



28 September 2022

Mr Stephen O'Donoghue  
Director, Resource Assessments  
Department of Planning and Environment

## Kurri Kurri Lateral Pipeline Project update

Dear Stephen,

APA Group is pleased to provide an update on the Kurri Kurri Lateral Pipeline Project (KKLP – the Project).

Since submission of the KKLP Environmental Impact Statement (EIS) during March 2022, APA has continued to consult with directly affected landholders, and stakeholders more broadly. Ongoing consultation has led to several design refinements, as normally occurs during development of gas transmission pipelines and linear infrastructure generally.

Key design refinements are the movement of the JGN offtake facility to the eastern side of Lenaghans Drive, an adjusted transmission pipeline alignment either side of Buchanan Road and a refined footprint for the storage pipeline. Several other minor refinements are also proposed.

A description of each design refinement is provided in Attachment 1. A comparison of the Project design presented in the EIS and the amended design is provided in Attachment 2.

Two alignment options for the transmission pipeline remain under consideration for Lot 1 DP1260203, proposed for the Broaden Management industrial estate directly south of John Renshaw Drive. These options are as described in Section 5.3.1.2 of the EIS. To enable the differences in impacts between these two options to be compared, when combined with the remainder of the Project design, they are referred to in this letter as the '*amended design*' and the '*amended design - Broaden alternative*'. The *amended design* is the alternative option presented in Section 5.3.1.2 of the EIS, and as such provides a conservative worst-case scenario given it requires additional 800m of pipeline length. Consultation with the landholder (Broaden Management) is ongoing and recent discussions suggest that the *amended design - Broaden alternative*, as presented as the base case in the EIS, will be selected for the final design.

A comparison of key metrics for the EIS design, *amended design* and *amended design - Broaden alternative* are provided in Table 1.

No material environmental impacts beyond those contemplated in the EIS are expected as a consequence of the proposed design refinements for the amended design. Rather the refinements result in generally a similar degree of environmental impact for key criteria, as estimated in Table 1 below.

**Table 1. Comparison of key criteria for the EIS design and amended design**

<b>Criteria</b>	<b>EIS</b>	<b>Amended design</b>	<b>Amended design - Broaden alternative</b>
Length of transmission pipeline alignment (km)	20.1	21.1	20.3
Total disturbance footprint (ha)	103	106	104
Estimated native vegetation impacted (ha)	65	65	64
Estimated threatened ecological communities impacted (ha) - BC Act	60	61	60
Estimated threatened ecological communities impacted (ha) – EPBC Act	1.1	1.2	1.2
Residences likely to experience ‘highly intrusive’ noise during standard hours pipeline construction	1	3	3
Residences where air quality amenity criteria (PM10) likely to be exceeded during construction with Level 2 watering	0	0	0
Directly affected landholders	18	19	19

APA proposes to present the design refinements described in this letter to the DPE for assessment as an Amendment Report, submitted in conjunction with the Submissions Report. Both the *amended design* and the *amended design - Broaden alternative* will be presented in the Amendment Report.

If you require any further information, please do not hesitate to contact the undersigned ([trent.williams@apa.com.au](mailto:trent.williams@apa.com.au)) or Tom Hatfield ([tom.hatfield@apa.com.au](mailto:tom.hatfield@apa.com.au)).

Yours sincerely



Trent Williams

**Access and Approvals Manager - KKLP  
Infrastructure Planning and Approvals**

## Attachment 1 – Design refinements

Proposed design refinements are discussed and shown below. For comparison, the transmission pipeline alignment presented in the EIS is shown in the images below as a yellow dashed line.

### JGN Offtake Facility

The KKLP EIS presented the JGN offtake facility on the western side of Lenaghans Drive (Lot 51 DP1158920) based on favourable consultation with the landholder. Ongoing negotiations with the landholder have, however, been unable to reach an agreement for locating the offtake facility on this property. As such, discussions with adjacent landholders have been undertaken with a view to locating the offtake facility on a nearby landholding.

APA have subsequently reached in-principle agreement with the landholder on the eastern side of Lenaghans Drive (Lot 453 DP 807778) for locating the JGN offtake facility with the proposed location shown below. This landholding hosts the Sydney to Newcastle Pipeline and remains proposed for the short section of interconnecting pipeline between the SNP and JGN delivery facility.

The proposed location is approximately 70m from the EIS location at its' closest point. Access to the proposed location will be either through the affected landholding or the landholding to the north. Positive discussions have been held with the landholder to the north (Lot 4512 DP573791) and it is likely that the access track will be constructed on this lot.

The JGN offtake facility and JGN delivery facility (to be owned and operated by Jemena) will continue to be co-located. The area encompassing both facilities is proposed to be freehold land to be owned by APA following planning and pipeline licensing approval. The JGN delivery facility (to be owned and operated by Jemena) will be within an easement overlapping the APA owned land.

To achieve efficiencies during construction, APA now proposes to complete civil earthworks and foundations for the access road,

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construction pad and laydown areas for both facilities, likely using a single construction contractor. As such the construction footprint of both facilities will be assessed in the Amendment Report. Jemena will retain responsibility for the subsequent construction, commissioning and operation of the JGN delivery facility.



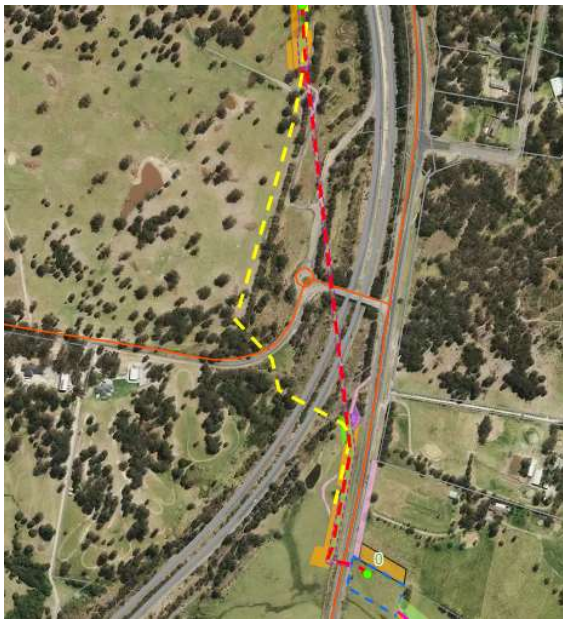
An emergency venting apparatus for the offtake facility, as described in section 2.3.4.1 of the EIS, is proposed to be located between offtake facility and the Sydney to Newcastle pipeline. The venting apparatus will be co-located with the short section of transmission pipe connecting to the Sydney to Newcastle pipeline, which will be constructed and operated by Jemena.

Environmental impacts are considered to be generally equivalent with those presented in the EIS, given the proposed locality is 70m from the original locality at the closest point, on land with a similar long term grazing land use. Noise impacts to nearby residences has been assessed using updated sound emission data from vendors, and compliance with the relevant night-time noise criteria is achievable at the nearest residence assuming worst case meteorological conditions and a low frequency penalty as per the Noise Policy for Industry.

The proposed location is adjacent to a third order watercourse, however at this location the watercourse is a constructed drain. A revised flooding assessment demonstrates that the offtake facility can be located above the 1% AEP level.

### **M1 and Lower Hunter Freight Corridor crossing**

Alignment options for crossing the M1 and Lower Hunter Freight Corridor (LHFC) are described in Section 5.3.1.2 of the EIS. Consultation with TfNSW has been ongoing since EIS submission and in principle agreement has been reached to progress the Option 2 design crossing using a horizontal direction drill (HDD). The environmental impacts of Option 2 are generally reduced relative to the base case alignment presented in the EIS through the use of HDD rather than horizontal boring and open trenching. An assessment of environmental impacts of crossing options are outlined in Section 5.3.1.2 of the EIS.



To the north of the HDD exit point, the construction footprint for the transmission pipeline has been shifted to the west by 5m to avoid all direct impacts to Lot 50 DP881157. This lot is a conservation zone created during construction of the M1 for Aboriginal cultural heritage.

To facilitate the HDD, a stringing area to construct the welded pipeline to be pulled back through the borehole is required. The stringing area is required to be aligned with the HDD angle, and so will extend north from the construction right of way near KP1.2.



### **Broaden Management Industrial Estate**

The alignment alternative proposed in Section 5.3.1.2 of the EIS for the Broaden Management Industrial Estate remains under discussion with the landholder and has been conservatively adopted as the worst-case base case for the Amendment Report. This adds around 800m of additional length of the transmission pipeline. Discussions with the landholder regarding use of the alignment presented as the base case in the EIS are ongoing. Both options will be presented in the Amendment Report.



### **Crossing of John Renshaw Drive and entry to Donaldson open cut mine**

Ongoing consultation with the landholder and mine operator (Donaldson Coal Pty Ltd) has refined the alignment for the transmission pipeline where it enters Lot1392 DP1126633, directly north of John Renshaw Drive. This modification involves the changing the angle of the HDD of John Renshaw Drive so that it exits further west onto the bench of an existing mining pit.

This refinement enables direct impacts to vegetation established for at least 13 years as part of mining rehabilitation activities to be avoided. The proposed alignment also eliminates a bored crossing of the Hunter Water Corporation Chichester Trunk Gravity Main (CTGM). The CTGM passes through two culverts adjacent to the bored crossing, where crossed by mine access roads. Further biodiversity surveys have located a population of the Southern Myotis (BC Act - vulnerable) using these culverts for roosting. By eliminating the bored crossing of the CTGM, disturbance to bats roosting in the culverts is also reduced.

Environmental impacts are reduced by this modification.



### **Area north of existing mines administration building**

Detailed survey investigations have located numerous buried services (water and telecommunications) within the EIS construction footprint for around 700m north of the existing administration building for the Donaldson and Abel mines. It is proposed to move the construction footprint 25m to the west so that most services are avoided.

Environmental impacts for this minor refinement are commensurate with those presented in the EIS. Biodiversity impacts are comparable given the same vegetation communities and habitat types are affected. Cultural heritage surveys have been conducted with no artefacts or areas of PAD located. The crossing of Four Mile Creek shifts slightly upstream and will remain as a special crossing.



### **Mine haul road**

Minor amendment to follow the existing mine haul road for around 300 m near KP 10.4, rather than remaining adjacent to a Hunter Water trunk main. Amendment made at the request of the mine operator (Bloomfield). Environmental impacts for this minor refinement are commensurate with those presented in the EIS



### Buchanan Road - East

APA has held ongoing discussions with the landholder (Ashtonfields) regarding the positioning of the alignment between approximately KP11.0 and Buchanan Road. The key constraints for the transmission pipeline alignment in this area are existing residential areas immediately north of Lot 1 DP 1045723, old underground mine workings, remnant vegetation, and potential residential development following completion of mining operations.

The preference of the landholder is for the alignment to follow Hunter Water trunk mains to the north-west, then the northern and western boundaries of Lot 1 DP 1045723. No new landholders are directly affected by this option, as shown in the figure below.

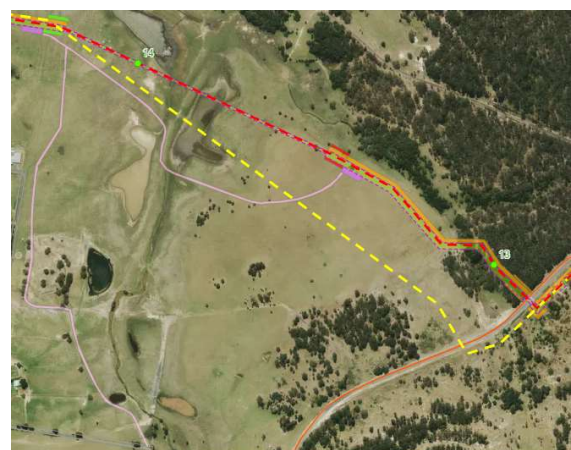


### Buchanan Road - West

Further discussions with the landholder (Ashtonfields) and mining lease holder (Bloomfield) have sought to refine the EIS alignment between Buchanan Road and Buttai Creek. Key constraints in this area are old underground mine workings, partially rehabilitated coal fines stockpiles and dams from previous coal mining operations, proposed residential development following completion of mining operations, remnant vegetation and flooding extents.

A refined alignment has been developed which avoids partially rehabilitated coal fines stockpiles and dams, minimises impacts to potential future residential areas and is positioned above key flood extents. Overall, this alignment represents a minor change from the alignment presented in the EIS, with no new landholders impacted, and no material change to cultural heritage, noise, and air emission impacts during construction. Impacts to native vegetation increase marginally as the construction footprint will impact a small area of PCT 590, Spotted Gum – Broad-leaved Mahogany – Red Ironbark shrubby open forest.

The alignment modification is shown below. In principle agreement has been agreed with the landholder (Ashtonfields) and mining lease holder (Bloomfield) for this alignment.



### Wallis Creek floodplain

As described in Section 7.3.4.2 of the EIS, APA has committed to extending the length of the Wallis Creek HDD to the east to avoid trenching through an area of acid sulfate soils immediately west of Wallis Creek, as well as reducing flooding risk during construction. This concept has now been developed further by also extending the Wallis Creek HDD to the west such that the crossings of Main Road and Wallis Creek are achieved with a single HDD. As such the horizontal bore of Main Road is no longer required.

Overall environmental impacts are reduced with this refinement by avoiding acid sulfate soils and reducing disturbance to the Freshwater Wetlands on Coastal Floodplains TEC. The HDD pad west of Main Road has been positioned such that impacts to the PAD adjacent to Main Road (TH-PAD-01 Extension) are avoided. Noise impacts remain similar to those contemplated in the EIS, with night-time noise from HDD activities the primary issue to mitigate.

To further mitigate potential flooding impacts during construction, it is also proposed to move the construction footprint between Buttai Creek and Wallis Creek 25m to the south as elevation increases in this direction. Environmental impacts for this minor refinement are commensurate with those presented in the EIS.



### Crossing of the South Maitland Coalfields

As described in Section 5.3.1.1 of the EIS, any transmission pipeline alignment between

Leneghan and Kurri Kurri is required to cross the historic South Maitland Coalfields, given they extend from Maitland to south-west of Cessnock. The alignment presented in the EIS crosses this area of historic underground mines between KP16.2 and KP16.4.

Further technical investigations of the proposed crossing location have been undertaken and a minor refinement to move the alignment 10m to the north is proposed. This refinement will further mitigate mine subsidence risks by locating the pipeline above sections of the underground workings that have previously subsided. Environmental impacts for this minor refinement are commensurate with those presented in the EIS.



### Storage pipeline

The construction footprint for the storage pipeline has been refined to minimise impacts to the river-flat eucalypt forest TEC (BC Act endangered, EPBC Act critically endangered), reduce the extent of construction within an east-west trending gully and avoid the area of lowest elevation with potential for flooding and acid sulfate soils. This has been achieved by reducing the length and width of the E-W section of the storage pipeline, and a commensurate increase to the width of the N-S section. In addition, areas for sediment dams have been included in the construction footprint based on runoff calculations. A commitment to investigate of options to minimise impacts to the river-flat eucalypt forest community at the north-eastern extent of the storage pipeline footprint was included in the EIS as a mitigation measure (B09).

Overall, the construction footprint has increased slightly from 33ha to 35ha. The estimated area of impact to river-flat eucalypt forest has reduced from 3.3 to 1.2 ha (BC Act) and marginally increased from 1.1 to 1.2ha (EPBC Act).

Environmental impacts of this refinement are considered to be similar or reduced relative to the EIS, given the minor reduction in impacts to a BC Act TEC, provision for sediment control infrastructure and avoidance of flood prone areas during construction.



### **Compressor station, delivery and associated laydown areas**

The southern boundary of the compressor station and delivery station footprint has been extended approximately 50m to the south to align with southern extent of the HPP 'proposal site'. This also aligns with the boundaries of the proposed Lot 2 DP 1276814, as part of the Regrowth Kurri Kurri project. This increases the area of the footprint by around 0.75ha. There are no material changes to environmental impacts assessed in the EIS given the site is hardstand that has been used for industrial activities for many decades. The additional area remains subject to remediation required to be undertaken as part of the Hydro Aluminium project (SSD-6666).

The fine scale arrangement of equipment within the compressor station and delivery station boundary has also been adjusted. No material changes to environmental impacts assessed in the EIS result from this refinement.

Section 2.3.6.3 of the EIS describes a construction laydown area of up to 5ha to be located on existing hardstand of the former Kurri Kurri aluminium smelter adjacent to the compressor station and delivery station during the construction of these facilities for storage of equipment and materials. The exact location of the laydown area was not known given it was subject to ongoing discussions between APA and Snowy Hydro, Hydro Aluminium, and the Regrowth Kurri Kurri project. All of these stakeholders have an interest in the use of this land during the construction period.

Discussion have further progressed with these parties and laydown areas have been rearranged. The laydown area east of Harts Road within the former carpark of the smelter has been removed and the laydown area west of Harts Road has been extended.

Environmental impacts for this minor refinement are commensurate with or less than those presented in the EIS given the total area for laydown adjacent to the compressor station has been reduced from 8.0 ha to 6.5 ha and remains on hardstand of the former aluminium smelter. The area of mapped important habitat for the swift parrot west of Harts Road is now avoided, whilst noting that this mapped area does not provide any habitat for the swift parrot given it is a cleared carpark.



### **Additional Access tracks**

Four additional access tracks are proposed, as described below.

Black Hill Road to construction footprint – An existing sealed track of around 500m on Lot 2 DP 1260203. This track connects Black Hill Road with the construction footprint on the Broaden Management industrial estate. No additional disturbance is required for this track, which is proposed to be used only for truck deliveries of pipe lengths (around 9 deliveries) and of HDD equipment (around 5 deliveries each for mobilisation and de-mobilisation) to the construction footprint. This will provide a second access point to the construction footprint between KP 0.7 and the crossing of John Renshaw Drive at KP 5.0.

Traffic impacts on Black Hill Road between John Renshaw Drive and the access track will increase for around 1 day during pipe deliveries and 1 day each for HDD mobilisation and demobilisation, with deliveries occurring outside of peak traffic periods. The Traffic Impact Assessment will be amended to assess impacts of these deliveries on Black Hill Road.

Valley View Lane to construction footprint - A track of 800m length following an existing farm track through a cleared paddock on Lot 2 DP779342. This track will connect Valley View Lane with the construction footprint between Wallis Creek and Buttai Creek and enable trucks transporting pipe lengths and HDD equipment to access the construction footprint in the event that wet weather prevents the use of the access track across Buttai Creek. These trucks cannot navigate further along Valley View Lane due to the narrow road width and two right angle turns.

This track is shown under the Buchanan Road west section above.

Main Road to construction footprint - A track of 350m length following an existing farm track through a cleared paddock on Lot 2 DP1249763 on the western side of Main Road. Previously a crossing of Main Road was proposed adjacent to the horizontal bore of the road. The horizontal bore has been replaced by a HDD from the western side of Main Road to the eastern side of Wallis Creek, which enables an

area of known ASS to be avoided and trenching disturbance to the Wallis Creek floodplain to be reduced. A track is required to access the HDD workspace.



Bishops Bridge Road (unmade) to HDD construction footprint - A track of approximately 1km length following an existing track to the north-west of the smelter site. This track will provide access the workspace for the HDD pad of the interconnect pipeline and transmission pipeline. Use of this track is proposed so that interactions between APA traffic accessing the HDD area and Hydro Aluminium traffic accessing the containment cell being used as part of remediation activities are minimised.



Given these proposed tracks either follow existing tracks or are situated in cleared paddocks, no additional material biodiversity impacts are anticipated. Cultural heritage surveys of the proposed tracks have been completed and no PADs have been identified. One artefact scatter is located on the existing access track between Bishops Bridge Road and the construction footprint. This site will be managed in accordance with measures outlined in the ACHAR.

No material additional traffic impacts are anticipated as use of the tracks will not increase project traffic, rather slightly change its' location. In principle agreements have been reached for all directly affected landholders on land proposed for these access tracks.

## Attachment 2. Comparison of EIS design and amended design.

Final calculations for all metrics will be provided in the Amendment Report.

Project element	EIS Design	Amended Design
The Project	<p>The Project will involve the construction, operation, and maintenance of:</p> <ol style="list-style-type: none"> <li>a buried, medium diameter (up to DN350), medium pressure (up to 6.9 MPag) transmission pipeline of approximately 20.1 km long</li> <li>a buried, medium diameter (up to DN350), high pressure (up to 15.3 MPag) interconnect pipeline of approximately 1.3 km.</li> <li>a buried, large diameter (up to DN1050), high pressure (up to 15.3 MPag) storage pipeline of approximately 24 km</li> <li>associated surface facilities such as a compressor station, delivery station and offtake station.</li> </ol>	<p>Transmission pipeline length is approximately 21.1 km.</p> <p>Storage pipeline length is approximately 24.4 km.</p> <p>All other design parameters are unchanged.</p>
Location	The Project is located in the rural locality of Lenaghan, approximately 15 km northwest of Newcastle to approximately 2 km north of Kurri Kurri, NSW. The Project's transmission pipeline traverses the three Local Government Areas (LGAs) of Cessnock, Maitland, and Newcastle.	No change
The Project area	<p>The Project area is defined as the Project's combined construction footprint located over approximately 103 ha and incorporates:</p> <ol style="list-style-type: none"> <li>the construction right of way (ROW) for the transmission, interconnect, and storage pipelines</li> <li>construction workspaces required for the transmission, interconnect and storage pipelines, truck turnarounds, vegetation storage, HDD entry and exit locations, horizontal bore entry and exit locations, watercourse crossing workspaces and line pipe storage areas</li> <li>access tracks to provide access to the construction footprint</li> <li>construction footprints for the offtake facility, compressor station and delivery station.</li> </ol>	The construction footprint is approximately 106ha.
Schedule of land	The Project is located across some 76 cadastral lots.	The Project is located across some 73 cadastral lots.
Construction footprint	Approximately 103 ha	The construction footprint is approximately 106ha.
Vegetation impacted	10 native plant community types encompassing around 65 ha.	12 native plant community types encompassing around 65 ha.
Endangered ecological communities (including both Broaden Management options but excluding vegetation approved for clearing on Hunter Business Park)	<p>Hunter Lowland Redgum Forest - 1.7 ha</p> <p>Kurri sand swamp woodland - 2.5 ha</p> <p>Lower Hunter Spotted Gum Ironbark Forest - 49.9 ha</p> <p>Freshwater wetlands on coastal floodplains of the NSW North Coast – 4.0 ha</p> <p>River-flat eucalypt forest (BC Act) - 3.3 ha</p> <p>River-flat eucalypt forest (EPBC Act) - 1.1 ha</p>	<p>Swamp oak floodplain forest (BC Act) – approx. 0.7 ha</p> <p>Hunter Lowland Redgum Forest – 1.7 ha</p> <p>Kurri sand swamp woodland – 2.9 ha</p> <p>Lower Hunter Spotted Gum Ironbark Forest – 50.1 ha</p> <p>Freshwater wetlands on coastal floodplains of the NSW North Coast – 4.2 ha</p> <p>River-flat eucalypt forest (BC Act) – 1.2 ha</p> <p>River-flat eucalypt forest (EPBC Act) – 1.2 ha</p>

Construction water use and supply	The Project's estimated total water usage is 33 ML. Non potable water for dust control and hydrotesting will be sourced from non-potable water service providers or existing landholders with available allocations.	Reduced to approximately 27 ML. The storage pipeline will be internally lined, therefore water for hydrotesting can be reused between the two test sections. This significantly reduces the volume of water required for the hydrotesting the storage pipeline. The increased length of HDDs requires additional water.
Off-site supporting infrastructure	i. Existing road network j. Water supply (non-potable) k. Waste and wastewater disposal facilities	No change
Construction hours	Transmission pipeline and JGN offtake facility: 7 am to 6 pm Monday to Friday and 8am to 1pm Saturdays Storage pipeline: 6 am to 6 pm seven days per week Compressor station and delivery station: 6am to 6pm weekdays and 8am to 1pm Saturdays l. Limited construction activities outside standard hours.	No change
Construction workforce	Approximately 398 personnel during peak construction (around one month duration) Up to 330 personnel over the remainder of the 12-month construction period	No change
Construction duration	Approximately 12 months	No change
Commencement of operation	Anticipated in Q4 2023	No change
Operational workforce	Approximately 5 personnel	No change
Project life	Approximately 30 years	No change