ntepa Northern Territory Environment Protection Authority

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Mr Jonathan Spink
Jemena Northern Gas Pipeline Pty Ltd
Locked Bag 7000
MOUNT WAVERLEY VIC 3149

Dear Mr Spink

RE: JEMENA NORTHERN GAS PIPELINE PTY LTD - NORTHERN GAS PIPELINE – DIRECTION FOR ADDITIONAL INFORMATION

The Northern Territory Environment Protection Authority (NT EPA) has examined the Supplement to the draft Environmental Impact Statement for the Northern Gas Pipeline (the Supplement) in consultation with NT Government advisory bodies.

Based on a review of the final Environmental Impact Statement (EIS), the NT EPA does not have sufficient or adequate information to fully assess the proposed action and to conclude the potentially significant impacts and risks of the proposal can be managed to an acceptable level.

Pursuant to clause 14(2)(a) of the Environmental Assessment Administrative Procedures, the NT EPA has 21 days from the date the Supplement is submitted to direct the proponent to provide such further information that it considers necessary to facilitate examination of the final EIS. I therefore direct Jemena Northern Gas Pipeline Pty Ltd (Jemena) to provide the further information requested in this letter (Attachment A).

To allow for procedural fairness, the NT EPA has provided two draft adverse findings and recommendations to allow you an opportunity to reply (Attachment A).

Following the receipt of the information from Jemena, the NT EPA may circulate the document to advisory bodies for review. While the NT EPA has 35 days from the receipt of the further information to provide an assessment report for the proposed action to the Minister for Environment and Natural Resources, the NT EPA seeks to conclude the assessment as soon as reasonably practicable.

If you require any clarification on any aspects in the attached information requirements please contact Dr Alana Mackay on (08) 8924 4020 or e-mail: eia.ntepa@nt.gov.au.

Yours sincerely

DR PAUL VOGEL
Chair

28 November 2016

ADDITIONAL INFORMATION AND ADVERSE FINDINGS

JEMENA NORTHERN GAS PIPELINE PTY LTD – NORTHERN GAS PIPELINE

The Northern Territory Environment Protection Authority (NT EPA) is required to examine the final Environmental Impact Statement (EIS) for the Northern Gas Pipeline (the draft EIS and the Supplement to the draft EIS) and make an assessment report. The NT EPA requires sufficient and adequate information to facilitate the examination of the final EIS, which will be used to make suggestions and/or recommendations on the potential environmental impacts and risks of a proposed action, the significance of those impacts and risks and avoidance and minimisation/mitigation measures to reduce those impacts and risks to acceptable levels. Based on the information provided in the final EIS, the NT EPA considers that it does not have sufficient or adequate information on the Northern Gas Pipeline (NGP) to complete its examination of the final EIS at this stage. The matters it requires additional information relate to the assessment of:

- potential impacts to water resources from sourcing water to support the construction of the pipeline and hydrostatic testing of the pipeline, including safe disposal of test waters
- potential impacts to stakeholders, including land holders and Traditional Owners, due to land access and disruption from construction and maintenance activities
- increase demand and/or impact on existing services and infrastructure, including roads, air transport networks and water supplies. The increased demand on the transport network has the potential to damage local infrastructure and impact on the safety of users, including seasonal tourists.

Potential impacts to water resources from sourcing water to support the construction of the pipeline and hydrostatic testing of the pipeline, including safe disposal of test waters

The NT EPA identified the potential impacts to water resources from sourcing water to support the construction of the pipeline and hydrostatic testing of the pipeline as having the potential for a significant effect on the environment. A number of commenters on the draft EIS identified an unsustainable level of water extraction from groundwater in the Barkly region, an arid zone, which could significantly deplete the groundwater aquifers of that region. In the Supplement it is noted that current estimates indicate that the majority of construction and hydrostatic test water can be sourced from an existing dam near Phillip Creek (subject to landholder approval), and supplemented with groundwater from an existing bore near KP413. A process for determining sustainable yield was provided in section 4.5 of the Supplement.

It is understood that the Construction Contractor was undertaking water sourcing investigations at the time the Supplement was lodged with the NT EPA. The investigations were on existing sources, and water quality, to inform the water sourcing strategy, including the identification of new groundwater bores and information on the sustainable extraction rates of groundwater. The results of the water sourcing strategy, including information on the potential impacts to existing users and/or the environment, would enable the NT EPA to complete its assessment of the potential impacts to water resources.

1. ***Provide the results of the water sourcing investigations and the water sourcing strategy.***

Potential impacts to stakeholders, including land holders and Traditional Owners, due to land access and disruption from construction and maintenance activities and increased demand and/or impact on existing services and infrastructure, including roads, air transport networks and water supplies. The increased demand on the transport network has the potential to damage local infrastructure and impact on the safety of users, including seasonal tourists.

The submissions by the Northern Territory Police, Fire and Emergency Services and the Department of Infrastructure, Planning and Logistics (DIPL) highlighted the risks associated with the increase demand and/or impact on existing services and infrastructure, especially the logistics network. The risk for road crashes, particularly in the vicinity of Alpurrurulum Community was identified as a hot spot area. The DIPL identified that a Traffic Impact Assessment is essential to allow for the assessment of the risks associated with the impact of works on NTG roads, infrastructure and road safety. The NT EPA also identified that increased demand on the transport network has the potential to damage local infrastructure and impact on the safety of users, including seasonal tourists. It was noted by DIPL that the Traffic Management Plan (Construction) that was provided in the draft EIS was inadequate. A Traffic Impact Assessment or revised Traffic Management Plan was not provided in the Supplement.

The NT EPA acknowledges that Jemena Northern Gas Pipeline Pty Ltd, the Proponent, has committed to work closely with the DIPL to develop the Traffic Impact Assessment and amend existing transport and traffic management plans. The provision of the Traffic Impact Assessment and targeted Traffic Management Plan would enable the NT EPA to complete its assessment of the potential impacts associated with the increase demand and/or impact on existing services and infrastructure, including roads, air transport networks and water supplies.

2. ***Provide the Traffic Impact Assessment and Traffic Management Plan for the Northern Gas Pipeline, that has been developed in accordance with the risk areas identified in the Terms of Reference for the Northern Gas Pipeline, and in consultation with the Department of Infrastructure, Planning and Logistics.***

Section 5.8.3 of the Terms of Reference for the NGP required the EIS to include an Economic and Social Impact Management Plan (ESIMP) that addresses any risks identified in the Economic and Social Impact Assessment. Submissions by the Northern Land Council and Central Land Council (referred to hereafter as the Land Councils) and the Department of the Chief Minister also highlighted the importance of a targeted ESIMP, which is based on sound consultation with impacted stakeholders and discusses appropriate monitoring and reporting obligations. The NT EPA notes that the Proponent has committed to further consultation, and discussions with community and government stakeholders, particularly in relation to Government funding participation and impact measurement. The provision of a targeted ESIMP would enable the NT EPA to complete its assessment of the potential impacts to stakeholders and potential social, cultural and economic impacts.

3. ***Provide an Economic and Social Impact Management Plan, in accordance with the requirements of the Terms of Reference for the Northern Gas Pipeline, which addresses the comments received on the draft Environmental Impact Statement.***

Adverse findings

Fauna management

The submission by the Land Councils called attention to adverse claims about the performance of the Construction Contractor for the NGP, McConnell Dowell, on a similar oil and gas infrastructure project in Western Australia (WA). The submission cited the Construction Contractor's role with the Port Hedland to Telfer Gold Mine, Power Supply and Infrastructure Corridor project. The then Department of Environment conducted an audit of the project and found the high level of fauna mortality from the open trench was unacceptable and evidence that the proponent was not complying with all environmental management commitments. Notably, the WA Environmental Protection Authority considered that the proponent had been unable to adequately manage the impact on biodiversity of the area with an open trench of 60 km and recommended it reduce the open trench to 20 km under good trenching conditions and 10 km in rocky terrain.

The NT EPA considers the environmental history of the proponent and persons undertaking the action in its assessment of a proposed action, and is concerned the Construction Contractor has been unable to execute environmental protection measures to adequate standard. The adverse claims made by the Land Councils were not addressed in the Supplement to the draft Environmental Impact Statement (the Supplement).

The NT EPA and the Land Councils requested targeted information on trench specifications, including duration and distances of the open trench, and associated fauna trench fall management measures. The information was requested to assess if the measures proposed would be suitable for the protection of biodiversity values. It is acknowledged the Proponent stated in the Supplement that '*...due to operational reasons, it is difficult to indicate how much trench will be open at any one time. Regardless of the length and time any section of trench is open; the Construction Contractor will ensure that the Trench Inspection Procedure will be adhered to.*'

In addition to the adverse claims made against the Construction Contractor and trench fauna management, the NT EPA does not consider that it has sufficient information to assess the adequacy of measures to protect biodiversity issues associated with entrapment and to manage animal welfare. It is likely to make recommendations in its assessment of the NGP, which include:

- The maximum length of the open trench not exceeds a length capable of being practically inspected and cleared by fauna spotter catchers.
- The maximum length of the open trench not exceeds 20 km in any case.
- Fauna shelters be placed at intervals not greater than 500 m.
- Fauna ramps and/or earth plugs be placed at intervals not greater than 1 km.
- All fauna spotter catchers hold a valid permit to take or interfere with wildlife issued under the *Territory Parks and Wildlife Conservation Act* and be experienced in the identification of fauna and assessment of fauna condition.
- Trench inspections be completed within 4 hours of sunrise. Additional inspections should occur at frequencies to ensure maximum recovery of fauna from the trench that may not be able to be identified within 4 hours of sunrise.
- Works on the trench not commence until trench inspections have been completed.
- A vet be on standby if fauna are in need of medical treatment, such as from injury.

It is understood that the Proponent may be adversely affected by the above-mentioned recommendations and the NT EPA offers the Proponent the opportunity to make a submission in reply. In the reply, claims must be supported by relevant literature, data and the results of relevant targeted studies.

Watercourse crossings

The staff of the NT EPA provided a comment on the draft EIS that the NT EPA does not support the use of open trenching methods for any watercourse that is flowing, including base flow, or within close proximity to pools that support ecosystem function. It was requested that information be provided that clearly demonstrates measures have been taken to avoid and mitigate the risks associated with watercourse crossings. Further information was requested on the specific watercourse crossing locations, survey methods and targeted information on watercourse

crossing methods, including erosion and sediment control, vegetation, bed and back reinstatements and ongoing monitoring and reporting to be conducted at the watercourse crossing locations; contingencies in the event of uncharacteristic rains, prolonged/larger than average wet season or the delayed onset of 'dry' conditions; and criteria for assessing whether open trenching methods are able to be conducted at watercourse crossing locations or whether an alternative construction method, or time to undertake construction works, should be considered, including alternative construction methods for each location.

It was noted in the Supplement that '*where pools are present at the watercourse crossings, a dam and pump crossing technique will be employed to minimise impacts on water flows and water quality*'. The criteria provided in Table 4-3 indicated that a dam and pump crossing technique would be used if the '*water is flowing in watercourse, watercourse in a creek or river (stream order 3+), and a pump is available to allow water to be pumped at a similar rate to flows, and provide for a dry work area*'. The dam and pump crossing technique was also identified as an alternative if the criterion for using the open cut trench technique could not be satisfied.

The NT EPA is not satisfied that the environmental values of the James, Ranken and Georgina Rivers have been sufficiently characterised and does not support the proposed criteria for determining conditions suitable for constructing the NGP at these locations when water is present. In particular, semi-permanent and permanent pools which persist throughout the Dry season and return with sufficient regularity are known to occur in these systems. The pools are likely to have unique geomorphologic/geological characteristics to support the longevity and persistence of water that could be impacted by construction activities for the NGP. The proximity of the construction activities to these features is currently unknown.

In addition, the Land Councils identified that permanent or ephemeral waterbodies, and riparian vegetation, especially large eucalyptus trees, have value to the local Aboriginal people. The Land Councils expressed concern that the Proponent had not given enough attention to minimising impacts on these values and recommended adequate consultation on these matters with the traditional owners.

The NT EPA is likely to conclude that the potential impacts on the James, Ranken and Georgina Rivers, including riparian areas, is unacceptable based on the provision of insufficient information. It is likely to recommend that the further works and consultation be completed to characterise the values of the systems and develop suitable avoidance and mitigation measures specific to each watercourse, which may include alternative crossing methods. At a minimum, the NT EPA considers it necessary for:

- site specific information on the rivers to be obtained, including proximity of proposed construction works to semi-permanent and permanent pools
- an appropriate distance that construction works could occur to ensure that no adverse impacts occur to any identified pools
- the results of consultation on the values of permanent or ephemeral waterbodies, and riparian vegetation, especially large eucalyptus trees.
- if it is not possible to avoid pools or the values identified from consultation, it would be appropriate for site specific studies and management measures be developed by suitably qualified and experienced persons in dryland river geomorphology and/or anthropology, respectively.

It is understood that the Proponent may be adversely affected by the above-mentioned finding and offers the Proponent the opportunity to make a submission in reply. In the reply, claims must be supported by relevant literature, data and the results of relevant targeted studies.