SDA approval – conditions

Condition 1 - approved plans and documents		Timing
1.1	Carry out the approved development generally in accordance with the approved plans and documents as referenced in Table 1 (including any amendments marked in red), except insofar as modified by any of the conditions of this approval.	To be maintained at all times

Table 1 – approved plans and documents

Title	Prepared By	Document No	Date
Alton Downs to Raglan Pipeline: 3410 Cover Sheet	SMEC	30032687-DWG-34100-G-4000 Rev D	18/11/2022
Key Plan Sheet 1	SMEC	30032687-DWG-34100-C-4001 Rev D	18/11/2022
Key Plan Sheet 3	SMEC	30032687-DWG-34100-C-4003 Rev D	18/11/2022
Layout Plan CH14500 to CH1800 Sheet 5	SMEC	30032687-DWG-34100-C-4022 Rev D	18/11/2022
Layout Plan CH18000 to CH21500 Sheet 6	SMEC	30032687-DWG-34100-C-4023 Rev D	18/11/2022
Layout Plan CH21500 to CH25000 Sheet 7	SMEC	30032687-DWG-34100-C-4024 Rev D	18/11/2022
Layout Plan CH25000 to CH28500 Sheet 8	SMEC	30032687-DWG-34100-C-4025 Rev D	18/11/2022
Layout Plan CH28500 to CH32500 Sheet 9	SMEC	30032687-DWG-34100-C-4026 Rev D	18/11/2022
Layout Plan CH32500 to CH36500 Sheet 10	SMEC	30032687-DWG-34100-C-4027 Rev D	18/11/2022
Layout Plan CH36500 to CH40000 Sheet 11	SMEC	30032687-DWG-34100-C-4028 Rev D	18/11/2022
Layout Plan CH40000 to CH43500 Sheet 12	SMEC	30032687-DWG-34100-C-4029 Rev D	18/11/2022
Layout Plan CH43500 to CH47000 Sheet 13	SMEC	30032687-DWG-34100-C-4030 Rev D	18/11/2022
Layout Plan CH47000 to CH50500 Sheet 14	SMEC	30032687-DWG-34100-C-4031 Rev D	18/11/2022
Layout Plan CH50500 to CH54000 Sheet 15	SMEC	30032687-DWG-34100-C-4032 Rev D	18/11/2022
Layout Plan CH50500 to CH57000 Sheet 16	SMEC	30032687-DWG-34100-C-4033 Rev D	18/11/2022
Layout Plan CH57000 to CH60500 Sheet 17	SMEC	30032687-DWG-34100-C-4034 Rev D	18/11/2022
Layout Plan CH60500 to CH64500 Sheet 18	SMEC	30032687-DWG-34100-C-4035 Rev D	18/11/2022
Layout Plan CH64500 to CH68000 Sheet 19	SMEC	30032687-DWG-34100-C-4036 Rev D	18/11/2022
Layout Plan CH68000 to CH71500 Sheet 20	SMEC	30032687-DWG-34100-C-4037 Rev D	18/11/2022
Layout Plan CH71500 to CH75000 Sheet 21	SMEC	30032687-DWG-34100-C-4038 Rev D	18/11/2022
Layout Plan CH75000 to CH78500 Sheet 22	SMEC	30032687-DWG-34100-C-4039 Rev D	18/11/2022

Plan and Longitudinal Section General Notes & Legend Sheet 1	SMEC	30032687-DWG-34100-C-4040 Rev D	18/11/2022
Plan and Longitudinal Section Capricorn Highway Crossing Sheet 3	SMEC	30032687-DWG-34100-U-4191 Rev D	18/11/2022
Plan and Longitudinal Section Bruce Highway / Yeppen Rail Line Crossing Sheet 4	SMEC	30032687-DWG-34100-U-4192 Rev D	18/11/2022
Plan and Longitudinal Section Bajool Rail Crossing Sheet 5	SMEC	30032687-DWG-34100-U-4193 Rev D	18/11/2022
Plan and Longitudinal Section Inkerman Creek Crossing Sheet 6	SMEC	30032687-DWG-34100-U-4194 Rev D	18/11/2022
Plan and Longitudinal Section Horrigan Creek Crossing Sheet 7	SMEC	30032687-DWG-34100-U-4195 Rev D	18/11/2022
Plan and Longitudinal Section Raglan Creek Crossing Sheet 8	SMEC	30032687-DWG-34100-U-4196 Rev D	18/11/2022
Plan and Longitudinal Section Gavial Creek Crossing Sheet 9	SMEC	30032687-DWG-34100-U-4197 Rev D	18/11/2022
Plan and Longitudinal Section Bob's Creek Crossing Sheet 10	SMEC	30032687-DWG-34100-U-4198 Rev D	18/11/2022
Plan and Longitudinal Section Bajool Port Alma Road Crossing Sheet 11	SMEC	30032687-DWG-34100-U-4199 Rev D	18/11/2022
Raglan to Aldoga Pipeline: 34200 Cover Sheet	SMEC	30032687-DWG-34200-G-6000 Rev D	18/11/2022
Key Plan	SMEC	30032687-DWG-34200-C-6003 Rev D	18/11/2022
Layout Plan CH76000 to CH79500 Sheet 1	SMEC	30032687-DWG-34200-C-6014 Rev D	18/11/2022
Layout Plan CH79500 to CH83500 Sheet 2	SMEC	30032687-DWG-34200-C-6015 Rev D	18/11/2022
Layout Plan CH83500 to CH87500 Sheet 3	SMEC	30032687-DWG-34200-C-6016 Rev D	18/11/2022
Layout Plan CH87500 to CH91500 Sheet 4	SMEC	30032687-DWG-34200-C-6017 Rev D	18/11/2022
Layout Plan CH91500 to CH95500 Sheet 5	SMEC	30032687-DWG-34200-C-6018 Rev D	18/11/2022
Layout Plan CH95500 to CH99522.718 Sheet 6	SMEC	30032687-DWG-34200-C-6019 Rev D	18/11/2022
Plan and Longitudinal Section General Notes & Legend	SMEC	30032687-DWG-34200-C-6034 Rev D	18/11/2022
Plan and Longitudinal Section Alternative Route Dart's Creek Road Crossing	SMEC	30032687-DWG-34200-U-6152 Rev D	18/11/2022
Typical Details General Notes	SMEC	30032687-DWG-34000-C-0200 Rev C	27/5/2022
Typical Details Pipe Trenches and Embedment	SMEC	30032687-DWG-34000-C-0201 Rev C	27/5/2022
Typical Details Access Manhole	SMEC	30032687-DWG-34000-C-0203 Rev B	14/1/2022

Typical Details Air Relief and Surge Protection	SMEC	30032687-DWG-34000-C-0207 Rev B	14/1/2022
Typical Details Scour connection and Discharge Outlets	SMEC	30032687-DWG-34000-C-0208 Rev B	14/1/2022
Typical Details Flowmeter Chamber	SMEC	30032687-DWG-34000-C-0209 Rev B	14/1/2022
Typical Details Isolation Valve Chamber	SMEC	30032687-DWG-34000-C-0211 Rev B	14/1/2022
Typical Details Typical Pipeline Construction Details	SMEC	30032687-DWG-34000-C-0222 Rev A	23/8/2022
Overall Drawing Index Sheet 2	SMEC	30032687-DWG-3200-G-0112 Rev B	14/1/2022
Fitzroy to Gladstone Pipeline Project – planning report for Material Change of Use – FGP SGIC SDA alignment	GHD Pty Ltd	12559247	13/1/2023
Special Area Plan – Ornamental Snake and Brigalow habitat within the Stanwell-Gladstone Infrastructure Corridor State Development Area	GAWB		June 2023
Special Area Plan – Yellow chat habitat within the Stanwell-Gladstone Infrastructure Corridor State Development Area	GAWB		June 2023
Special Area Plan – Trenchless waterway crossings within the Stanwell-Gladstone Infrastructure Corridor State Development Area	GAWB		June 2023
Gladstone Area Water Board – Fitzroy to Gladstone Pipeline Construction Environmental Management Plan	GAWB	1151-DL00-GWB-XEV-MAP00001	July 2023

Condition 2 - commencement of the site works / construction /use / decommissioning / rehabilitation		**Timing**
2.1	Notify the Coordinator-General in writing of the date of commencement of site works, construction, use, decommissioning, and rehabilitation following decommissioning.	*Within 30 business days of commencement of the relevant stage*

Condition 3 – 'As constructed' plans		**Timing**
3.1	Prepare and submit to the Coordinator-General, 'As constructed' plans certified by RPEQ or other independent suitably qualified person.	*Within 30 business days of commencement of use*

	The plans must show that the development has been constructed generally in accordance with the plans referenced in Table 1 of Condition 1. Plans must be submitted in electronic pdf and shape files.	

Condition 4 - auditing		**Timing**
4.1	Prepare and submit an audit report to the Coordinator-General. The audit report must be prepared by an independent suitably qualified person to determine whether the conditions of this approval have been complied with. Audit reports are required for both temporary and permanent infrastructure within 30 business days of the following: (a) commencement of site works (b) every six months during construction (c) commencement of the use (d) decommissioning (e) rehabilitation. An audit report is to contain detail consistent with the information provided in **Enclosure 1.**	*As indicated*

Condition 5 - inspection		**Timing**
5.1	Permit the Coordinator-General, or any person authorised by the Coordinator-General, to inspect any aspect of the development.	*At all times*

Condition 6 – construction environmental management plan		**Timing**
6.1	Undertake all works generally in accordance with the Gladstone Area Water Board – Fitzroy to Gladstone Pipeline Construction Environmental Management Plan (Plan number 1151-DL00-GWB-XEV-MAP000010 dated July 2023 in Table 1 which must be current and available on site at all times during the construction period.	*At all times*

Condition 7 – Construction hours		**Timing**
7.1	Construction works will be limited to between 6:30am to 6:30pm Monday to Saturday. Construction works will be permitted on Sunday between 6:30am to 6:30pm where consultation has occurred and written agreement by the sensitive receptor received where construction impacts on a sensitive receptor/s' property. A copy of the written agreements with sensitive receptor/s must be submitted to the Coordinator-General two days prior to construction occurring on a Sunday that impacts a sensitive receptor/s' property that adjoins the right of way.	*As indicated*
7.2	Blasting must not occur on Sundays or public holidays.	*As indicated.*

Condition 8 – Acid sulfate soils		**Timing**
8.1	Prepare and submit to the Coordinator-General an acid sulfate soils management plan certified by a suitably qualified and experienced professional in accordance with current best practice that: (a) avoids the disturbance of acid sulfate soils (ASS) or	*Prior to commencement of construction*

	(b) ensures that the disturbance of ASS avoids or minimises the mobilisation and release of acid and metal contaminants.	
8.2	Clearing must not occur within 100 metres of a salinity expression area. *Note:* a salinity expression area is defined in the General guide to the vegetation clearing codes – Accepted development vegetation clearing codes dated 7 February 2020 prepared by Department of Natural Resources, Mines and Energy.	*As indicated*
8.3	Clearing in land zone 1, land zone 2 or land zone 3 in areas below the five (5) metre Australian Height Datum must only occur where: • acid sulfate soils are managed consistent with the State Planning Policy, the then Department of Infrastructure, Local Government and Planning, July 2017, and with the soil management guidelines in the Queensland Acid Sulfate Soil Technical Manual, Department of Science, Information Technology Innovation and the Arts, 2014.	*As indicated*
8.4	Undertake all works, including excavation, removal and on-site treatment of all acid sulfate soils generally in accordance with the certified acid sulfate soils management plan.	*Prior to commencement of construction and ongoing*

Condition 9 – operations environmental management plan		**Timing**
9.1	Prepare and submit to the Coordinator-General an operations environmental management plan EMP (by a suitably qualified person in accordance with current best practice) that includes the following: (a) a monitoring program to identify issues of non-compliance, actions for correcting any non-compliance and who is responsible for undertaking those actions; (b) a timetable and process for review of the operations EMP to assess its effectiveness and to implement amendments as required. Note: The operations EMP must contain detail consistent with the information provided in **Enclosure 2.** Undertake all works generally in accordance with the operations EMP which must be current and available on site at all times.	*The final project operations EMP is to be submitted to the Coordinator-General at least 30 business days prior to the proposed operations commencement date.*

Condition 10 – traffic management		**Timing**
10.1	Prepare and submit to the Coordinator-General a Traffic Management Plan, prepared and certified by a person holding a current Traffic Management Level 3 qualification or higher, to ensure traffic impacts are managed during construction and operation. The Traffic Management Plan must: (a) include requirements from Table 7-17 of the CEMP included in Condition 1.1 Table 1 of this approval; (b) minimise site access locations; (c) provide for the management of traffic around and through the site during and outside of construction and operational hours of work; (d) provide for parking and materials delivery during and outside of construction and operational hours of work; (e) include plans risk identification and assessment, staging, etc.;	*At least 15 business days prior to the commencement of construction.*

	(f) implementation; (g) include monitoring and measurement; (h) include management review; and (i) include traffic control plans or traffic control diagrams, prepared in accordance with Manual of Uniform Traffic Control Devices for any temporary part or full road closures of any Council or State-controlled Road(s).	
10.2	Undertake all works in accordance with the Traffic Management Plan which must be current and available on site at all times during the construction period.	*At all times.*

Condition 11 – sediment and erosion control plan		**Timing**
11.1	Undertake all works generally in accordance with the Erosion and Sediment Control Plan contained in the Gladstone Area Water Board – Fitzroy to Gladstone Pipeline Construction Environmental Management Plan (Plan number 1151-DL00-GWB-XEV-MAP000010) dated July 2023 in Table 1 which must be current and available on site at all times during the construction period.	*At all times*

Condition 12 – hazardous materials		**Timing**
12.1	All flammable and combustible liquids (including hazardous waste materials) must be contained within an on-site containment system, controlled in a manner that prevents environmental harm and must be maintained in accordance with the current edition of *AS1940—Storage and Handling of Flammable and Combustible Liquids*.	*At all times*
12.2	All containers must be secured to prevent movement during a flood event.	*At all times*

Condition 13 – complaints		**Timing**
13.1	Record all complaints received relating to the development in a register that includes, as a minimum: (a) date and time when complaint was received; (b) complainant's details including name and contact information; (c) reasons for the complaint; (d) investigations undertaken and conclusions formed; (e) actions taken to resolve this complaint, including the time taken to implement these actions; (f) include a notation in the register as to the satisfaction (or dissatisfaction) of the complainant with the outcome. Prepare and provide a response to the complainant within 48 hours of receipt of the complaint. Provide an up to date copy of the register to the Coordinator-General with each audit report required under Condition 4 – Auditing.	*At all times* *As indicated* *As indicated*

Condition 14 – decommissioning and rehabilitation	**Timing**

14.1	Prepare a decommissioning plan (by a suitably qualified person in accordance with current best practice) that includes the following: (a) plans showing full or partial decommissioning; (b) plans showing "make safe" decommissioning to leave a structure/s in place for use by others (to be named); (c) timeframe required for decommissioning project including operating hours of work; (d) management of noise and dust generated from the site during decommissioning work hours; (e) site clearance and remediation plans detailing the proposed works and timing to restore the site; (f) a monitoring program to identify issues of non-compliance, actions for correcting any non-compliance and who is responsible for undertaking those actions; (g) a timetable and process for review of the decommissioning plan to assess its effectiveness and to implement amendments as required.	*Submit six (6) months prior to the commencement date of all decommissioning activities.*
14.2	Undertake all works generally in accordance with the decommissioning plan which must be current and available on site at all times during the decommissioning period.	*At all times during decommissioning period*
14.3	Provide notification and photographic evidence to the Coordinator-General that the construction site has been decommissioned and the site rehabilitated.	*Within 30 business days of the completion of all decommissioning activities*
14.4	At the expiry of the project, the project must be decommissioned and the site rehabilitated within 12 months.	*As indicated*

Condition 15 - repair of damage		**Timing**
15.1	Repair any property or infrastructure damage (e.g. property fencing, roads, service infrastructure) and re-instate existing signage and pavement markings that have been removed or damaged during any works carried out in association with the approved development.	*Prior to commencement of development and ongoing*

Condition 16 – lighting		**Timing**
16.1	Ensure outdoor lighting installed within the development minimises light spill in the adjacent properties and sensitive receptors in accordance with AS4282:1997 Control of obtrusive effects of outdoor lighting.	*To be maintained*

Condition 17 – temporary works		**Timing**
17.1	All temporary works listed below are to remain no longer than 12 months from the completion of construction: (a) Laydown areas (b) Temporary construction access tracks (c) Other temporary infrastructure not required for operation.	*As indicated*
17.2	Remove all temporary works once the use has commenced.	*As indicated*

Advice

Currency period

This SDA approval is valid until the end of the currency period, four years after the date of approval, unless the approval states a different period. For the SDA approval to remain valid the proponent must have, before the end of the currency period:

- (if the development is reconfiguring a lot) provided the plan of subdivision to the Coordinator-General for approval in accordance with the relevant development scheme; or
- (for all other development) substantially started the development; or
- made an application to the Coordinator-General to extend the currency period.

Other approvals

This approval relates solely to the material change of use for materials transportation and services infrastructure (water pipeline) within the SGIC State Development Area. All other approvals and/or permits required under local, state and/or commonwealth legislation must be obtained prior to the commencement of the use.

The proponent shall notify the Coordinator-General when the set of approvals has been received that would allow the Gladstone-Fitzroy Pipeline Project to proceed.

Cultural heritage – duty of care

Where items of archaeological importance are identified during construction of the project, the proponent must comply with its duty of care under the *Aboriginal Cultural Heritage Act 2003* and the Department of Environment and Heritage Protection 2014 guideline: archaeological investigations. All work must cease and the relevant State agency must be notified. Work can resume only after State agency clearance is obtained.

Department of Agriculture and Fisheries

DAF notes the operational works identified as associated with the MCU will have significant impacts on marine plants. However, DAF notes that the impacts to marine plants are being addressed through Planning Act development approvals. The works do not enter any declared Fish Habitat Areas.

The proposed trenching and under-boring mechanisms avoid the works being Waterway Barrier Works. Should this change, a further authority may be required for this component of the proposed works.

Department of Transport and Main Roads

The Department of Transport and Main Roads (DTMR) is to confirm the Fitzroy to Gladstone Pipeline construction methodology and design is appropriate. Gladstone Area Water Board (GAWB) is required to submit detailed design of the pipeline and enveloper pipe to be installed at the Rockhampton Ring Road location via the PARC portal and receive approval before construction at the Rockhampton Ring Road location. Detail design must be approved and signed by a RPEQ engineer.

DMTR and GAWB to continue regular consultation regarding the timing of the Rockhampton Ring Road and Fitzroy to Gladstone Pipeline construction timeline and establish a construction interface plan if construction of projects is expected to overlap.

DMTR and GAWB to continue regular consultation in relation to the design and construction of both projects.

Department of Resources

Clearing of vegetation for the proposed development must only occur within Area A (Parts A16 – A59) as shown on the attached:

- Relevant Purpose Determination Plan, prepared by Queensland Government, reference RPDP 2022/2389, Version 2, Sheets 1 to 8 (**Enclosure 3**).

An operational works approval under the *Planning Act 2016* for the clearing of native vegetation will be required for clearing that is not accepted development.

Clearing that is proposed to be accepted development should be confirmed by the Department of State Development, Infrastructure, Local Government and Planning.

Any person(s) engaged or employed to carry out the clearing of vegetation under this development approval must be provided with a full copy of this development approval and must be made aware of the full extent of clearing authorised by this development approval.

Clearing of vegetation has the potential to disturb the roots of the trees of proposed retained vegetation thereby resulting in the death of trees not approved to be cleared under this development approval. It is recommended clearing and excavation activities be undertaken in accordance with the *'Australian Standards for the Protection of Trees on Development Sites (AS4970-2009)'* to avoid any consequential unauthorised clearing.

It is strongly recommended that contested areas of regulated vegetation mapping are formalised through a property map of assessable vegetation (PMAV) assessment process. Further information on how to apply for a PMAV, the required supporting information, and any fee, is available online at www.qld.gov.au/environment/land/management/vegetation/maps/map-correction

Mineral Resources Act 1989* and *Geothermal Energy Act 2010

It is recommended that the proponent contact the following holders in the proposed development corridor to discuss their plans for the resource/geothermal development area.

EPM 26476 for minerals other than Coal granted under *Mineral Resources Act 1989*. This authority is held by Ragland Resources Pty Ltd	C/- UTM Global Pty Ltd. G P O BOX 1661 BRISBANE QLD 4001 Email: reception@utmglobal.com.au
EPMA 28261 for minerals other than Coal application is made under the *Mineral Resources Act 1989*. The application is made by Asgard Gold Pty Ltd	C/- Warwick Anderson, PO Box 2363, Keperra QLD 4054 Email: warwick@#goldexploration.com.au
EPGA 2032 to enable and facilitate the production of geothermal energy. The application is made under the *Geothermal Energy Act 2010*. The application is made by Within Energy Pty Ltd	C/- Adam Stepanoff, 208 Herries Street, Toowoomba QLD 4350 Email: adam@refinegroup.com.au
EPGA 2028 to enable and facilitate the production of geothermal energy. The application is made under the *Geothermal Energy Act 2010*	C/- Adam Stepanoff, 208 Herries Street, Toowoomba QLD 4350 Email: adam@refinegroup.com.au

Powerlink

Should any doubt existing in maintaining the prescribed clearance to electrical infrastructure the applicant is obliged under the *Electricity Safety Act 2002* to seek advice from Powerlink.

Design is undertaken in accordance with Annex A and draft pipeline guide attached (both of which are included at **Enclosure 4**).

This response does not constitute an approval to commence any works within the easement. Prior written approval is required from Powerlink Queensland before any work is undertaken within the easement areas. All works on easement (including but not limited to earthworks, drainage and detention basins; road construction; underground and overhead service installation) require detailed submissions, assessments and consent (or otherwise) by Powerlink,

In order for Powerlink to maintain and operate a safe and reliable supply of electricity, we require unrestricted 24-hour access to Powerlink corridors and infrastructure. Powerlink requires practical access (typically by 4WD vehicle – but to standard no less than existing to the Powerlink structures). If it is envisaged that there will be any interference or alteration to access arrangements prior, during or after the completion of works, we require the applicant to contact the Easement Maintenance Service Provider (Ergon Energy – Peter Gorrie – ph 0417 199 931) to formalise unrestricted 24-hour access arrangements.

Compliance with the *Electricity Safety Act 2002* including any Code of Practice under the Act and the *Electrical Safety Regulation 2013* including any safety exclusion zones defined in the Regulation.

In respect of this application, the exclusion zone for untrained persons and for operating plant operated by untrained persons is six (6) metres from the 275,000 volt wires and exposed electrical parts.

If works have the potential to come within the prescribed clearance to the conductors and electrical infrastructure, the applicant must seek advice from Powerlink and complete the Application for Safety Advice form.

Rockhampton Regional Council

Note that there is existing water infrastructure along the Capricorn Highway – 375mm diameter MPVC watermain and the Old Capricorn Highway – 300mm diameter uPVC watermain that the proposed alignment of the pipeline intersects with.

The proposed alignment is also covered by various overlays including acid sulphate, biodiversity, bushfire hazard, coastal protection, flood hazard and steep land.

Enclosure 1

The following information will be required in an audit report:

- Details of the development approval, including the SDA approval number, the date of approval and a summary of the audit reporting requirements. This should include a schedule of the dates by which audit reporting is to be provided to the Coordinator-General.

- Details of the independent, suitably qualified person(s) (the auditor) responsible for preparing the audit report, including the auditor(s):

  - name, position, company and contact details

  - qualifications and experience

  - proof that the auditor is an independent third party unaffiliated with the proponent.

- Details of any external suitably qualified person(s) used to supplement reports/plans outside of the auditor's expertise.

- An audit evaluation matrix including but not limited to:

  - each condition of the SDA approval, and the status of the condition at the end of the relevant audit period

  - where a condition is current or complete, (to be activated, activated, complete), whether compliance has been achieved (compliant, non-compliant or not applicable), how compliance has been achieved (description of works, tasks or actions undertaken) and how the evaluation of the audit has been undertaken

  - a full description of the relevant standards, practices etc. against which works have been assessed together with evidence (reports, site photographs, certification documentation) to support the evaluation of the works against the compliance standards

  - the title, date, location and holder of any documentation referred to in the compliance evaluation matrix but not provided with the audit to allow the Coordinator-General to call upon these documents as required

  - details of any non-compliances identified by any party during the current audit period and a methodology specifying how compliance has been/will be achieved and by when it will be achieved, and

  - details of previous audit reports (if relevant) with an update on any non-compliance, corrective actions and revised practices (as relevant) undertaken and the current status of any corrective actions.

- Additional evidence to support the compliance evaluation, including the date and locations of any site inspection/s conducted during the preparation of the audit report and details of any employees of the proponent interviewed for the audit.

- The auditor's declaration whereby the auditor:

  - certifies the conditions contained in the SDA approval have been satisfactorily complied with, subject to any qualifications which the author has outlined in the audit report

  - certifies that to the best of the auditor's knowledge, all information provided in the audit report is true, correct and complete, and

- acknowledges it is an offence under section 157O of the *State Development and Public Works Organisation Act 1971*, to give the Coordinator-General a document containing information the auditor knows is false or misleading in any material particular.

- Any further attachments the auditor considers relevant to the audit report.

An audit report guideline has been prepared to provide guidance to proponents and auditors in compiling audit reports. The guideline is available on the Department of State Development, Infrastructure, Local Government and Planning website at https://www.statedevelopment.qld.gov.au/coordinator-general/state-development-areas/development-schemes-applications-and-requests or by contacting the Planning and Services Division on 1800 001 048 or via sdainfo@coordinatorgeneral.qld.gov.au.

Enclosure 2 – Contents of operations EMP

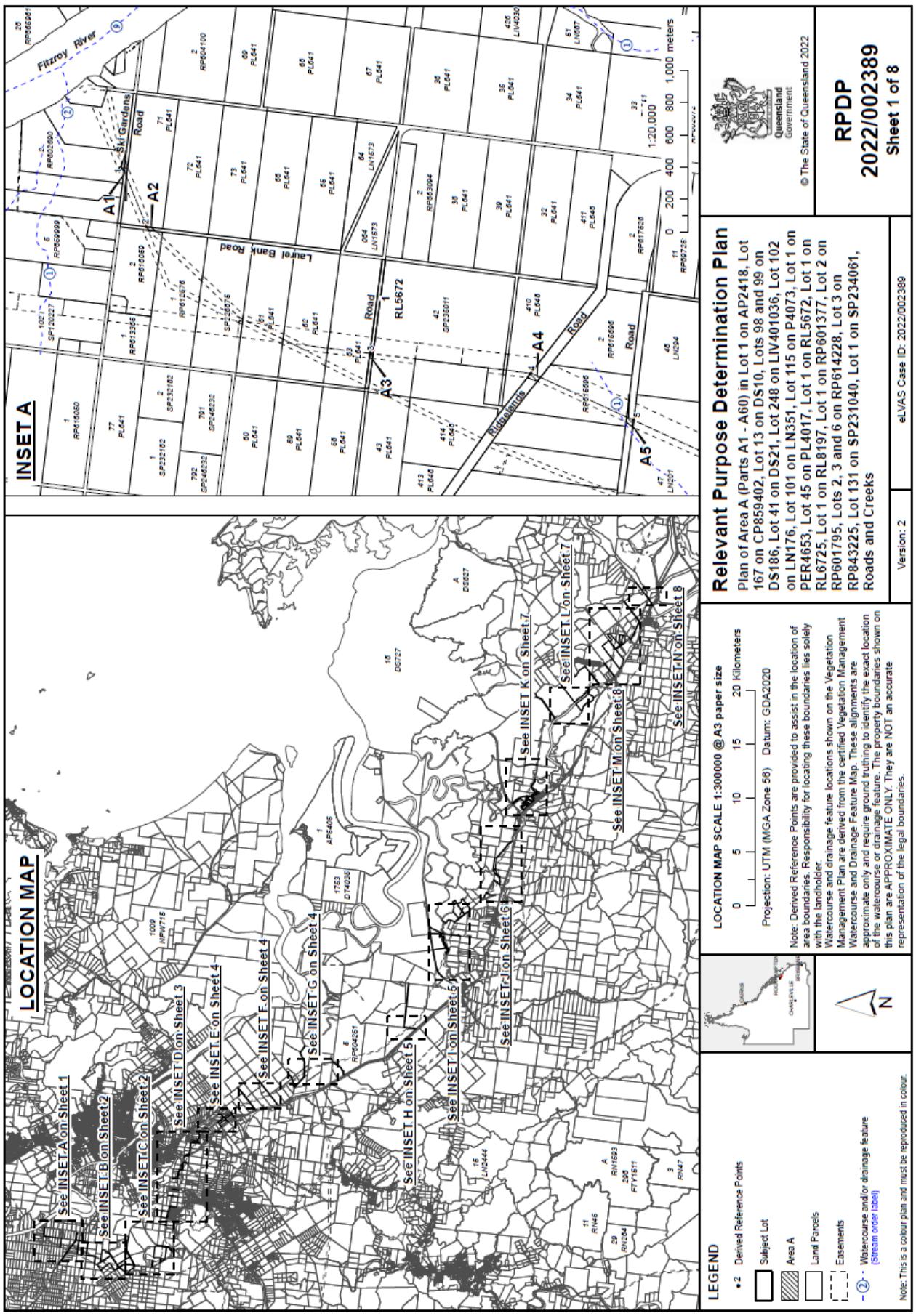
Part A

The operations EMP shall contain control plans for at least the following:

- project environmental management
- climate impacts
- land use and infrastructure
- erosion and sedimentation
- contaminated land
- acid sulfate soils
- vegetation clearing
- introduced/pest fauna
- fauna management and protection
- weed management
- water resources and water quality
- air environment
- waste management
- hydrotesting and commissioning
- noise and vibration management
- transport and access
- cultural heritage
- social and economic environment – complaints procedure
- handling and storage of dangerous goods
- health and safety management
- emergency management
- landscape and visual amenity management

In addition, the EMP shall contain Special Area Plans referenced in Condition 1.1 Table 1.

Enclosure 3


INSET A
LOCATION MAP
See INSET A on Sheet 1
See INSET B on Sheet 2
See INSET C on Sheet 2
See INSET D on Sheet 3
See INSET E on Sheet 4
See INSET F on Sheet 4
See INSET G on Sheet 4
See INSET H on Sheet 5
See INSET I on Sheet 5
See INSET J on Sheet 6
See INSET K on Sheet 7
See INSET L on Sheet 7
See INSET M on Sheet 8
See INSET N on Sheet 8
Fitzroy River
Sky Gardens Road
Laurel Bank Road
Ridgelands Road
RL5672
A1
A2
A3
A4
A5
LEGEND
Derived Reference Points
Subject Lot
Area A
Land Parcels
Easements
Watercourse and/or drainage feature (Stream order label)
Note: This is a colour plan and must be reproduced in colour.
VMGIS-NR-1142
LOCATION MAP SCALE 1:300000 @ A3 paper size
0 5 10 15 20 Kilometers
Projection: UTM (MGA Zone 56) Datum: GDA2020
Note: Derived Reference Points are provided to assist in the location of area boundaries. Responsibility for locating these boundaries lies solely with the landholder.
Watercourse and drainage feature locations shown on the Vegetation Management Plan are derived from the certified Vegetation Management Watercourse and Drainage Feature Map. These alignments are approximate only and require ground truthing to identify the exact location of the watercourse or drainage feature. The property boundaries shown on this plan are APPROXIMATE ONLY. They are NOT an accurate representation of the legal boundaries.
N
Relevant Purpose Determination Plan
Plan of Area A (Parts A1 - A60) in Lot 1 on AP2418, Lot 167 on CP859402, Lot 13 on DS10, Lots 98 and 99 on DS186, Lot 41 on DS21, Lot 248 on LIV401036, Lot 102 on LN176, Lot 101 on LN351, Lot 115 on P4073, Lot 1 on PER4653, Lot 45 on PL4017, Lot 1 on RL5672, Lot 1 on RL6725, Lot 1 on RL8197, Lot 1 on RP601377, Lot 2 on RP601795, Lots 2, 3 and 6 on RP614228, Lot 3 on RP843225, Lot 131 on SP231040, Lot 1 on SP234061, Roads and Creeks
Version: 2
eLVAS Case ID: 2022/002389
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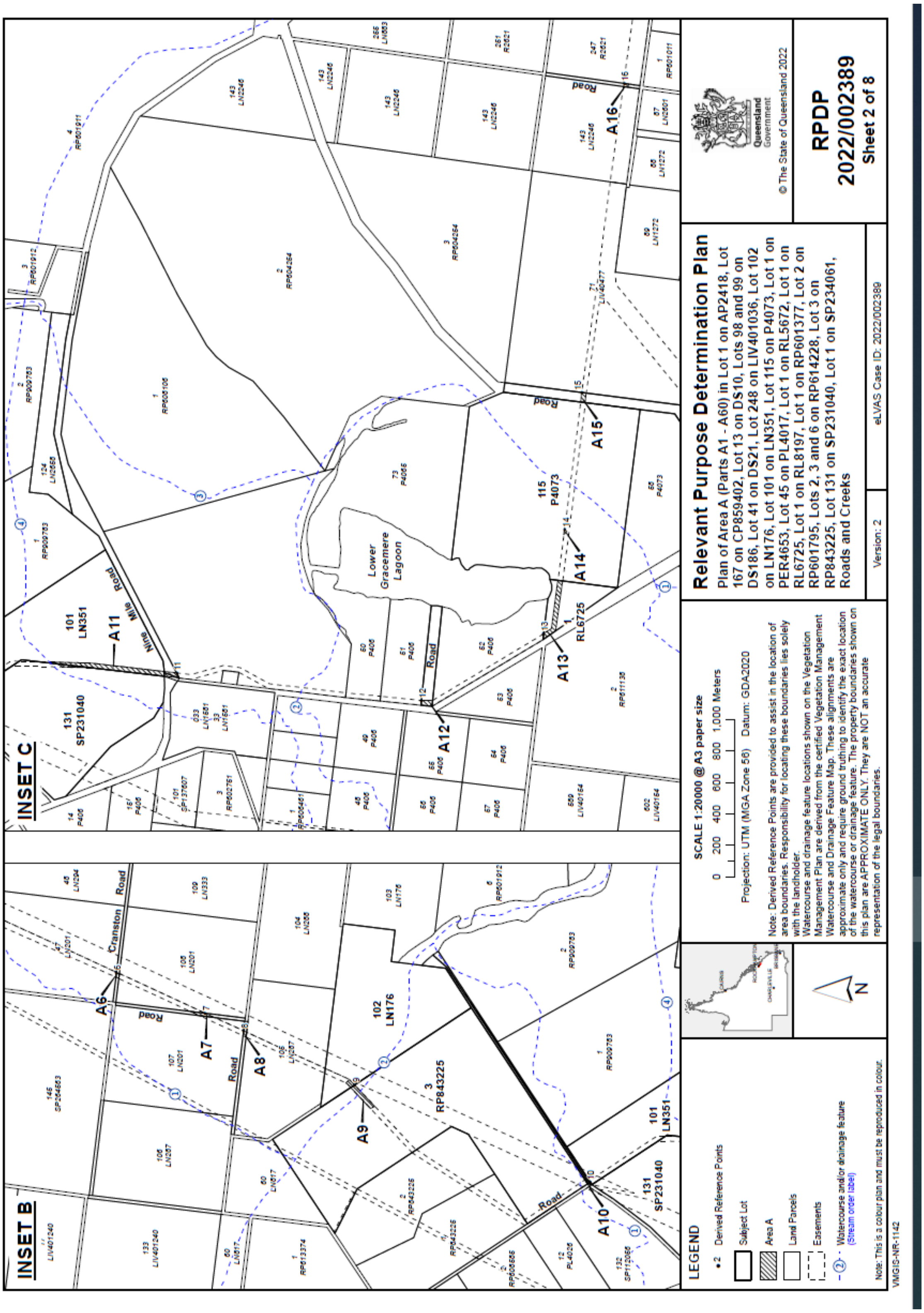
RPDP
2022/002389
Sheet 1 of 8


Relevant Purpose Determination Plan
Plan of Area A (Parts A1 - A60) in Lot 1 on AP2418, Lot 167 on CP859402, Lot 13 on DS10, Lots 98 and 99 on DS186, Lot 41 on DS21, Lot 248 on LIV401036, Lot 102 on LN176, Lot 101 on LN351, Lot 115 on P4073, Lot 1 on PER4653, Lot 45 on PL4017, Lot 1 on RL5672, Lot 1 on RL6725, Lot 1 on RL8197, Lot 1 on RP601377, Lot 2 on RP601795, Lots 2, 3 and 6 on RP614228, Lot 3 on RP843225, Lot 131 on SP231040, Lot 1 on SP234061, Roads and Creeks
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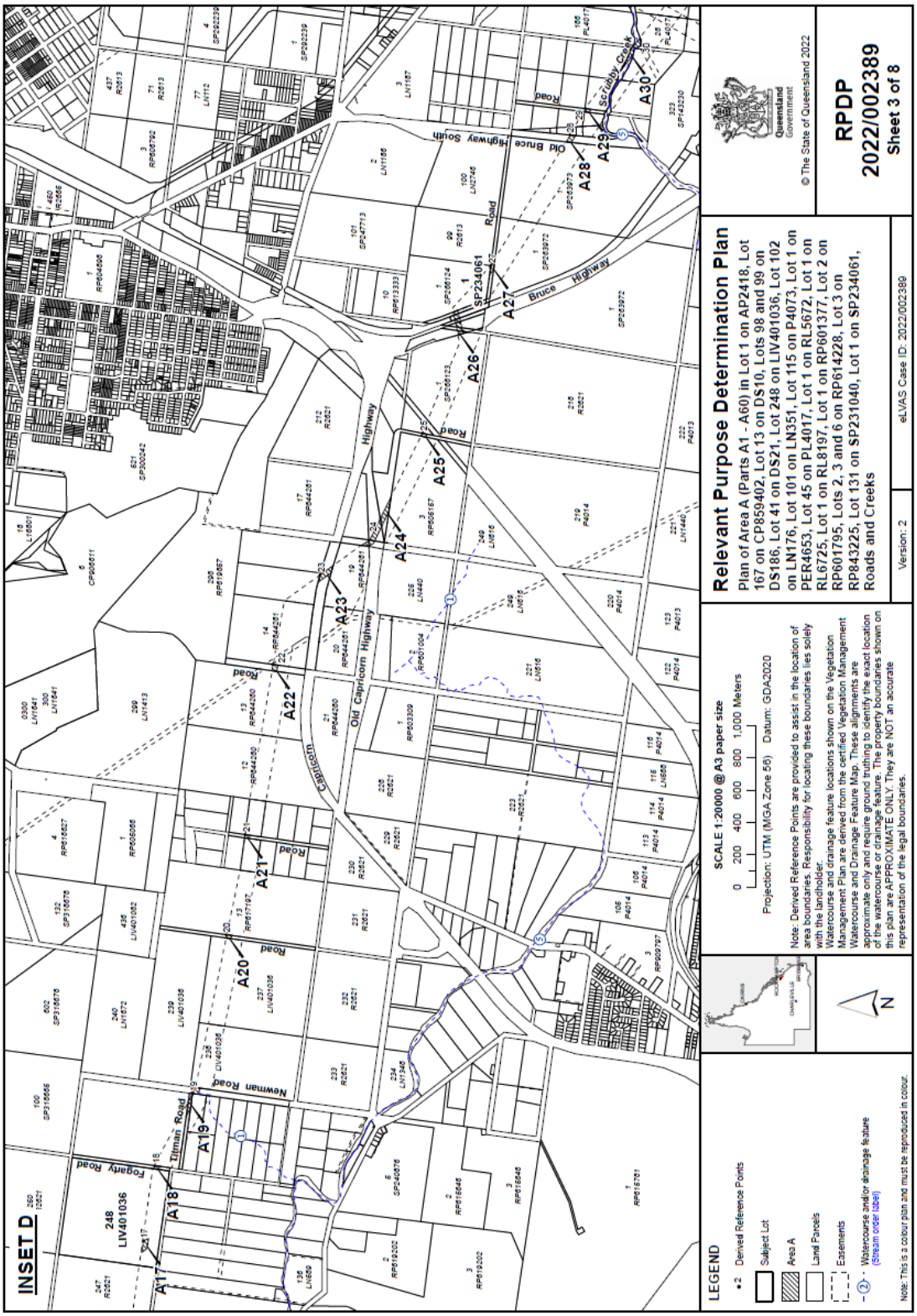
Version: 2
eLVAS Case ID: 2022/002389
INSET B
INSET C
Lower Gracemere Lagoon
LEGEND
SCALE 1:20000 @ A3 paper size
Projection: UTM (MGA Zone 56) Datum: GDA2020
VMGIS-NR-1142


INSET D
Relevant Purpose Determination Plan
Plan of Area A (Parts A1 - A60) in Lot 1 on AP2418, Lot 167 on CP859402, Lot 13 on DS10, Lots 98 and 99 on DS186, Lot 41 on DS21, Lot 248 on LIV401036, Lot 102 on LN176, Lot 101 on LN351, Lot 115 on P4073, Lot 1 on PER4653, Lot 45 on PL4017, Lot 1 on RL5672, Lot 1 on RL6725, Lot 1 on RL8197, Lot 1 on RP601377, Lot 2 on RP601795, Lots 2, 3 and 6 on RP614228, Lot 3 on RP843225, Lot 131 on SP231040, Lot 1 on SP234061, Roads and Creeks
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eLVAS Case ID: 2022/002389
RPDP
2022/002389
Sheet 3 of 8
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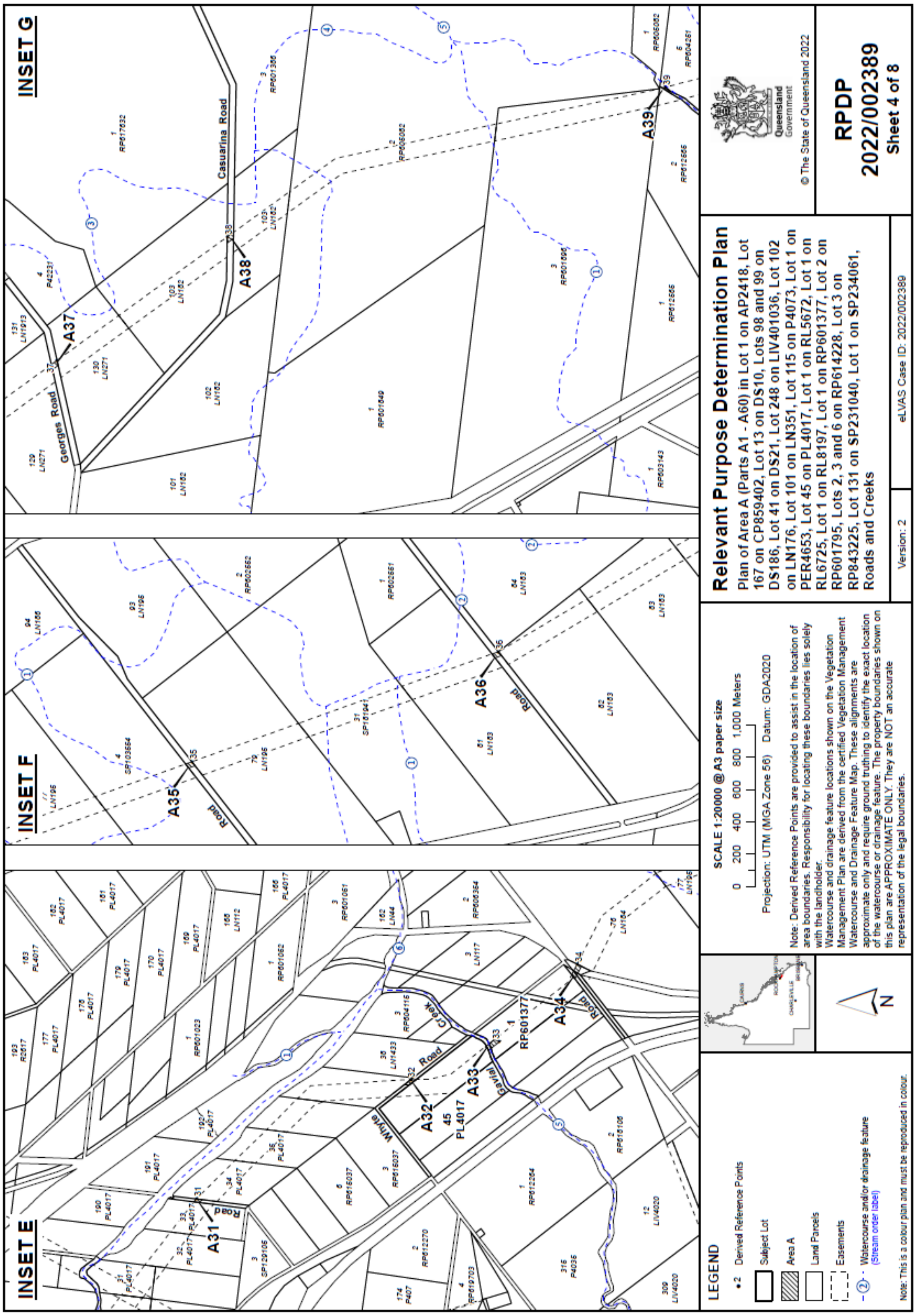
Queensland Government
SCALE 1:20000 @ A3 paper size
0 200 400 600 800 1,000 Meters
Projection: UTM (MGA Zone 56) Datum: GDA2020
Note: Derived Reference Points are provided to assist in the location of area boundaries. Responsibility for locating these boundaries lies solely with the landholder.
Watercourse and drainage feature locations shown on the Vegetation Management Plan are derived from the certified Vegetation Management Watercourse and Drainage Feature Map. These alignments are approximate only and require ground truthing to identify the exact location of the watercourse or drainage feature. The property boundaries shown on this plan are APPROXIMATE ONLY. They are NOT an accurate representation of the legal boundaries.
LEGEND
Derived Reference Points
Subject Lot
Area A
Land Parcels
Easements
Watercourse and/or drainage feature (Stream order label)
Note: This is a colour plan and must be reproduced in colour.
VMGIS-NR-1142
Old Bruce Highway South
Bruce Highway
Old Capricorn Highway
Capricorn Highway
Newman Road
Tilman Road
Rogerty Road
Scrubby Creek Road
A17
A18
A19
A20
A21
A22
A23
A24
A25
A26
A27
A28
A29
A30


INSET E
INSET F
INSET G
Relevant Purpose Determination Plan
Plan of Area A (Parts A1 - A60) in Lot 1 on AP2418, Lot 167 on CP859402, Lot 13 on DS10, Lots 98 and 99 on DS186, Lot 41 on DS21, Lot 248 on LIV401036, Lot 102 on LN176, Lot 101 on LN351, Lot 115 on P4073, Lot 1 on PER4653, Lot 45 on PL4017, Lot 1 on RL5672, Lot 1 on RL6725, Lot 1 on RL8197, Lot 1 on RP601377, Lot 2 on RP601795, Lots 2, 3 and 6 on RP614228, Lot 3 on RP843225, Lot 131 on SP231040, Lot 1 on SP234061, Roads and Creeks
Version: 2
eLVAS Case ID: 2022/002389
RPDP
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Sheet 4 of 8
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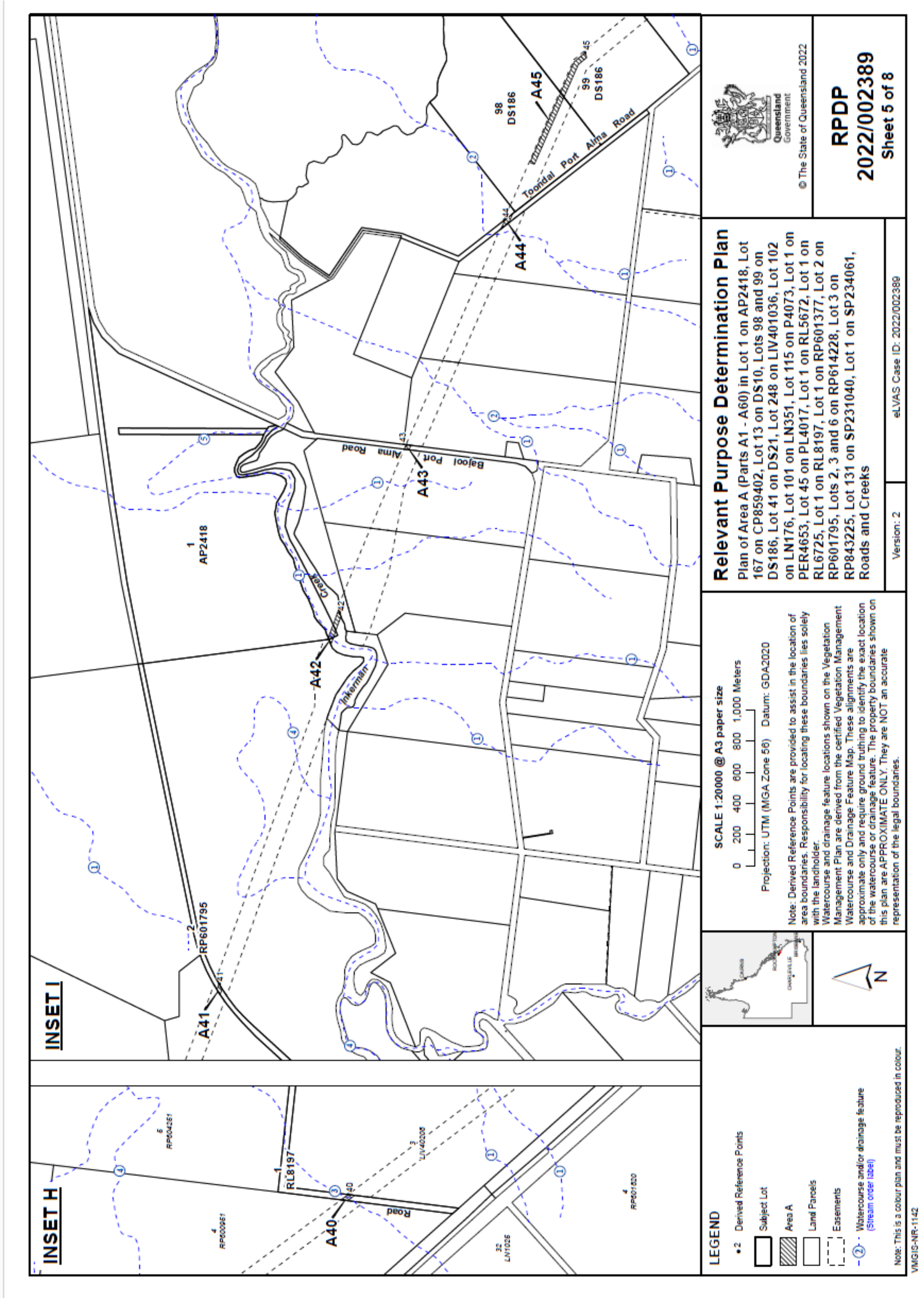
SCALE 1:20000 @ A3 paper size
Projection: UTM (MGA Zone 56) Datum: GDA2020
LEGEND
Derived Reference Points
Subject Lot
Area A
Land Parcels
Easements
Watercourse and/or drainage feature (Stream order label)
Note: This is a colour plan and must be reproduced in colour.
VMGIS-NR-1142


Relevant Purpose Determination Plan
Plan of Area A (Parts A1 - A60) in Lot 1 on AP2418, Lot 167 on CP859402, Lot 13 on DS10, Lots 98 and 99 on DS186, Lot 41 on DS21, Lot 248 on LIV401036, Lot 102 on LN176, Lot 101 on LN351, Lot 115 on P4073, Lot 1 on PER4653, Lot 45 on PL4017, Lot 1 on RL5672, Lot 1 on RL6725, Lot 1 on RL8197, Lot 1 on RP601377, Lot 2 on RP601795, Lots 2, 3 and 6 on RP614228, Lot 3 on RP843225, Lot 131 on SP231040, Lot 1 on SP234061, Roads and Creeks
Version: 2
eLVAS Case ID: 2022/002389
RPDP
2022/002389
Sheet 5 of 8
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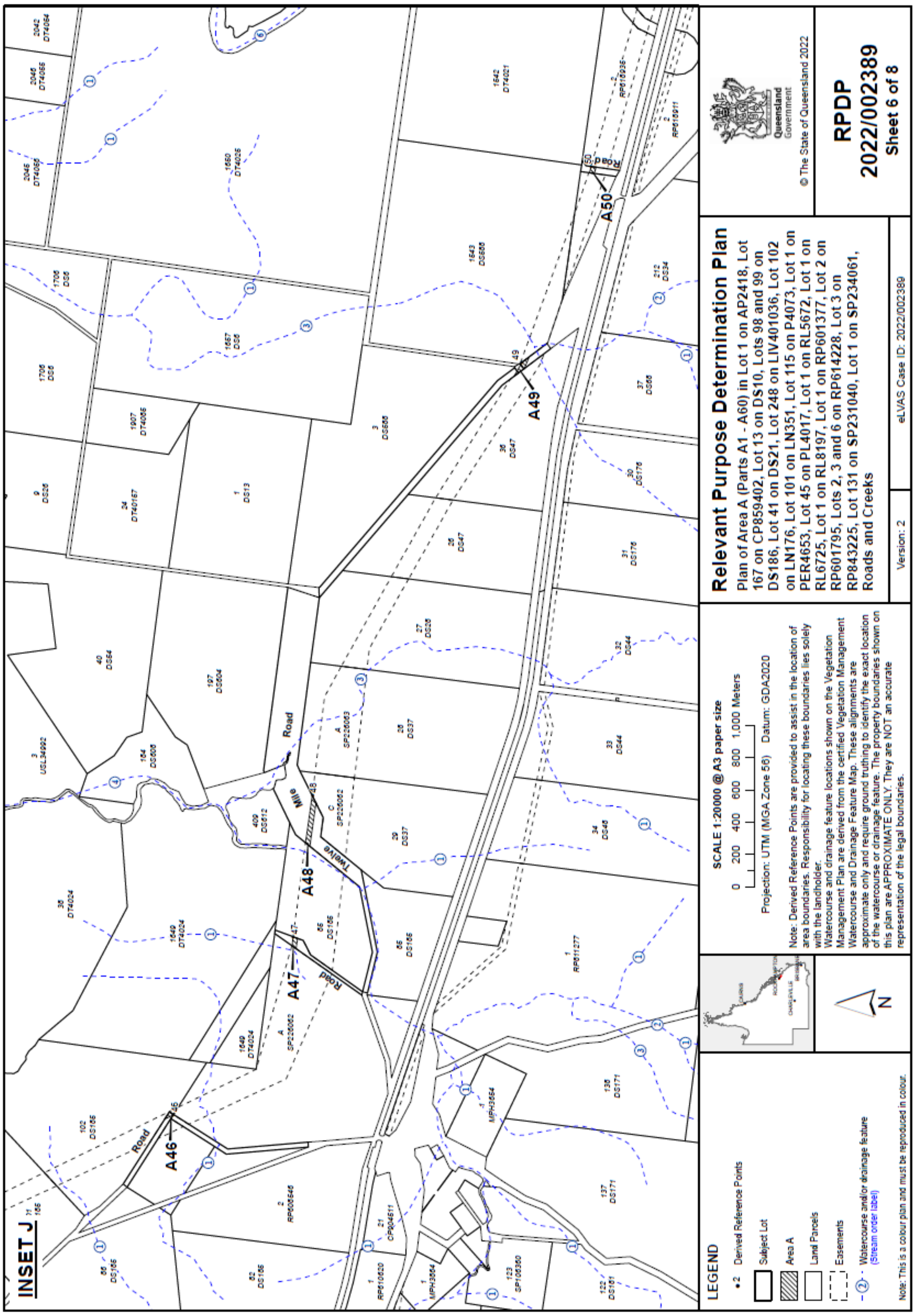
SCALE 1:20000 @ A3 paper size
0 200 400 600 800 1,000 Meters
Projection: UTM (MGA Zone 56) Datum: GDA2020
INSET H
INSET I
LEGEND
Derived Reference Points
Subject Lot
Area A
Land Parcels
Easements
Watercourse and/or drainage feature (Stream order label)
Note: This is a colour plan and must be reproduced in colour.
VMGIS-NR-1142
Toondal Port Alma Road
Bajool Port Alma Road
Inkerman Creek
A40
A41
A42
A43
A44
A45
1 AP2418
98 DS186
99 DS186
2 RP601795
1 RL8197


Relevant Purpose Determination Plan
Plan of Area A (Parts A1 - A60) in Lot 1 on AP2418, Lot 167 on CP859402, Lot 13 on DS10, Lots 98 and 99 on DS186, Lot 41 on DS21, Lot 248 on LIV401036, Lot 102 on LN176, Lot 101 on LN351, Lot 115 on P4073, Lot 1 on PER4653, Lot 45 on PL4017, Lot 1 on RL5672, Lot 1 on RL6725, Lot 1 on RL8197, Lot 1 on RP601377, Lot 2 on RP601795, Lots 2, 3 and 6 on RP614228, Lot 3 on RP843225, Lot 131 on SP231040, Lot 1 on SP234061, Roads and Creeks
Version: 2
eLVAS Case ID: 2022/002389
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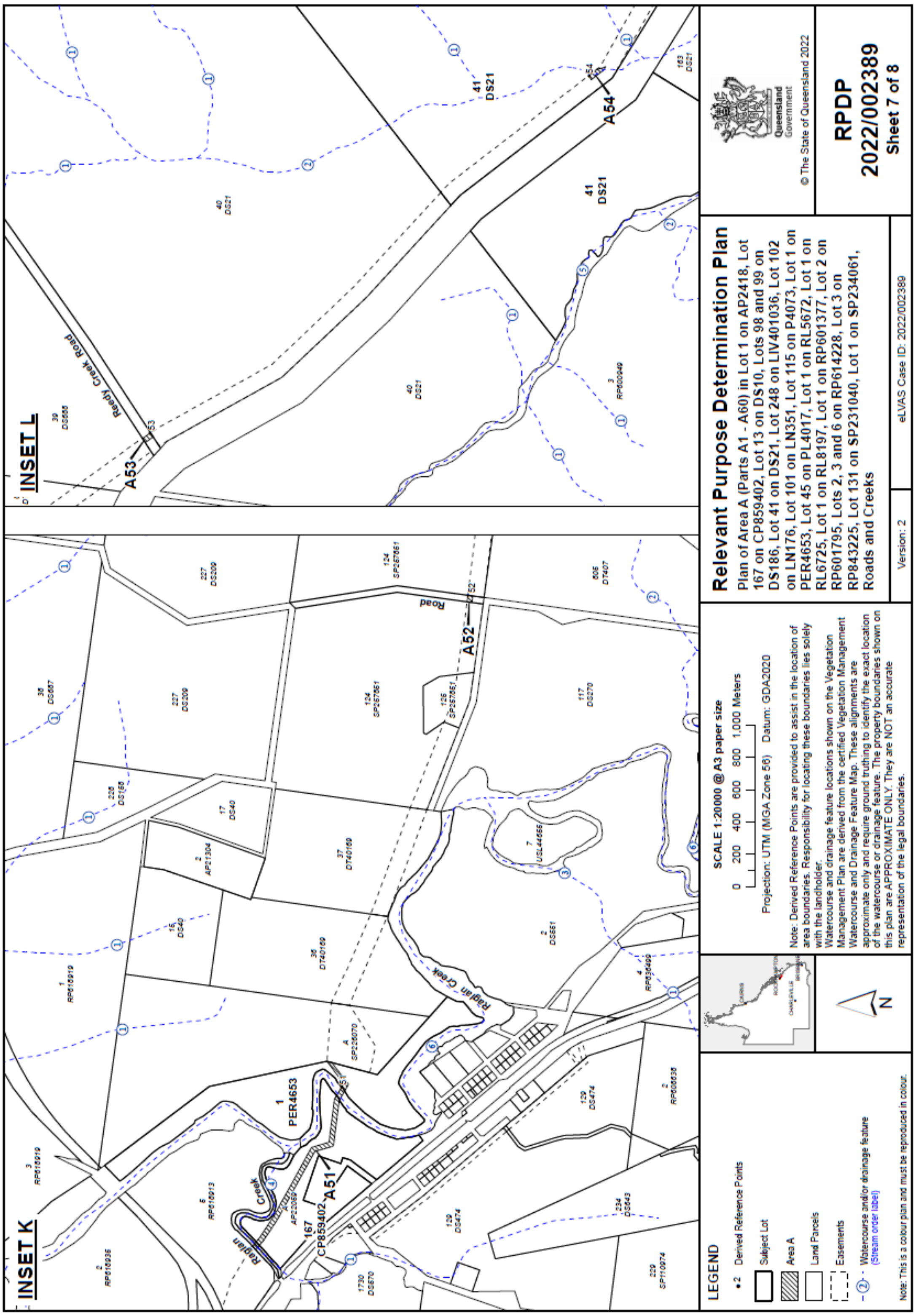
RPDP
2022/002389
Sheet 6 of 8
SCALE 1:20000 @ A3 paper size
0 200 400 600 800 1,000 Meters
Projection: UTM (MGA Zone 56) Datum: GDA2020
Note: Derived Reference Points are provided to assist in the location of area boundaries. Responsibility for locating these boundaries lies solely with the landholder.
Watercourse and drainage feature locations shown on the Vegetation Management Plan are derived from the certified Vegetation Management Watercourse and Drainage Feature Map. These alignments are approximate only and require ground truthing to identify the exact location of the watercourse or drainage feature. The property boundaries shown on this plan are APPROXIMATE ONLY. They are NOT an accurate representation of the legal boundaries.
LEGEND
Derived Reference Points
Subject Lot
Area A
Land Parcels
Easements
Watercourse and/or drainage feature (Stream order label)
Note: This is a colour plan and must be reproduced in colour.
VMGIS-NR-1142
INSET J
A46
A47
A48
A49
A50
Twelve Mile Road


INSET K
INSET L
Relevant Purpose Determination Plan
Plan of Area A (Parts A1 - A60) in Lot 1 on AP2418, Lot 167 on CP859402, Lot 13 on DS10, Lots 98 and 99 on DS186, Lot 41 on DS21, Lot 248 on LIV401036, Lot 102 on LN176, Lot 101 on LN351, Lot 115 on P4073, Lot 1 on PER4653, Lot 45 on PL4017, Lot 1 on RL5672, Lot 1 on RL6725, Lot 1 on RL8197, Lot 1 on RP601377, Lot 2 on RP601795, Lots 2, 3 and 6 on RP614228, Lot 3 on RP843225, Lot 131 on SP231040, Lot 1 on SP234061, Roads and Creeks
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eLVAS Case ID: 2022/002389
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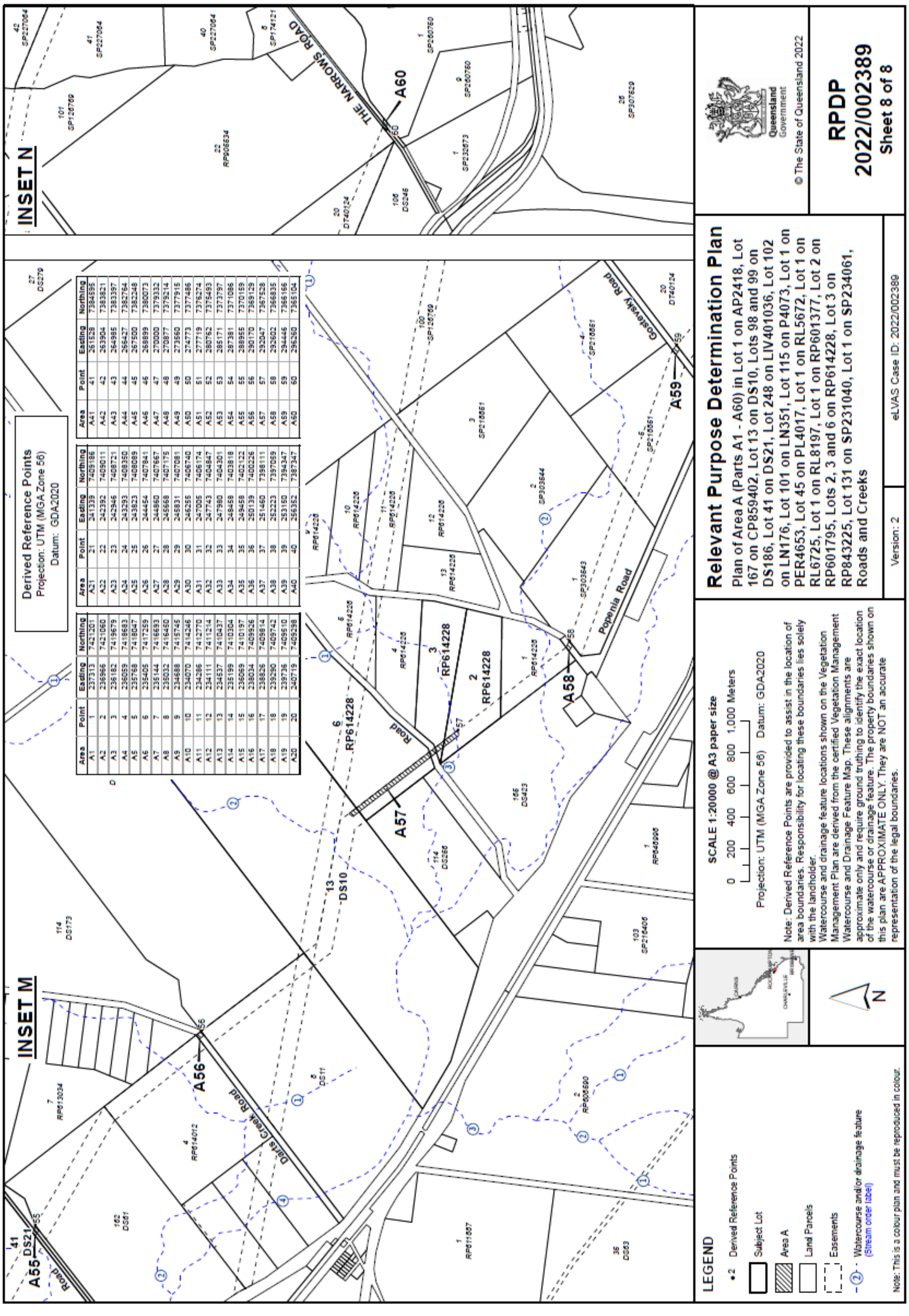
RPDP
2022/002389
Sheet 7 of 8
SCALE 1:20000 @ A3 paper size
0 200 400 600 800 1,000 Meters
Projection: UTM (MGA Zone 56) Datum: GDA2020
LEGEND
Derived Reference Points
Subject Lot
Area A
Land Parcels
Easements
Watercourse and/or drainage feature (Stream order label)
Note: This is a colour plan and must be reproduced in colour.
VMGIS-NR-1142
Raglan Creek
Reedy Creek Road
A51
A52
A53
A54
PER4653
CP859402
DS21


INSET N
INSET M
Derived Reference Points
Projection: UTM (MGA Zone 56)
Datum: GDA2020
Relevant Purpose Determination Plan
Plan of Area A (Parts A1 - A60) in Lot 1 on AP2418, Lot 167 on CP859402, Lot 13 on DS10, Lots 98 and 99 on DS186, Lot 41 on DS21, Lot 248 on LIV401036, Lot 102 on LN176, Lot 101 on LN351, Lot 115 on P4073, Lot 1 on PER4653, Lot 45 on PL4017, Lot 1 on RL5672, Lot 1 on RL6725, Lot 1 on RL8197, Lot 1 on RP601377, Lot 2 on RP601795, Lots 2, 3 and 6 on RP614228, Lot 3 on RP843225, Lot 131 on SP231040, Lot 1 on SP234061, Roads and Creeks
Version: 2
eLVAS Case ID: 2022/002389
RPDP
2022/002389
Sheet 8 of 8
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SCALE 1:20000 @ A3 paper size
Projection: UTM (MGA Zone 56) Datum: GDA2020
LEGEND
Derived Reference Points
Subject Lot
Area A
Land Parcels
Easements
Watercourse and/or drainage feature (Stream order label)
Note: This is a colour plan and must be reproduced in colour.
VMGIS-NR-1142
THE NARROWS ROAD
Poppenia Road
Gosterosky Road
Davis Creek Road
A55
A56
A57
A58
A59
A60
6 RP614228
3 RP614228
2 RP614228
13 DS10

Enclosure 4

ANNEXURE A – GENERIC REQUIREMENTS

The conditions contained in this Annexure have been compiled to assist persons (the applicant) intending to undertake work within the vicinity of high-voltage electrical installations and infrastructure owned or operated by Powerlink. The conditions are supplementary to the provisions of the Electrical Safety Act 2002, Electrical Safety Regulation 2013 and the Terms and Conditions of Registered Easements and other forms of Occupational Agreements hereinafter collectively referred to as the "Easement". Where any inconsistency exists between this Annexure and the Easement, the Easement shall take precedence.

1. POWERLINK INFRASTRUCTURE

You may not do any act or thing which jeopardises the foundations, ground anchorages, supports, towers or poles, including (without limitation) inundate or place, excavate or remove any soil, sand or gravel within a distance of twenty (20) metres surrounding the base of any tower, pole, foundation, ground anchorage or support.

2. STRUCTURES

No structures should be placed within twenty (20) metres of any part of a tower or structure foundation or within 5m of the conductor shadow area. Any structures on the easement require prior written consent from Powerlink.

3. EXCLUSION ZONES

Exclusion zones for operating plant are defined in Schedule 2 of the Electrical Safety Regulation 2013 for Untrained Persons. All Powerlink infrastructure should be regarded as "electrically live" and therefore potentially dangerous at all times.

In particular your attention is drawn to Schedule 2 of the Electrical Safety Regulation 2013 which defines exclusion zones for untrained persons in charge of operating plant or equipment in the vicinity of electrical facilities. If any doubt exists in meeting the prescribed clearance distances from the conductors, the applicant is obliged under this Act to seek advice from Powerlink.

4. ACCESS AND EGRESS

Powerlink shall at all times retain the right to unobstructed access to and egress from its infrastructure. Typically, access shall be by 4WD vehicle.

5. APPROVALS (ADDITIONAL)

Powerlink's consent to the proposal does not relieve the applicant from obtaining statutory, landowner or shire/local authority approvals.

6. MACHINERY

All mechanical equipment proposed for use within the easement must not infringe the exclusion zones prescribed in Schedule 2 of the Electrical Safety Regulation 2013. All operators of machinery, plant or equipment within the easement must be made aware of the presence of live high-voltage overhead wires. It is recommended that all persons entering the Easement be advised of the presence of the conductors as part of on site workplace safety inductions. The use of warning signs is also recommended.

ANNEXURE A – GENERIC REQUIREMENTS

7. EASEMENTS

All terms and conditions of the easement are to be observed. Note that the easement takes precedence over all subsequent registered easement documents. Copies of the easement together with the plan of the Easement can be purchased from the Department of Environment & Resource Management.

8. EXPENDITURE AND COST RECOVERY

Should Powerlink incur costs as a result of the applicant's proposal, all costs shall be recovered from the applicant.

Where Powerlink expects such costs to be in excess of $10 000.00, advanced payments may be requested.

9. EXPLOSIVES

Blasting within the vicinity (500 metres) of Powerlink infrastructure must comply with AS 2187. Proposed blasting within 100 metres of Powerlink infrastructure must be referred to Powerlink for a detailed assessment.

10. BURNING OFF OR THE LIGHTING OF FIRES

We strongly recommend that fires not be lit or permitted to burn within the transmission line corridor and in the vicinity of any electrical infrastructure placed on the land. Due to safety risks Powerlink's written approval should be sort.

11. GROUND LEVEL VARIATIONS

Overhead Conductors

Changes in ground level must not reduce statutory ground to conductor clearance distances as prescribed by the Electrical Safety Act 2002 and the Electrical Safety Regulation 2013.

Underground Cables

Any change to the ground level above installed underground cable is not permitted without express written agreement of Powerlink.

12. VEGETATION

Vegetation planted within an easement must not exceed 3.5 metres in height when fully matured. Powerlink reserves the right to remove vegetation to ensure the safe operation of the transmission line and, where necessary, to maintain access to infrastructure.

13. INDEMNITY

Any use of the Easement by the applicant in a way which is not permitted under the easement and which is not strictly in accordance with Powerlink's prior written approval is an unauthorised use. Powerlink is not liable for personal injury or death or for property loss or damage resulting from unauthorized use. If other parties make damage claims against Powerlink as a result of unauthorized use then Powerlink reserves the right to recover those damages from the applicant.

ANNEXURE A – GENERIC REQUIREMENTS

14. INTERFERENCE

The applicant's attention is drawn to s.230 of the Electricity Act 1994 (the "Act"), which provides that a person must not wilfully, and unlawfully interfere with an electricity entity's works. "Works" are defined in s.12 (1) of the Act. The maximum penalty for breach of s.230 of the Act is a fine equal to 40 penalty units or up to 6 months imprisonment.

15. REMEDIAL ACTION

Should remedial action be necessary by Powerlink as a result of the proposal, the applicant will be liable for all costs incurred.

16. OWNERS USE OF LAND

The owner may use the easement land for any lawful purpose consistent with the terms of the registered easement; the conditions contained herein, the Electrical Safety Act 2002 and the Electrical Safety Regulation 2013.

17. ELECTRIC AND MAGNETIC FIELDS

Electric and Magnetic Fields (EMF) occur everywhere electricity is used (e.g. in homes and offices) as well as where electricity is transported (electricity networks).

Powerlink recognises that there is community interest about Electric and Magnetic Fields. We rely on expert advice on this matter from recognised health authorities in Australia and around the world. In Australia, the Federal Government agency charged with responsibility for regulation of EMFs is the Australian Radiation Protection and Nuclear Safety Agency (ARPANSA). ARPANSA's *Fact Sheet – Magnetic and Electric Fields from Power Lines*, concludes:

"On balance, the scientific evidence does not indicate that exposure to 50Hz EMF's found around the home, the office or near powerlines is a hazard to human health."

Whilst there is no scientifically proven causal link between EMF and human health, Powerlink nevertheless follows an approach of "*prudent avoidance*" in the design and siting of new powerlines. This includes seeking to locate new powerline easements away from houses, schools and other buildings, where it is practical to do so and the added cost is modest.

The level of EMF decreases rapidly with distance from the source. EMF readings at the edge of a typical Powerlink easement are generally similar to those encountered by people in their daily activities at home or at work. And in the case of most Powerlink lines, at about 100 metres from the line, the EMF level is so small that it cannot be measured.

Powerlink is a member of the ENA's EMF Committee that monitors and compiles up-to-date information about EMF on behalf of all electricity network businesses in Australia. This includes subscribing to an international monitoring service that keeps the industry informed about any new developments regarding EMF such as new research studies, literature and research reviews, publications, and conferences.

We encourage community members with an interest in EMF to visit ARPANSA's website: www.arpansa.gov.au Information on EMF is also available on the ENA's website: www.ena.asn.au

Guideline to PIPELINE Design and Construction within Powerlink Corridors and surrounding Powerlink Infrastructure

CONTENTS

OVERVIEW

The following document details a list of standard issues that require consideration when designing and constructing pipelines adjacent to, or within Powerlink corridors and around Powerlink infrastructure. This document highlights issues for consideration but is by no means exhaustive in detail. Powerlink requests that it be used as a guide only and that the applicant seek independent expert advice in relation to any matters and where appropriate provide information to Powerlink to show that they have been addressed. All proposed alignments and final designs will require submission to Powerlink for approval.

Please note that as per Annexure A of Powerlink's Co-use Guideline, Powerlink reserves the right to recover its costs resulting from an applicant's proposal, both in terms of costs incurred to assess the application as well as any other loss resulting from the works being carried out.

1. PIPELINE DESIGN

1.1. ALIGNMENT CONSIDERATIONS

The following points provide guidance for Powerlink preferences regarding pipeline design adjacent to and within easements, corridors and surrounding Powerlink infrastructure.

1.1.1. Easement Terms and Conditions

All terms and conditions of the registered easement dealing are to be observed and complied with as part of the overall development process (investigation, design, construction, etc).

1.1.2. Powerlink Access

If pre-existing on or off easement access to Powerlink infrastructure is obstructed by a proposal (e.g. above ground pipeline, canal, etc.), an alternative means is to be provided by the applicant that is suitable for use by vehicles up to and including a 100-tonne crane.

All proposed underground pipelines must also be adequately protected (depth, compaction, wall thickness, etc) so as not to inhibit Powerlink's on and off easement access, suitable for use by vehicles up to and including a 100-tonne crane.

1.1.3. Pipeline Crossings of Powerlink Corridors

- Powerlink requires a minimum separation between pipelines and the extents of the base of structures of at least 20 metres. Metallic pipelines will additionally need to comply with separation requirements as governed by compliance with AS4853 (*Electrical Hazards on Metallic Pipelines*).
- The angle of a crossing should preferably be from 45 degrees to 90 degrees and fall within the nearest thirds of the length of a span to towers, where clearances are normally greater;
- All proposed underground services within easements shall require ground markers acceptable to Powerlink. These are to be installed at all entry and exit points to the easement and generally every 25 metres as a minimum, and at every change of direction over the easement area;
- Where an underground service crosses within a Powerlink corridor, the installation of corrosion-free sleeves may be required to allow for future installation of underground Powerlink cables. Consultation with Powerlink will be necessary regarding specific requirements where this is deemed necessary.

1.1.4. Parallel Alignments

Powerlink's strong preference is that parallel alignments be situated off or adjacent to its alignment corridors and easements. In specific circumstances where there is no alternative, Powerlink may consider consenting to parallel co-use partially within the transmission line easements; such overlap will be limited to a maximum of 5 metres from the boundary of the easement or corridor, including any part of the pipeline or ancillary equipment and any easement taken for the pipeline. This distance allows reasonable maintenance access to Powerlink in the alignment corridor and provides sufficient space for the upgrading of transmission lines. Both this requirement, and the 20 metre separation distance from any part of its structures, will need to be adhered to in these specific circumstances. In the event of a proposed metal pipeline parallel to the transmission lines, provision must be made for the pipeline to be adequately earthed at calculated intervals, or less (see section 1.2 of this document for further information).

1.2. ELECTRICAL SAFETY IN DESIGN

There are a number of design issues that should be addressed to ensure the safety of staff working on any proposed metallic pipeline. The following discussion points highlight some issues but are not intended to provide technical recommendations or advice on mitigation of these issues. The applicant is to seek independent expert advice in relation to these matters and where appropriate provide information to Powerlink to show that they have been addressed.

1.2.1. Inductive Coupling

It is possible that in the event of a fault occurring on the transmission line, a "touch voltage" greater than that permitted by AS4853 may be induced in the pipeline. There are several possible technical solutions to mitigate this problem, such as the installation of isolation joints or protecting accessible parts of the pipelines and ancillaries with some form of earth mat/faraday cage/grading ring in order to reduce the touch voltage for personnel.

1.2.2. Earth Potential Rise

During a line fault or a lightning strike to a tower, a significant proportion of the fault or lightning current can run down tower legs and raise the potential of the surrounding ground. For a coated pipe, its voltage during the fault can remain relatively unchanged due to its insulating coating. However, if there are access points or pipe ancillaries in close proximity to the tower a dangerous condition is possible. The ground rises to a high potential and the pipeline remains approximately at a remote earth potential, which can result in a fatal touch voltage. Therefore, there should be no accessible ancillaries within a 150 metre radius of our towers. Where there is no alternative to ancillaries being required within this zone, earth mats and grading rings shall be installed to reduce touch voltages.

1.2.3. Cathodic Protection

Powerlink will not consent to impressed current cathodic protection systems being installed in close proximity to our transmission structure. Problems can arise when anode beds (of a sacrificial magnesium anode system) are in close proximity to towers, as the presence of overhead earthwires will conduct the injected current from anode beds away from the pipeline and into those earthwires. The flow of current off our structures at a remote tower will eventually cause corrosion of the transmission structure foundations. Anode beds must be a minimum of 150 metres from any Powerlink structure.

1.2.4. Pipeline Coating

When pipelines are in close proximity to Powerlink's transmission towers and there are significant lengths of parallel run; considerable voltage stresses can be put on pipeline coatings. As mentioned above, an induced voltage is possible during an unbalanced fault. At a distance of about 20 metres from the tower where the proposed pipeline is likely to be situated, it is possible that the earth potential can rise with respect to remote earth. For a

parallel pipeline, the pipeline will simultaneously be subjected to the earth potential rise and the induced voltage. In most cases, these voltages are additive, meaning a dangerous and damaging voltage is possible. The coating must be capable of withstanding such voltage stresses.

2. PIPELINE CONSTRUCTION

2.1. ELECTRICAL SAFETY IN CONSTRUCTION

2.1.1. Exclusion Zones

Your attention is drawn to the *Electrical Safety Regulation 2013* which defines 'exclusion zones' for work in the vicinity of electrical facilities. Particular attention is to be paid to Schedule 2 - Exclusion Zones for Exposed Parts for Untrained Persons and for Operating Plant and Vehicles Operated by Untrained Persons.

All operators of machinery within the easement are to be made aware of the presence of live high voltage overhead wires.

2.1.2. Storage and/or handling of metallic items

For the storage and/or handling of metallic pipes or other metallic items of lengths greater than 3 metres, adequate warning signs and procedures should be in place to maintain the required statutory clearances.

2.1.3. Capacitive Coupling

During pipeline construction, capacitive coupling between overhead lines and ungrounded metallic items (such as vehicles with rubber tyres and sections of pipes on wooden supports) may result in a potentially lethal energisation of these structures. These voltages may be mitigated with the use of temporary simple grounding installations such as earth stakes.

2.2. ACCESS

For pipelines situated adjacent to a (or in special circumstances within) Powerlink easement where there is a strong possibility that Powerlink access tracks will be used, it will be required that the proponent sign an Operation Agreement with Powerlink addressing the operational and maintenance aspects of the ongoing relationship and responsibilities between the parties.

2.2.1. Powerlink access during construction

Powerlink access to transmission infrastructure shall not be impeded during or after the construction phase of a project. Areas of particular concern include where the installation crosses the Powerlink easement and/or the existing access tracks. The use of Powerlink gates can also be a problem if not left secure (e.g. security, stock concerns etc.).

2.2.2. Environmental Management

Where any works (including access) occur in any part of a Powerlink easement we require that environmental issues be addressed through sufficient evidence of management procedures (erosion and sediment control, weed/pest management, etc.) and suitable rehabilitation to a standard acceptable by Powerlink.

2.2.3. Cultural Heritage

In the event of a Cultural Heritage survey being carried out, Powerlink requires that information relating to the discovery of Cultural Heritage material during survey or construction and any subsequent action taken or recommended to be taken, be disclosed to Powerlink.

2.2.4. Access track reinstatement

In areas likely to be crossed by Powerlink vehicles, backfill material in any excavation shall be compacted in 150 millimetres maximum thickness layers to 95% of its maximum dry density as determined by the standard compaction test - AS 1289.5.1.1.

2.3. INVESTIGATION AND CONSTRUCTION WORKS

Throughout all phases of preliminary investigation and construction works (e.g. geotechnical drilling, bulk earthworks, etc.) within Powerlink easements or corridors and surrounding Powerlink infrastructure, the following conditions are to be adhered to:

- The required statutory ground clearances as per the *Electrical Safety Regulation 2013* shall be maintained at all times;
- The subsoil stability and surface drainage in the vicinity of structures shall not be adversely affected;
- Excessive quantities of dust shall not be generated;
- Environmental Controls and Procedures shall be established as per section 2.2.2 of this document;
- Powerlink shall be advised of any culturally significant finds as per section 2.2.3 of this document;
- An easily accessible working area of a minimum of 20 metres from any face of a tower shall be maintained at all times.

2.4. BLASTING AND/OR USE OF EXPLOSIVES

Blasting and/or use of explosives can occur provided that:

- Satisfactory safety procedures are observed;
- The safe operation of the line is not jeopardised;
- Blasting procedures are carried out in accordance with AS 2187;
- Blasting mats and safety fuses are used;
- Generally no blasting will be allowed within 100 metres of a power line structure;
- Blasting in close proximity (within 500 metres) to Powerlink's overhead transmission lines or substations should meet the following precautions:
  - a blasting plan is submitted;
  - a Peak Particle Velocity (PPV), not to exceed 100 millimetres per second for power line structures and 50 millimetres per second (should be as per AS 2187) for buildings;
  - a seismic control device is set up to record the readings;
  - ensure fly rock air blast control by means of adequate matting;
  - in the interest of air blast control, only single shot blasting shall be allowed.
- Powerlink may require to have a monitor on site, for which it will charge appropriately for the Powerlink Queensland monitor's time on the site during blasting operations;
- Powerlink reserves the right to withdraw its consent if, in its opinion, the blasting process becomes hazardous and likely to result in power interruptions;
- At least seven days prior notice of the commencement of blasting. This allows time for arrangements to be made for monitoring of and/or precautionary instructions to be issued in terms of the blasting operation.