the concept of economic cost in favour of accounting costs.
APA presumes that the proponents have sought to transfer the risk of market demand being realised onto Queensland consumers, most of whom will realise no benefit from the project. It is unclear to APA why Queensland consumers should bear this risk while the proponents earn risk free profits.
APA considers that it would be preferable that the proponents ought bear the risk of their highly optimistic market demand projections, this would reduce the costs to Queensland consumers.

Response:
Noted.

Submission 21

Issue: *(21.35) Sensitivity analysis*
Date: *12.11.2021*
Submitter: *APA Power Holdings*
Comment: The proponents note that the required sensitivity analysis has not been done. The EIS Supplement is deficient in this respect.
The following comments made by the proponents are factually incorrect. All of the load which has been modelled by the proponents is gas-fired and none is fired on diesel. The impact of a $1/GJ reduction in gas cost in the region is $8-$9/MWh as the plant have a range of different efficiencies, a fact which was noted by ACIL Allen but conveniently ignored later.
As previously noted the price assumed by the proponents for gas generation in Mount Isa is overstated.
No consideration has been given to the development of the local gas basins which could conceivably deliver gas to Mount Isa at a cost less than $6/GJ. This would reduce the contribution to price from gas by around $32/MWh.
The proponents continue to ignore the potential for cheaper Northern Territory (e.g. Beetaloo) gas being available to the Mount Isa market. Any forward market case assessment should factor in alternative energy supplies and has significantly underestimated the benefits of northern gas basins, which means that the expectations of future generation costs in the region are likely to be incorrect.

Response:
Noted.

Submission 21

Issue: *(21.36a) RIT-T process*
Date: *12.11.2021*
Submitter: *APA Power Holdings*
Comment: CuString is arguing that it is not required to do a RIT-T based on two points:

- It is not strictly required to do a RIT-T because it is not at this stage a registered TNSP in the NEM.

The RIT-T "would not be able to take into account the benefits that would accrue to customers of the Project who are not currently customers in the NEM".
On the first point:

- This is legal obfuscation. CuString will ultimately be registered as a TNSP and it is seeking for the asset to be a regulated transmission investment under the National Electricity Rules. If it proceeds CopperString will be valued for regulatory purposes under the National Electricity Rules Schedule 6A.2. The Australian Energy Regulator has indicated that it will utilise the same RIT-T approach for all new assets that have been (e.g., Murraylink and Directlink) and will be added to the NEM.
- APA expects that CuString could be registered so as to undertake a RIT-T in accordance with the Rules or there is a process for allowing it to do so during the registration process. APA came across a similar issue on a regulatory conversion matter and believes the AER would be willing to find a solution to maintain the integrity of the Rules process. For example, it would be very surprising if an existing TNSP could simply set up an unregistered company to build regulated infrastructure and then argue it is not required to follow a RIT-T.

On the second point that the process of RIT-T would not be able to take into account the benefits that would accrue to customers of the Project who are not currently customers of the NEM:

- That is not correct. The RIT-T is a well-established test that has been used on numerous occasions since it was introduced on 1 August 2010. The test is designed to cover extensions, expansions and replacement of Electricity Transmission assets.

It is the nature of all expansions and extensions to the transmission network subject to the RIT-T that they may be justified in part based on demand from customers not currently in the NEM and on generation capacity that is not yet connected to the NEM. On this point the Proponents are wrong. That is, it is entirely within the application of the RIT-T to include in the assessment of the market benefits those benefits accruing to the generation and load that will be connected to the NEM as a result of a transmission project. Applying the RIT-T is a simple matter of economic calculations which can factor in new regions.

Response:
Noted.

Submission 21

Issue: *(21.36b) RIT-T process*
Date: *12.11.2021*
Submitter: *APA Power Holdings*
Comment: It is patently incorrect to suggest that ACIL Allen is quite able to calculate economic benefits of CopperString in its EIS submission, but the detailed RIT-T economic test applied to all other transmission developments is somehow unable to do so.
The parameters of the assessment as outlined in National Electricity Rule 5.15A.2 requires the proponent to include an assessment of reasonable scenarios of future supply and demand – this would include supply and demand resulting from the transmission investment under review.
Given that the proponents argue that the benefit of their project is a reduction in the cost of electricity to electricity consumers, then the RIT-T is the logical choice for the assessment as it is the test specifically designed by policy makers, for this type of claim (electricity cost reduction) and for this type of asset (electricity transmission).
CopperString is an extension of the Queensland transmission network proposed by someone other than Powerlink. While the technical challenges of the project are substantial it is not a particularly complex project from a regulatory perspective. It has a single proponent who is proposing a point to point line which connects demand and generation to Powerlink's Transmission Network.
Compared to the recently completed Project Energy Connect which requires work be undertaken by three different TNSPs across two state boundaries and has significant market impacts in three pricing regions, the assessment for CopperString is relatively simple and should be carried out.
The economic assessment conducted for CuString is inconsistent with the approach to the RIT-T as it doesn't assess market benefits in a manner consistent with the RIT-T.

Response:
Noted.

Submission 21

Issue: *(21.37) Greenhouse Gas*
Date: *12.11.2021*
Submitter: *APA Power Holdings*
Comment: Despite the proponent having an estimate for the energy transmitted, they failed to provide an assessment of the greenhouse gas emissions during operation. It is usual industry practice to calculate emissions associated with line losses for reporting purposes and it is unclear why this has not been provided.
The proponent has failed to address APA's submission in relation to the total emissions which is re-set out below for convenience.
ACIL forecast that CopperString will increase emissions in the period until 2030. The report does not provide a total, but it can be approximated from the charts provided at ~2.0 million tonnes (Mt) CO2-eq for 5 years or ~10 Mt tonnes CO2-eq in total. This is inconsistent with current Queensland government policy to achieve a 50% reduction by 2030.
The analysis goes on to attribute a NEM-wide decrease in emissions from 2020 to 2050 of 6 Mt CO2-eq to CopperString. It is unclear why the period starts at 2020 as CopperString is not due to be operational until 2025. Further, it is logically inconsistent to attribute NEM-wide emissions reductions to CopperString while at the same time an input assumption is the existence of government policy to reduce emissions by way of an Emissions Reduction Scheme.

Later, the report presents that there is a reduction in Queensland electricity generation emissions of 7.3 Mt CO2-eq from 2020 to 2050. It is unclear how this reconciles with the previously mentioned 6 Mt CO2-eq for the entire NEM for the same period. Finally, there is a forecast that increased mining will result in an additional 11.2 Mt CO2-eq from mining over the period 2020 to 2050.
In contrast, the existing APA plant in Mount Isa has an emissions intensity of 0.412 tonnes CO2-eq /MWh3 (NGERS 2018/19) or 695,857 kg CO2-eq for 1,686,196 MWh sent out. This is approximately 56% of the Queensland NEM intensity. A modest renewable deployment in Mount Isa of 100 MW would reduce this to under 350 kg CO2-eq /MWh and a more aggressive but economically sustainable approach would reduce the carbon intensity by more than 50%. The cost of these deployments is far lower than CopperString while delivering attractive emissions outcomes.
The CopperString project is inconsistent with Qld government policy in relation to the Queensland Climate Transition Strategy and all three key climate commitments, as according to the Draft EIS, it will:
• increase coal fired energy consumption until 2030 and increase emissions above 2005 levels and thus frustrate the goals of:
  - powering Queensland with 50% renewable energy by 2030; and
  - achieving a 30% reduction in emissions below 2005 levels by 2030;

• increase net emissions by 2050 by an overall amount of at least 3.9 million tonnes CO2-eq.

Response:
Noted.

Submission 22

Issue: *(22.07) Alternative route*
Date: *09.11.2021*
Submitter: *Vale Exploration*
Comment: The Proponent's response to Vale's EIS Submission was inadequate, contained generic statements and failed to take into consideration, or simply acknowledge, Vale's reasonable proposed alternate route for the Project.

Response:
Noted.

Submission 22

Issue: *(22.08) Resources*
Date: *09.11.2021*
Submitter: *Vale Exploration*
Comment: In its submission, Vale highlights the significant impact the Project will have on Vale's Exploration Permit for Coal (EPC) 907 and on future mining operations that would be undertaken based on the resources discovered to date pursuant to the EPC. The location of the proposed corridor of the Project (Proposed Corridor) that overlaps EPC907 will compromise Vale's ability to commercialise the estimated in-situ coal resource of 800 million
tonnes (Mt) for the Pentland deposit, which is estimated to create possible royalty returns to the State in the order of $7.9 billion dollars over the life of a mining project developed from EPC907.
The Proponent suggests that as Vale's tenement is simply an EPC, Vale has not established the coal deposit is commercial and can be mined economically. While Vale acknowledges the tenement is an EPC, as identified in its EIS Submission, Vale has invested over $4,400,000.00
of reportable expenditure completing exploration activities to successfully identify numerous coal resources, including the significant deposits of Pentland (mentioned above) and Degulla. In addition, as identified in its EIS Submission, Vale notes there is increased development in the Galilee Basin which will serve to benefit the ongoing commercialisation of other deposits in the basin (including within EPC907) and provides clarity that commercialisation in the basin is probable.

Response:
Ongoing consultation with Landholders and resource tenement holders will continue through development of the Project. Engagement with resource tenement holders in accordance with land access protocols. This consultation process may include assessment of alternative corridor routes, outcomes of all realignment must be done in accordance with project change request criteria.
The commitments register has been updated (5.2.2) as requested.

Submission 22

Issue: *(22.09) Alternative route*

Date: *09.11.2021*

Submitter: *Vale Exploration*

Comment: While the Proponent states, and Vale appreciates, it is not possible to avoid exploration tenements in the area, the Proponent has failed to consider or acknowledge the proposed alternative put forward by Vale. Vale's proposed alternative, which could be achieved without impacting other exploration tenement holders in the area and will be located on the same parcel of land as the current Proposed Corridor, involves simply moving the area of the Proposed Corridor that overlaps EPC907 by approximately 1km to the north (the Alternative Corridor). A map of this Alternative Corridor is attached as Appendix 4 to Vale's EIS Submission.

Response:

Ongoing consultation with Landholders and resource tenement holders will continue through development of the Project. Engagement with resource tenement holders in accordance with land access protocols. This consultation process may include assessment of alternative corridor routes, outcomes of all realignment must be done in accordance with project change request criteria.
The commitments register has been updated (5.2.2) as requested.

Submission 22

Issue: *(22.10) Alternative route*

Date: *09.11.2021*

Submitter: *Vale Exploration*

Comment:

Based on the significant exploration undertaken to date in the area by Vale, Vale expects that by adopting the Alternative Corridor, the area of the coal deposit that will be sterilized by the Project will be reduced in size by over half, and in turn, the overall impact to Vale will also be reduced.
While Vale appreciates the Proponent's position is that the Project may not be able to avoid Vale's EPC907 entirely, Vale considers the Alternative Corridor to be a reasonable solution to ensure coal sterilisation and impacts to coal mining in the area are minimised. Vale notes that such an objective is consistent with item 12.2 of the terms of reference for the draft EIS.
In its response to Vale, the Proponent states that "Should [Vale] develop the tenement to the point of mine commencement then the Mining Operations Plan will identify the timeframe for shifting CopperString to manage impacts on the mine and avoid sterilisation of the resource".
Accordingly, the Proponent appears to accept that its Project will be required to be moved at some point and Vale considers that it would be preferable to move the alignment now so as to reduce the likelihood of a significant relocation of the infrastructure being required at a later point in time after construction of the Project. Vale's proposed conditions are discussed in section 3 below.

Response:

Noted.

Submission 22

Issue: *(22.11) Alternative route*

Date: *09.11.2021*

Submitter: *Vale Exploration*

Comment: Lastly, Vale also notes that in its AEIS at section 4.1.1 and depicted in Figure 4-2, the Proponent has identified four (4) changes to the position of the Proposed Corridor in response to submissions made by landholders and mining tenure holders. The stated reason for the realignment of the Proposed Corridor over a mining tenement was made in order to reduce potential sterilisation of resources. Vale notes the realignments implemented by the Proponent range from 0.3 km to 2 km from the original alignment and on that basis considers the proposed Alternative Route (requiring a 1km realignment) should not be a significant impact to the Proponent.

Vale submits that the corridor for the Project be adjusted so as to follow Vale's proposed Alternative Corridor within the area of EPC907. The location of this Alternative Corridor is shown as Appendix 4 to Vale's EIS Submission (attached below). In addition, it is noted that even if the Alternative Corridor is adopted, sterilisation of Vale's coal resource will occur, albeit less than the amount that would be sterilised if the Proposed Corridor remains. Accordingly, Vale submits the Proponent be required to consult with and agree adequate compensation with Vale for the sterilisation of its coal resource.

Response:

Ongoing consultation with Landholders and resource tenement holders will continue through development of the Project. Engagement with resource tenement holders in accordance with land access protocols. This consultation process may include assessment of alternative corridor routes, outcomes of all realignment must be done in accordance with project change request criteria.
The commitments register has been updated (5.2.2) as requested.

Submission 22

Issue: *(22.12) Corridor Selection*

Date: *09.11.2021*

Submitter: *Vale Exploration*

Comment: Should the Coordinator General consider it not appropriate for it to determine the Alternative Corridor be adopted by the Proponent as requested at item 3(a) above, Vale submits the Proponent be required to consult further with Vale for the parties to agree on adequate compensation to Vale for the sterilisation of its coal resource.

Response:

Ongoing consultation with Landholders and resource tenement holders will continue through development of the Project. Engagement with resource tenement holders in accordance with land access protocols. This consultation process may include assessment of alternative corridor routes, outcomes of all realignment must be done in accordance with project change request criteria.
The commitments register has been updated (5.2.2) as requested.

Submission 25

Issue: *(25.08) Habitat*

Date: *16.11.2021*

Submitter: *Commonwealth Department of Agriculture, Water and Environment*

Comment: Table 18-38 - Estimated habitat within Project activity areas for conservation significant species:

- It is unclear if the hectares under headings “temporary project activities” and the “permanent project activities” are related and therefore what the total area of impact is.
- Although temporary, where impacts result in the loss of habitat values, these must be considered as part of the overall impacts of the action.
- It is unclear as to how the residual impact hectare amounts (highlighted dark grey) were determined and why the other areas were excluded.
- The “high” “moderate” and “low” species habitat definitions are not consistent with departmental guidelines. It is unclear if the proponent intends to include “high”, “moderate” and “low” species habitat in the offsets calculations or just “high” & “moderate” and how this decision was determined. As these habitat definitions do not align with departmental guidelines it’s recommended to identify of suitable habitat areas in the first instance.

Response:

Residual impact hectare addressed in response to issue 14.17.
Table 18-38 (Attachment E – MNES) has been updated to include a footnote outlining the project footprint (total area of impact). Another footnote has been included to indicate the separation of the habitat into landscape types that refer to the species impact assessment tables (Attachment F – Species Impact Assessment Tables). Therefore, it is defined that the “temporary” and “permanent project activities” are activities that are occurring within the project footprint and therefore, do not total to the “total area of mapped habitat intersected by the project footprint”.
The “high”, “moderate” and “low” habitat definitions are not consistent with the DAWE guidelines due to the guidelines suggesting that a single habitat value should be assigned to the project area, which is not appropriate for a project that spans over 1000 km. Thus, in reference to the DAWE guidelines of the habitat assessment tool criteria, the habitat types have been categorised in accordance with the score of the EPBC habitat assessment values. This method of habitat categorisation has been redefined to appropriately reflect the value of each habitat type across the project. Habitats within the project area vary in quality across the extent of the project ranging between scores of 4 and 8. “High” valued habitats generally scored 8-9, “moderate” valued habitats scored 7-8, “low” valued habitat scored 5-6 and “very low” valued habitats scored 2-4 and in accordance with coastal and inland areas. Coastal areas were scored 5 or more and were considered habitat critical to the survival of the species, while potential habitat further than 5 km from drought refuge in inland areas and further than 1 km from drought refuge in semi-arid inland areas scored less than 5 and were not considered habitat

critical to the survival to the species, or "very low" habitat value. This information is referenced within Table 18-23 and within section 18.5.5.4 – Assessment of Koala habitat value (pg. 396) (Attachment E – MNES).
In reference to the scoring of habitat, it was determined that project activities within areas of "low" and "very low" habitat types would have a lesser impact on the species and therefore would not be considered a residual impact. Therefore, only significant impacts to the habitat types "high" and "moderate" will be considered to contribute to the offset calculations.

Submission 25

Issue: *(25.09) MNES*

Date: *16.11.2021*

Submitter: *Commonwealth Department of Agriculture, Water and Environment*

Comment: Table 18-41 - Summary of significant impacts on MNES communities and species:
-In relation to the 6m access track, the table states "No significant residual impacts during construction, however the permanent access track may in certain instances be considered significant (see below sections)."
See Issue 25.08 in relation to the discussion of temporary or permanent impact.

- The Tower assembly areas, the Brake and winch sites and Construction accommodation camps and laydown areas state there will be "No significant residual impacts". See Issue 25.08 in relation to the discussion of temporary or permanent impact, particularly where clearance occurs in established habitat.

Response:

Residual impact hectare addressed in response to issue 14.17.
Table 18-38 (Attachment E – MNES) has been updated.
Most of the temporary project activities have been considered non-residual impacts due to the idea that they will be rehabilitated after construction. A select few temporary activities, mainly "transmission line clearing (line of sight)" and "access track construction (6m)", are considered residual impacts, as some areas of the impacted habitat within those specific species are hindered from the rehabilitation to grassland from (mainly) woodland habitats. These temporary project activities also have a residual impact amongst watercourse REs and Essential habitat REs. However, other areas impacted by the other temporary project activities such as Brake and winch sites and Tower Assemblies have the potential to become regrowth of the surrounding woodland rather than grassland within those areas due to constant disturbance or maintenance, in particular Brake and winch sites.

Submission 25

Issue: *(25.10) Habitat*

Date: *16.11.2021*

Submitter: *Commonwealth Department of Agriculture, Water and Environment*

Comment: Species presence (please note Koala and squatter pigeon have been used as examples and the comments relate to other species as well):

- The department notes multiple areas within Figures 18-17A, B, C & D (Records and distribution of suitable habitat for the koala within the study area) that are mapped as being "Low" or "very low" suitable habitat, that are also areas where individual species have been spotted/recorded. There seems to be some inconsistency between habitat descriptors and habitat usage.
- Figure 18-18 – (Records and distribution of suitable habitat for the squatter pigeon within the study area) shows a considerably lower amount of confirmed habitat compared to the extensive distribution of species recorded in the area.

Response:

The "High", "Moderate" and "Low" species habitat definitions addressed in response to issue 25.08.
The species predictive habitat mapping criteria is described within Table 18-22 (Attachment E – MNES). The species habitat definitions are characterised by REs and habitat in which the species is predicted to most likely to occur in and the likelihood that the habitat will be utilized by the species. The species habitat mapping is NOT a mapped habitat of exact habitat or whether the species has occurred in these habitats or not, as species may utilize other unpreferred areas.
As mentioned in 25.09, the example of the Squatter Pigeon habitat. This species is assumed to be very distributed within the eastern section of the project. However, it has been noted from the DAWE SPRAT profile, that this species occurs within Land Zone 5 and Land Zone 7 for potential foraging and breeding purposes, and occasionally Land Zone 3 for foraging and drinking along watercourses. This species has been mapped in accordance with its recordings (5 km buffer) within areas of its natural habitats with the exclusion of other land zones which are not recorded as natural or preferred habitats for this species. Therefore, this has made the

mapping smaller and more refined as to having a broad area of habitat of unnatural habitat. This mapping is also evident within all other species as referenced within Table 18-22 (Attachment E – MNES).

Submission 25

Issue: *(25.11) Habitat*

Date: *16.11.2021*

Submitter: *Commonwealth Department of Agriculture, Water and Environment*

Comment: Where trimming of vegetation beneath wires is required, the department would consider these trimming activities to be permanent impact and loss of this vegetation and species habitat.
It is currently not clear if these areas have been included in the total hectares of species habitat that will be impacted.

Response:
The permanent project activity described as "transmission line clearing (above 3.5m) operational (conductor clearance zone)" is in definition the clearance and maintenance of vegetation surrounding the transmission line conductor clearance zone. This is to prevent any collisions between the lines and vegetation to avoid incidents such as fires. The action of "trimming" of vegetation beneath and around the transmission lines fits under this definition.

Submission 25

Issue: *(25.12) Offsets*

Date: *16.11.2021*

Submitter: *Commonwealth Department of Agriculture, Water and Environment*

Comment: Although the draft EIS provides an assessment of the significance of residual impacts, the department still has some outstanding concerns as discussed above. As identified in the Terms of Reference (ToR), where a significant residual impact is likely a complete offsets plan is required as part of the EIS process. Now that the impacts are getting closer to being suitably identified, the department is also keen to see how significant residual impacts will be addressed and offset.

Response:
Noted. We recognise and will update the offset strategy once the significant residual impacts quantities are finalised with relevant government agencies.

Submission 25

Issue: *(25.13) EMP*

Date: *16.11.2021*

Submitter: *Commonwealth Department of Agriculture, Water and Environment*

Comment: The Department notes the Environmental Management Plan (EMP) is yet to be drafted, the department notes that an EMP was requested as part of the ToR.
The department will require a completed EMP to be approved prior to the commencement of any impacts from the proposed action.

Response:
Noted.

Submission 27

Issue: *(27.11) Transport impact*

Date: *05.11.2021*

Submitter: *Department of Transport and Main Roads*

Comment: The department notes the Chapter 13 Transport and the Appendix X Transport Impact Assessment (TIA) have not changed since TMR previously reviewed them in November/December 2020.

Response:
Noted.

Submission 27

Issue: *(27.12) Transport impact assessment*

Date: *05.11.2021*

Submitter: *Department of Transport and Main Roads*

Comment: The draft Environmental Impact Statement (EIS) indicates that numerous additional investigations need to, and will, be undertaken to determine and then mitigate the project's impacts on the State transport network (e.g. Table 4-14 and Table 13-15).
These various required actions illustrate that the draft EIS (including TIA) does not currently identify the extent of the project's impacts on the State transport network or necessary mitigation works. Consequently, at this time, TMR cannot assess the project's impact or necessary mitigation works.
TMR understands the Proponent has not yet undertaken these investigations because they are yet to appoint a construction contractor. In response to this limitation, the Proponent has estimated the project's transport impact at a high-level based on available information. While this approach is appreciated, TMR wish to make it clear that it expects the EIS and TIA will need to be updated to fully comply with all the requirements of TMR's Guide to Traffic Imparrespective of when the Proponent updates the TIA, TMR will need to assess the draft MID based on the information presented to TMR through each process, noting the Proponent's intention to reuse information prepared for the EIS process for the MIDct Assessment in detail as soon as practical. This will be particularly important for identifying any infrastructure upgrades required during construction.
The later the TIA is updated the less likely it is that TMR will be able to adequately assess the project's impacts and proposed mitigation measures and the less likely it will be that the project will undergo a 'streamlined' Ministerial Infrastructure Designation (MID) process as anticipated by the Proponent in the draft Volume 3 Appendix M Infrastructure designation and planning. If the Proponent is still unable to update the Transport Chapter and TIA prior to submitting the post public consultation amended draft EIS to the Coordinator General, TMR will need to discuss options with the OCG.
Irrespective of when the Proponent updates the TIA, TMR will need to assess the draft MID based on the information presented to TMR through each process, noting the Proponent's intention to reuse information prepared for the EIS process for the MID.

Response:
A Traffic Impact Assessment (TIA) which complies with the Department of Transport and Main Roads' Guide to Traffic Impact Assessment to the Department of Transport and Main Roads will be provided at the beginning of the project's subsequent approval (currently anticipated to be a request for Ministerial Infrastructure Designation). Detailing additional information on design of road crossings in accordance with DTMR requirements.
The commitments register has been updated (13.6) as requested.

Submission 27

Issue: *(27.13) Road impacts*

Date: *05.11.2021*

Submitter: *Department of Transport and Main Roads*

Comment: Table 4–7 provides a summary of the location where the transmission lines will cross the rail corridor. No such table/summary is provided for where the transmission lines will cross state-controlled roads.

Response:
A Traffic Impact Assessment (TIA) which complies with the Department of Transport and Main Roads' Guide to Traffic Impact Assessment to the Department of Transport and Main Roads will be provided at the beginning of the project's subsequent approval (currently anticipated to be a request for Ministerial Infrastructure Designation). Detailing additional information on design of road crossings in accordance with DTMR requirements.
The commitments register has been updated (13.6) as requested.

Submission 27

Issue: *(27.14) Road impacts*

Date: *05.11.2021*

Submitter: *Department of Transport and Main Roads*

Comment: TMR notes that section 4.9 of the TIA indicates that the Proponent will assess the impact of the project on impacted railway level crossings by submitting a Traffic Plan to QR. TMR wishes to reiterate that once the proponent has identified haulage routes and vehicle types for the project, the TIA will need to be updated to assess the impact of project traffic on all impacted railway level crossings. This information should be submitted to TMR, not just QR. Impacted railway level crossings are those on all road links (including local government) where the development traffic exceeds 5% of the base traffic in either direction on the link's AADT in the year of opening of each stage (construction etc) as per TMR's Guide to Traffic Impact Assessment.

TMR has prepared draft conditions to protect the safety and efficiency of impacted railway level crossings. TMR will recommend similar conditions to the Minister for Planning when reviewing the project through the

subsequent Ministerial Infrastructure Designation process. TMR recommends that the final CG's report for the project included the draft conditions in Appendix A as recommended conditions for the subsequent Ministerial Designation process.

Response:

A Traffic management plan will be developed for the Project by the haulage contractor and will include consultation with the relevant transport authorities (including DTMR, QR and local councils). This plan will include a detailed rail impact assessment be supplied to Queensland Rail detailing the traffic volumes expected to traverse level rail crossings, the frequency and period of operation. This will include peak traffic volumes, such as daily workforce movements in addition to heavy, over dimensional vehicles that will cross rail structures including level crossings.

The commitments register has been updated (13.6) as requested.

Submission 27

Issue: *(27.15) Rail impacts*

Date: *05.11.2021*

Submitter: *Department of Transport and Main Roads*

Comment: (Chapter 6 & Appendix N) It is not clear from the draft EIS material exactly how ground disturbance will interface with the railway corridor. Therefore, TMR has included a recommended condition in Appendix A regarding earthworks to ensure works do not interfere, or result in damage to, infrastructure or services in the railway corridor

The EIS indicates the transmission line will traverse the railway corridor in three locations. Each tower will have a temporary and permanent disturbance footprint, and minor benching to prepare the site for foundation installation may be required. The Typical Details – Indicative Disturbance Areas for Towers – Sheets 1 and 2 show disturbance areas of 12m/17m x 80m within the easement. However, it is not clear how these will interface with the railway corridor.

Cleared areas for brake and winch sites are also required, located about 100 to 200m from the transmission tower, in line with the direction of pull and are required approximately every 5km to 10km. TMR recognises it is unlikely that these disturbance areas will be in proximity to the railway corridor.

Minimal earthworks may also be required for access tracks. The Mount Isa substation site will be benched for construction. This substation my include bored concrete, excavated or rock anchor foundations. Further, Appendix N states that communication cables or other conduits may be required within the railway corridor.

Response:

Noted.

Submission 27

Issue: *(27.16) Flooding*

Date: *05.11.2021*

Submitter: *Department of Transport and Main Roads*

Comment: (Chapter 17. section 17.4.15 and Chaper 9, section 9.4.1) TMR acknowledges the EIS indicates that flood analysis is intended to be undertaken at the detailed design stage. As such, it is not clear from the draft EIS exactly how the project will influence stormwater and flooding and the impact this may have on the railway corridor. Therefore, TMR has included a recommended condition in Appendix A to ensure the project does not result in worsening or actionable nuisance to the railway corridor.

Chapter 17 indicates that the project traverses several large catchment areas, major waterways and floodplain. In particular, there is a floodplain between Hughenden and Cloncurry, within the CopperString Core section of the project. The Mount Isa Line which parallels this section, is susceptible to flooding during the summer months.

Section 17.4.15 states that transmission towers will be constructed within flood prone areas however construction is proposed to occur where possible outside the wet season. It is understood that no substations, construction camps or other critical infrastructure is planned in the floodplain. Flood level modelling has not been undertaken during the preparation of the EIS and the EIS indicates that flood analysis is to be undertaken at the detailed design phase.

Further, Chapter 9 indicates that the construction of towers, substations, CEV huts and temporary camps and laydowns may alter existing flood and stormwater behaviours and impact on railway corridors. Despite this, section 9.4.1 indicates that no diversion or interception of overland flow will result from the project.

Response:

Noted.

Submission 27

Issue: *(27.17) Rail impacts*

Date: *05.11.2021*

Submitter: *Department of Transport and Main Roads*

Comment: Despite the proponent having an estimate for the energy transmitted, they failed to provide an assessment of the greenhouse gas emissions during operation. It is usual industry practice to calculate emissions associated with line losses for reporting purple.
As per comment 27.05. (TMR recommends that the final CG's report for the project included the draft conditions in Appendix A as recommended conditions for the subsequent Ministerial Designation process. TMR may redraft and add to these conditions as needed to reflect any additional information the Proponent or CG provide through the EIS process.)

Response:
Noted.

Submission 27

Issue: *(27.18) Rail impacts*

Date: *05.11.2021*

Submitter: *Department of Transport and Main Roads*

Comment: The construction of the towers and stringing of the transmission lines across the railway corridor has the potential to impact on the safety and efficiency of the railway corridor (e.g. earthworks, unauthorised access, level crossing safety, fencing, over dimensional loads etc). TMR has included a recommended condition in Appendix A requiring the preparation of a construction management plan to manage these risks.

Response:
Noted.

Submission 27

Issue: *(27.19) Noise and Vibrations*

Date: *05.11.2021*

Submitter: *Department of Transport and Main Roads*

Comment: Section 4.9 of Appendix X states that 'developments including worker accommodation will be located proximate to a type 2 multi-modal corridor, therefore requiring consideration of acceptable outcomes for noise intrusion, as per PO24 of the State Code 2.' However, Figure 2.1 appears to indicate the indicative construction camp locations will not be near the railway corridor, which is confirmed by Appendix N – SDAP Assessments which indicates that construction camps will not be located near active noise sources. The Mount Isa Line carries more than 15 trains per day, including freight and passenger services.
Given the uncertainty about the location of the works camps in relation to the railway corridor, TMR has included a recommended condition in Appendix A requiring noise attenuation at workers camps.

Response:
Noted.

Submission 27

Issue: *(27.20) Project configuration*

Date: *05.11.2021*

Submitter: *Department of Transport and Main Roads*

Comment: The transmission line and tower siting locations are shown in Appendix H. Where in the CopperString Core, the tower is located approximately 80m (drawing no. 42-21176-CSC-063 and revision A) from the railway and in the Mount Isa Augmentation, the tower is approximately 20m (drawing no. 42-21176-MIA-017 and revision A) from the railway. The tower siting plans do not appear to show where the transmission line crosses the railway corridor, within the Southern Connection.
Table 2-3 in Chapter 2 indicates that transmission tower heights will vary however maximum heights of 81m (CopperString Core) and 76m (Mount Isa Augmentation and Southern Connection) are noted. Despite the above, final transmission tower sites will be determined at detailed design stage.
To account for the uncertainty about final transmission tower proximity to the railway corridor, and the impact of the tower falling in the event of a derailment, TMR has recommended a condition regarding collision protection.

Response:
Noted.

COPPERSTRING 2.0

BASE/