

21 January 2019

APA Ref: 441941
Council Ref: DA-291/2018

Joanne Tarbit
Griffith City Council
PO Box 485
Griffith NSW 2680

EMAIL OUT: admin@griffith.nsw.gov.au

Dear Joanne,

RE: Lots 140-141 on DP751709, 41 Bob Irvin Road, Yoogali
DA-291/2018 (Construction of 15MW Solar Farm)

Thank you for your notification of the above Development Application involving construction of a 15MW Solar Farm at 41 Bob Irvin Road, Yoogali (Lots 140-141 on DP751709).

APA Group (APA) is Australia's largest natural gas infrastructure business and has direct management and operational control over its assets and investments. APA's gas transmission pipelines span across Australia, delivering approximately half of the nation's gas usage. APA owns and operates over 15,000 km's of high pressure gas transmission pipelines across Australia.

APA's Junee to Griffith Lateral runs through the northern portion of the subject site. APA is the owner and operator of the Junee to Griffith Lateral (see Table 1 for details):

Table 1: Transmission gas pipelines in the area of consideration

Pipeline	Pipeline Licence	Easement Width (m)	Diameter (mm)	Measurement Length (m)
Junee to Griffith Lateral	PL20	20	150	165
Note: measurement length is applied to either side of the pipeline.				

APA's Role

As a Licensee under the *Pipelines Act 1967*, APA is required to operate pipelines in a manner that minimises adverse environmental impacts and protects the public from health and safety risks resulting from operation of our high pressure gas transmission pipelines (HPGTP). Once a HPGTP is in place, APA is required to constantly monitor both the pipeline corridor and also a broader area within which we are required to consider land use changes and development and to assess what such changes means to the risk profile of the HPGTP.

APA has a number of responsibilities and duties to perform under a complex framework of legislation, standards and controls across Federal, State and Local Government landscapes. In particular, the *Pipelines Act 1967*, cites Australian Standard 2885 (AS2885) as a mandatory safety standard for the design, construction, operation and maintenance of transmission pipelines. In discharging our regulative responsibilities, APA needs to continuously review what is happening around its assets, what land use changes are occurring and what development is taking place to ensure it remains in a

position to comply with applicable operational and safety standards and legislation whilst meeting its commercial obligations and imperatives.

Pipeline Risk Profile and the Measurement Length

In managing HPGTP's and considering land use changes, APA must focus on that area geographically defined by AS2885 as the Measurement Length (ML). The ML area is the heat radiation zone associated with a full-bore pipeline rupture. APA is mandated to consider community safety in the ML due to the high consequences of pipeline rupture to life, property and the economy.

The ML is determined by the design criteria of the pipe (driven by the surrounding environment at the time of construction) and the Maximum Allowable Operating Pressure (MAOP) of the pipe. APA must consider any changes of land use within the ML area to determine the effect of a new use on the risk profile of the pipeline.

For reference, the ML of the Junee to Griffith Lateral is 165m. Note that the ML is a radial dimension, and therefore applies to both sides of the pipe.

Safety Management Study

AS2885 requires a Safety Management Study (**SMS**) to be undertaken whenever the land use classification of land within the ML. The purpose of an SMS is to assess the risk associated with a change in land use, including both construction risks and ongoing land use risks. The SMS will also develop appropriate controls to reduce risks to 'as low as reasonably practicable' (ALARP). In this case, the development is not changing the existing surrounding land use, and therefore an SMS is not required.

Easement Management

APA is the beneficiary of a pipeline easement in which the Junee to Griffith Lateral is located. To ensure compliance with the safety requirements of AS2885, APA needs to ensure our easement is managed to an appropriate standard. This includes:

- Ensuring the easement is maintained free of inappropriate vegetation and structures.
- Place warning signs at various mandated points along the pipeline route, including any change in property description/boundaries.
- Maintain a constant line of sight between warning signs.
- Undertake physical patrols and inspections of the easement.

APA will not accept outcomes that do not enable us to achieve our safety responsibilities to the surrounding community.

Any works within the easement must be approved by APA through our Third Party Works Authorisation process. This process will ensure all works are undertaken in a safe manner that does not physically impact on the pipeline. If you are seeking to undertake works on property containing a pipeline, or are seeking details on the physical location of the pipeline, please contact Dial Before You Dig on 1100 or APA directly at APAProtection@apa.com.au.

Proposed development

Proposal Plans

The proposal plan (Drawing No. DEV-01-C-120, Rev 02) indicates a minimum separation distance of 5 metres between the development footprint and APA's pipeline and easement. However, APA's infrastructure is not accurately labelled as a "high pressure gas transmission pipeline", nor is there a specific consideration of the HPGTP within the Statement of Environmental Effects. All plans associated with this development must include the gas easement so that construction workers, and associated contractors are aware of the gas pipeline and its location.

Landscaping

The proposal plan also indicates landscaping is to be located within the HPGTP easement. APA will not accept landscaping on the easement as it has the potential to impact on the pipeline's integrity and inhibit the ability for APA to manage and maintain the HPGTP easement. Any landscaping considered as part of this proposal, should be submitted to APA for consideration.

Security Perimeter Fencing

Security perimeter fencing appears to be located along the southern edge of the HPGTP easement. However, if the proposed fencing is intended to be located on the HPGTP easement, APA will not accept this outcome given the extent of land available to site structures and other improvements.

Intersection Upgrades / Heavy Vehicle Crossings

It is understood that the proposed development will involve an upgrade of Irrigation Way / Bob Irvin Road. The HPGTP crosses Bob Irvin Road approximately 40 metres from the subject intersection. APA will need to undertake coating and depth checking prior to any upgrade, and may include calculations with regard to heavy vehicles crossing the HPGTP at this road. Any works on the HPGTP easement during the upgrade of the road and construction proposal for the road will require APA approval and supervision. APA will require details on the heavy machinery types, weights, and other weight loadings prior to any heavy vehicle crossings of the HPGTP.

Electrical Interference

Given the nature of the development, it is considered likely that an earthing system will be required which can present an Earth Potential Rise (EPR) issue for APA's Junee to Griffith pipeline with our cathodic protection test point located on Bob Irvin Road.

Electrical works in the vicinity of the pipeline (including crossings) have the potential to impact on the pipelines safe operation and studies in accordance with AS4853 are necessary. There are specialist consultants who can complete the necessary studies/modelling. The cost of these studies and any necessary mitigations must be borne by the development proponent.

The proposed development will not change the location class of the pipeline. Standard conditions are required to ensure any works near the easement do not impact on the pipeline.

Comments

On the basis of the information provided, APA does not object to the proposed development subject to the following conditions being included with any approval issued for the proposal:

Conditions of Approval

1. No Improvements within Easement

Buildings, structures, roadway, pavement, pipeline, cable, fence, on-site waste water treatment (or irrigation area), or any other improvement on or under the land within the gas transmission pipeline easement must not be constructed without prior consent in writing from APA. No

structure or vegetation will be permitted on the easement that prohibits maintenance of line of sight along the pipeline easement.

2. Landscape Plans

Prior to the development commencing, landscape plans depicting any planned landscaping, including the planting of vegetation, species details, surface treatments, furniture, structures or improvements within three metres of the pipeline must be submitted to and approved by APA, in addition to any approval required by the assessment manager. A three metre minimum clearance between the pipeline and any vegetation with a mature height greater than 0.5 metres must be maintained.

3. Third Party Works Authorisation

Prior to the commencement of any works within the gas transmission pipeline easement, the proponent must provide detail of the proposed works to APA, and seek an authorisation third party works approval from APA. No works within APA's easement are permitted without the prior authorisation of APA. Works within the easement must comply with any conditions attached to a third party works approval.

4. Construction Management Plan

Prior to the commencement of any works, including demolition, on land within 50 metres of the pipeline easement, a construction management plan must be submitted to and approved by APA. The plan must:

- Prohibit the use of rippers or horizontal directional drills unless otherwise agreed by the operator of the gas transmission pipeline.
- Avoid significant vibration, heavy loadings stored over the pipeline and heavy vehicle / plant crossings of the pipeline within the easement.
- Be endorsed by the operator of the gas transmission pipeline where the works are within or crossing the relevant gas transmission easement.

5. Heavy Vehicle Crossings / Intersection Upgrade Engineering Plans Required

Prior to development commencing, detailed engineering plans for any proposed heavy vehicle crossings and intersection upgrades over the high pressure gas transmission pipeline must be submitted to APA. No works are permitted without the prior consent of APA.

6. Risk Assessment Required

Prior to the development commencing, and to inform detailed design, the applicant must conduct electrical hazard studies in accordance with (the requirements of) Australian Standard 4853-2012 (for Low Frequency Induction and Earth Potential Rise). The applicant must address any relevant requirements and any recommendations and/or actions must be implemented to the satisfaction of APA. All costs associated with the study, and implementing its recommendations and/or actions are to be borne by the applicant. The applicant must complete validation testing upon completion of construction.

7. Electrical Interference Studies

The applicant must conduct electrical interference studies in accordance with the requirements of AS2832 once detailed design is complete.

8. Amend Design to Comply with Australian Standards

The applicant must amend its design as required in order to obtain results for the electrical interference studies and electrical hazard studies which comply with the applicable Australian Standard and promptly provide a copy of the studies and reports to APA.

9. High Voltage Powerlines

The applicant must make good (at the applicant's cost) any hazards or risks to the APA Pipeline (including cathodic protection systems), caused by any powerlines.

10. Services

The design of any infrastructure services to the proposed shed shall minimise encroachment on the gas pipeline easement. Any application for an APA permit for an easement crossing will be required to demonstrate that an alternative route, avoiding the easement, is not feasible.

11. Easement Delineation On Site

During construction, the boundary of the easement must be clearly delineated on site by temporary fencing (or other means as agreed by APA), and clearly marked as a hazardous work zone/ restricted area.

12. Easement Delineation On Plans

All plans which include the area of the gas pipeline easement must have the easement clearly identified with hatching on the full width of the easement. The easement must also be clearly labelled as *'high pressure gas pipeline easement – no works to occur without the prior authorisation of the pipeline operator'*.

13. Pipeline Operator Access

The ability of the pipeline operator to access the easement must be maintained at all times to facilitate prompt maintenance and repairs. This may be through interlocking padlocks so APA has keyed access at any time. APA field officers will undertake any necessary site induction to facilitate unaccompanied access.

Note

If you are planning on undertaking any physical works on property containing or proximate to a pipeline, or are seeking details on the physical location of a pipeline, please contact Dial Before you Dig on 1100 or <https://www.1100.com.au/>, or APA directly on APAprotection@apa.com.au.

Note

An early works agreement from APA is required for any assessments/approvals that require greater than 3 days assessment or supervision. Lead in times for agreements can be up to 12 weeks. Please contact APA at APAprotection@apa.com.au or 1800 103 452.

Note

Any improvements within the transmission gas pipeline easement undertaken by third parties is at the risk of the proponent who will remain liable. APA will not be liable for any costs associated with the reinstatement of any vegetation and/or infrastructure constructed on the easement.

APA does not seek to unnecessarily inhibit future development proximate to our assets and is happy to work with Council and development proponents to achieve mutually acceptable and compliant outcomes. Any interested parties are strongly encouraged to contact APA early to discuss the process of integrating APA assets into future developments.

Should you wish to discuss the contents of this correspondence, or have any further queries, please contact me on 07 3223 3385 or the Infrastructure Planning & Protection team at planningnsw@apa.com.au.

Yours faithfully,

A handwritten signature in dark ink, appearing to be 'B. Setchfield', with a long horizontal stroke extending to the right.

Ben Setchfield
Senior Urban Planner
Infrastructure Planning and Protection