Orange Airport Diversion

Brown's Creek to Orange Pipeline
Pipeline Licence 22

SSI Project Description

APA Group

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EXECUTIVE SUMMARY

INTRODUCTION

APA Group, comprised of Australian Pipeline Trust and APT Investment Trust, is a major ASX-listed energy transmission company in Australia with interests in almost 12,000 km of natural gas pipeline infrastructure, and over 2,300 km of gas distribution networks in Australia.

East Australian Pipeline Pty Ltd (EAPL), a wholly owned subsidiary of APA Group, is proposing to divert an existing 4" Licenced Pipeline around a proposed runway extension and facilities development at the Orange Aerodrome. The Aerodrome development activities are being approved by the Local Planning Authority (LEP) under Part 4 of the EP&A Act.

The existing Brown's Creek to Orange Pipeline was laid under Commonwealth legislation, but is now licensed by the NSW Department of Trade and Investment as Licence 22. The pipeline does not have a NSW Permit and as such advice has been received that an approval under Part 5 of the EP&A Act is required. A formal Pipeline Licence variation will be sort following the EP&A Act approval.

The diverted pipeline section will be approximately 2 km in length and located around the perimeter of the extended airport at a cost in the vicinity of $1.7m to $2.0m.

The new alignment of the pipeline will involve new easements and a pipeline licence variation.

NEED FOR THE PROJECT

The Aerodrome expansion is being progressed by Orange City Council to allow for F100 operations at maximum take-off weight for flights to destinations including Telfer in WA. The works involve an extension to the existing 11/29 runway requiring realignment of the existing roads and the establishment of hangers and other buildings.

The proposed pipeline diversion would relocate the pipeline to facilitate the proposed runway extension and new airport infrastructure. Without modification to the existing pipeline both locations would involve unacceptable risks to the pipeline and the new assets. It may be possible to accommodate some of the development activities prior to pipeline diversion; however a relocation of the asset will enable on site works to progress safely and enable the proposed infrastructure buildings to be established in the vicinity of the current easement area.

PROJECT PROPOSAL

1. SITE DETAILS

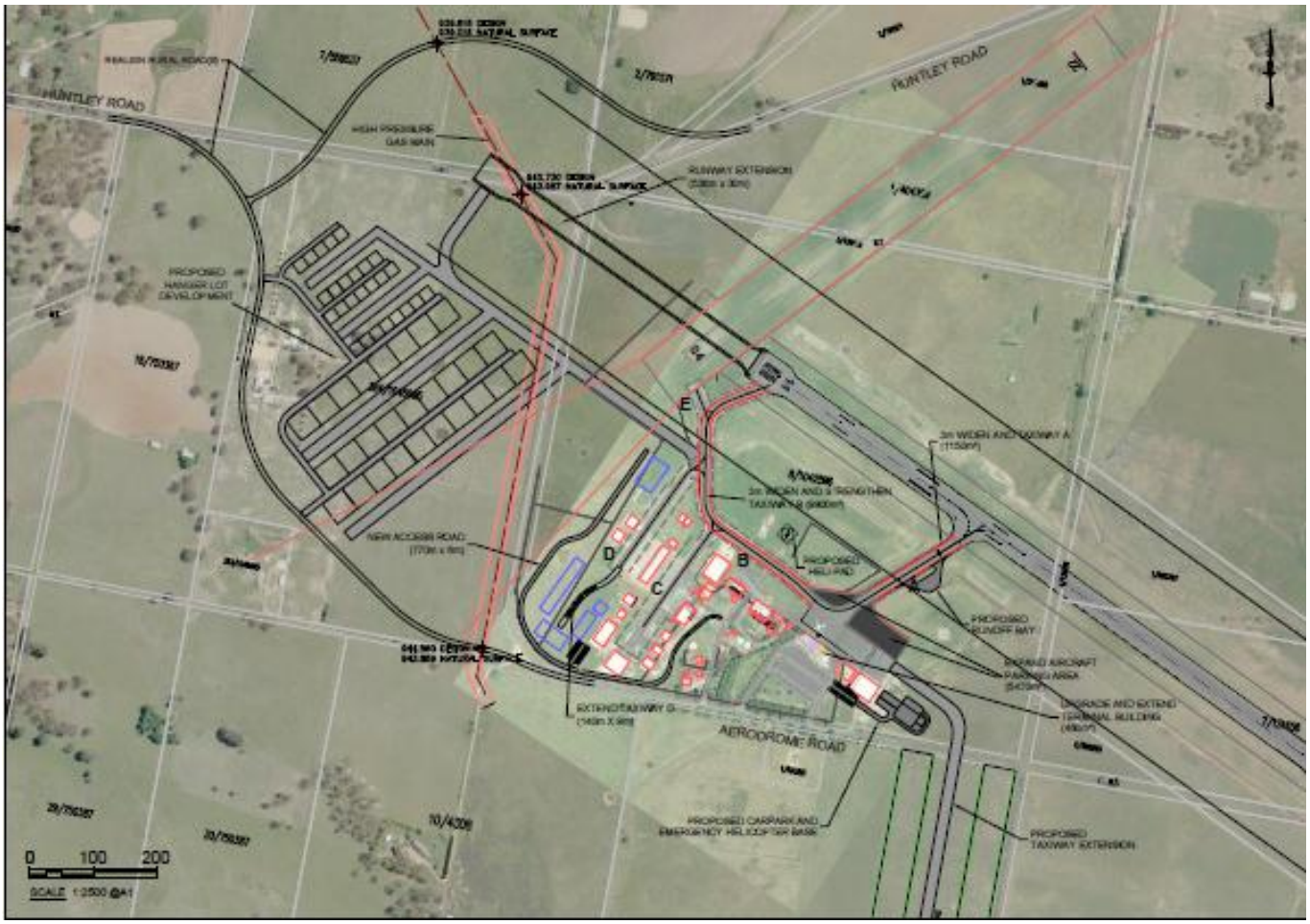
The current Orange Aerodrome is located on Aerodrome Road Orange with an area of approximately 160 ha. It is proposed for the aerodrome to be expanded to the west with an additional 80 ha to enable the extension to the runway.

The current 4" high pressure gas pipeline to Orange passes through the current aerodrome heading north and positioned to the west of the existing runway. The proposal is to move the existing pipeline to the western side of the expanded area to avoid the runway extension works and away from the proposed and any future new buildings.

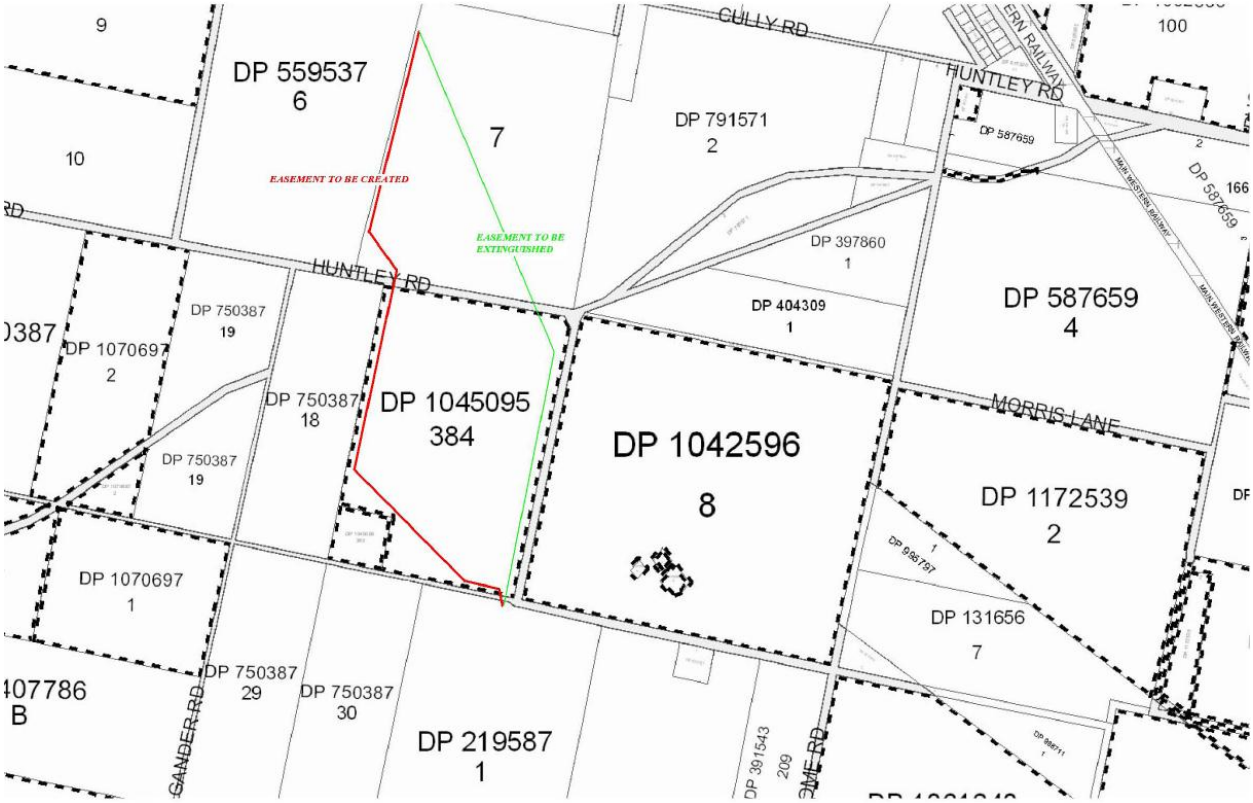
The pipeline will buried along the entire route.

The following pictures have been taken from the Orange City Council's project paperwork. The exact route for the new pipeline is still being negotiated to minimise the environmental impacts, however it is expected to be inside the aerodrome following the new western boundary, located between the fence line and the perimeter road.

The following picture shows the location of the current high pressure pipeline with respect to the existing and proposed aerodrome assets.



The following picture shows the current and proposed alignments with respect to the land ownership. APA has been advised that Lot 7 DP 559537 has been acquired by Orange City Council and that lot 384 DP 1045095 is currently awaiting settlement. Orange City Council will provide APA with necessary easements.



2. DEVELOPMENT DESCRIPTION

The pipeline diversion will involve a full pipeline construction involving easement stripping. The pipe laying activities will be relatively short however the connections onto the existing pipeline will be carried out live using specialist equipment.

Typical activities to be undertaken include:

Temporary Facilities - A range of temporary facilities will be required during pipeline construction. These may include work areas for equipment, pipe delivery and storage and borrow pits to source additional fill material (if required). The location of the temporary facilities will be based upon logistical requirements.

Pipe haulage – Pipe will need to be transported to site and it is anticipated that this would be by road. Pipe is typically supplied in 12m lengths transported on extended semi-trailers with a capacity to carry around 0.5km of pipe per truck. Therefore the pipeline diversion could involve 3 or 4 loaded truck movements.

Access - During construction, some access tracks may be required to areas such as the pipeline easement and work areas. Depending upon how advanced site development works are the work may be either inside or outside the aerodrome perimeter fence. Existing roads, access tracks and disturbed areas will be utilised as far as practicable to minimise disturbance to the surrounding areas.

Workforce Accommodation –It is anticipated, due to the proximity to populated areas, that the construction crew for this Project would be able to be accommodated in existing local accommodation.

Clearing - An impact width of 20 - 30 metres will be required for construction. Large mature trees will be preserved wherever practicable.

Grading - Topsoil will be removed, where required, and stockpiled separately for reuse during rehabilitation.

Trenching - Either a wheel trencher or an excavator will be used to dig the trench in which the pipe will be laid. In rocky terrain rock saws (a type of trenching machine) or excavators using rock picks are likely to be used. Blasting is possible where mechanical means are impractical. The length of trench left open at any given time will be the minimum practicable dependent on land use and prevailing conditions.

Stringing - Pipe will be transported to site on trucks in 18 metre lengths. The pipe is laid out adjacent to the trench and held off the ground on skids (typically wooden blocks) that protect the pipe coating from damage.

Line-Up and Welding - Once the pipe has been strung a line-up crew will position the pipe using side boom tractors and internal line-up clamps. Pipes will be welded in several segments, called pipe strings.

Radiography - Each weld will be subjected to a 100 per cent non-destructive test (NDT) inspection to check for compliance to the specification, thus ensuring the integrity of each weld.

Lowering In and Backfilling – If the trench bottom does not contain any rocks or other material that may damage the pipe coating the pipe will be laid directly on the trench bottom. However, if there are rocks or other debris present sandbags or foam pillows will be placed on the trench bottom to support the pipe. Soft material, typically sifted spoil, will be placed around the pipe.

The pipe will then be lifted off the skids and lowered into the trench using side-boom tractors. The trench will be backfilled, ensuring that topsoil is replaced last, and soil packed down to minimise the potential for subsidence.

Testing - The pipeline will be hydrostatically tested (hydrotest) for strength and potential leaks by being filled with water and increasing the pressure to a minimum of 125% of the MAOP in accordance with AS 2885. Water resources for hydro testing will be identified during the environmental assessment process.

Commissioning – The pipeline will be dried after a successful hydrostatic test and the tie in to existing pipeline will be completed. Hot tapping and stopple technique will be employed to disconnect the existing pipeline and connect the new section of the pipeline.

Crossings - Several different methods are feasible for crossing roads, and other infrastructure corridors. Typical methods used include open trenching, boring or directional drilling. Generally metalled roads will be under bored.

Clean up and Restoration - Clean up and restoration measures will be applied to the ROW, work areas and access tracks in consultation with the relevant landholder/owner. Generally clean up and restoration will involve removal of foreign material (construction material and waste), surface contouring, respreading topsoil, respreading vegetation and reseeding/revegetating (typically with native grass or other approved species). Restoration will be undertaken in accordance with the Australian Pipeline Industry Association (APIA) Code of Environmental Practice and will ensure that:

Topsoil cover is re-established and any land and waterways disturbed by project activities are returned to a stable condition as soon as possible after construction;

- Stable landforms are re-established to original topographic contours;
- Natural drainage patterns are reinstated;
- Erosion control measures (e.g. contour banks, filter strips) are installed in erosion prone areas; and if required
- Disturbed habitats are recreated.

Pipeline Abandonment – In accordance with the APIA Code of Environmental Practice the existing 4" pipeline replaced by the diverted section will be abandoned in situ. The pipeline will be purged clear of flammable fluids and in association with the site requirements will be cut as necessary. Where the small diameter line remains in the ground it will be left without cathodic protection and be allowed to corrode away. Consideration will be given to blocking cut ends with cement slurry.

3. PERMISSIBILITY AND STRATEGIC PLANNING

The original Brown's Creek to Orange Pipeline was laid under Commonwealth Government planning processes and does not therefore currently have a NSW planning permit. State significant infrastructure (SSI) is identified in Schedule 3 of State Environmental Planning Policy (State and Regional Development) 2011 (SRD SEPP). This pipeline is considered SSI.

Under the Pipelines Act the diversion will require an alteration to Licence 22 and be subject to Part 5 of the Environmental Planning & Assessment Act 1979.

The relevant Local Environmental Plans and Regional Planning Instruments associated with the proposed pipeline diversion include the:

Orange Local Environmental Plan 2011

No key opportunities or constraints associated with Regional Strategies or Environmental Planning Instruments have been identified and the work is being carried out in association with the Orange City Council's own development. This will be further investigated during the assessment process.

4. PRELIMINARY ENVIRONMENTAL IMPACT ASSESSMENT

The project is not expected to cause a significant impact on matters of National Environmental Significance (NES). There exists the potential, however unlikely, to impact on threatened species. After investigation on site a referral under the *Environment Protection and Biodiversity Act* (EPBC) will be considered.

Regional Strategy

The work is being carried out at the request of the Local Authority under their direction.

Environmental Planning Instruments

No significant implications arising from the provisions of any Environmental Planning Instruments are likely.

Location Characteristics

The pipeline diversion will be constructed in land acquired by Orange City Council as part of the aerodrome development, and the pipeline will be located inside the aerodrome perimeter fence. The land is largely cleared however some mature trees exist. The pipeline alignment will be adjusted wherever possible to avoid damage to mature trees.

Land Use and Tenure

The proposed route traverses paddocks which will be purchased by Orange City Council and used for the Orange Aerodrome perimeter.

Air and Noise

Air and noise impacts associated with the Project will occur during the construction period. These would be associated with construction activities and the transport of pipe, plant and equipment. The key air quality issue would be dust generation during construction. Noise issues would be typical of earthworks construction being predominantly graders and trenchers although some blasting may be required in rock areas. As such the effects would be transient and short term and similar to those being carried out during the runway and facility construction.

Inspection of the pipeline, by air or ground during operations would continue on a regular basis in association with the current regular fortnightly patrols of the Licence 19 Pipeline.

*Aboriginal **and** Cultural Heritage*

Heritage is addressed under the National Parks and Wildlife Act 1974 in NSW. The Project will

review the EIS completed by Orange City Council and work with the local Lands Council as necessary to study the route with the primary aim of avoiding items of cultural heritage value. In the event that full avoidance is not practicable the Project will seek to agree management strategies of any values that may be impacted. The assessment will be carried out in accordance with the requirements of the DECC document 'Guidelines for Aboriginal Cultural heritage Impact Assessment and Community Consultation'.

European heritage will be studied and the values determined and subsequently managed in accordance with the relevant legislation for each State.

Visual

The aerodrome site will though be subject to substantial development over the next 2 years with the development of the runway and additional infrastructure. The construction of the pipeline will create a cleared corridor approximately 20 to 30m in width which would be highly visible until grasses are re-established post construction, however this area would be largely unseen by the public and relatively minor in context of the aerodrome.

Traffic

The Project would have a minor impact upon roads and road users and in context of the aerodrome development insignificant in scope and duration. There will be several pipe trucks movements and the need to mobilise and demobilise construction plant and equipment to and from the pipeline route at the commencement and completion of construction.

Major construction plant will generally remain on the working width.

On a day to day basis there would be local traffic movements associated with the transport of workers to and from the construction area.

Key Environmental Issues

This section provides a summary of the key issues associated with the construction and operation of a gas pipeline.

Key Issue	Proposed Assessment and/or Management
Vegetation Clearing	The key environmental issue with any pipeline is the clearing of vegetation during the construction phase. Significant vegetation eg mature trees will be avoided where possible in route design. Rehabilitation of the route post construction will be as required by Orange City Council.
Fauna Habitat Disturbance	Clearing of vegetation during construction has a limited potential to disturb fauna habitat. Assessment will identify key fauna species for the area, their potential to be present on the route, important habitats for breeding and key management measures required.

Key Issue	Proposed Assessment and/or Management
Erosion Control	Clearing of stabilising vegetation can lead to dust and erosion issues. Retoration will be determined in consultation with Orange City Council and may be completed by the Council rather tha the Proponent.
Human Amenity	There may be some minor impacts locally, but should be short-term and only construction related.
Risk Management	Design of the pipeline will be in accordance with the requirements of AS2885 which requires a risk based design approach.
Infrastructure	The pipeline route may cross a road and other utility assets. Where this occurs the relevant agencies and their permitting requirements will be identified and adhered to.

5. JUSTIFICATION

The diversion of the gas pipeline is being carried out at the request and expense of the Orange City Council. The pipeline diversion will enable the existing runway to be extended across the current pipeline easement without pipeline safety concerns and moving the pipeline from the existing easement will allow further site development with hangers and other buildings which would otherwise not be permitted in that location or would be subject to further pipeline protection mechanisms. The diverted line addresses all potential issues effectively and permanently.

Once diverted the gas pipeline will operate normally along the new route.

6. CONSULTATION

The pipeline diversion will be carried out as a minor aspect of the Orange Aerodrome development project. Orange City Council will approve the aerodrome development and the preliminary work for that development has included considerations of the pipeline. Of particular note the aerodrome EIS has included the gas pipeline and its realignment in its considerations and Orange City Council is responsible for determining and approving the final alignment.

7. CAPITAL INVESTMENT VALUE

The pipeline diversion is expected to cost in the region of $1.7m to $2.0m depending upon the construction complexity of the final route, the amount of necessary abandonment activities and the site access. These aspects will be developed further as planning progresses. The cost will be entirely reimbursed by Orange City Council and APA will not gain any benefit or increase in

asset from the new alignment.