Our ref: DOC21/518911-3
Your ref: SSI-22338205

Mandana Mazaheri

Principal Planning Officer
Energy Resource Assessment
Department of Planning, Industry and Environment
Mandana.Mazaheri@planning.nsw.gov.au

Dear Mandana,

Input into Secretary's Environmental Assessment Requirements – Kurri Kurri Lateral Pipeline Project – Plumpton to Hexham Northern Trunk - Cessnock City, Maitland City and City of Newcastle (SSI-22338205)

I refer to your Major Projects Portal request on 18 June 2021 seeking input into the Secretary's Environmental Assessment Requirements (SEARs) for the Kurri Kurri Lateral Pipeline Project which runs from Plumpton to Hexham Northern Trunk. The proposed infrastructure development is within the Cessnock City, Maitland City and Newcastle City local government areas.

The Biodiversity Conservation Division (BCD) of the Department of Planning, Industry and Environment (the Department) understands that Snowy Hydro Limited is proposing to install between 17 and 21 kilometres of transmission pipeline to develop a gas-fired power station in Kurri Kurri. BCD understands that the proposal is a State Significant Infrastructure (SSI-22338205) project under the *Environmental Planning and Assessment Act 1979*.

BCD has reviewed the document '*Scoping Report – Kurri Kurri Lateral Pipeline*' as prepared by GHD Pty Ltd (dated 11 June 2021) and has prepared Standard SEARs which are presented in **Attachment A**. There are no project-specific SEARs provided for this project (**Attachment B**). Details of guidance documents are provided in **Attachment C**.

If you have any further questions in relation to this matter, please contact Jayme Lennon, Senior Conservation Planning Officer at huntercentralcoast@environment.nsw.gov.au.

Yours sincerely

STEVE LEWER
Acting Senior Team Leader Planning
Hunter Central Coast Branch
Biodiversity and Conservation Division

Enclosure: Attachments A, B, C

Date: 24 June 2021

Attachment A – Standard Environmental Assessment Requirements

Biodiversity

1. Biodiversity impacts related to the proposed development (SSI-22338205) are to be assessed in accordance with the Biodiversity Assessment Method 2020 and documented in a Biodiversity Development Assessment Report (BDAR). The BDAR must include information in the form detailed in the *Biodiversity Conservation Act 2016* (s6.12), *Biodiversity Conservation Regulation 2017* (s6.8) and Biodiversity Assessment Method 2020.
2. The BDAR must document the application of the avoid, minimise and offset framework including assessing all direct, indirect and prescribed impacts in accordance with the Biodiversity Assessment Method 2020.
3. The BDAR must include details of the measures proposed to address the offset obligation as follows;
    - The total number and classes of biodiversity credits required to be retired for the development/project;
    - The number and classes of like-for-like biodiversity credits proposed to be retired;
    - The number and classes of biodiversity credits proposed to be retired in accordance with the variation rules;
    - Any proposal to fund a biodiversity conservation action;
    - Any proposal to conduct ecological rehabilitation (if a mining project);
    - Any proposal to make a payment to the Biodiversity Conservation Fund.

If seeking approval to use the variation rules, the BDAR must contain details of the reasonable steps that have been taken to obtain requisite like-for-like biodiversity credits.

4. The BDAR must be prepared by a person accredited in accordance with the Accreditation Scheme for the Application of the Biodiversity Assessment Method Order 2017 under s6.10 of the *Biodiversity Conservation Act 2016*.

Water and soils

5. The EIS must map the following features relevant to water and soils including:
    a. Acid sulfate soils (Class 1, 2, 3 or 4 on the Acid Sulfate Soil Planning Map).
    b. Rivers, streams, wetlands, estuaries (as described in s4.2 of the Biodiversity Assessment Method).
    c. Wetlands as described in s4.2 of the Biodiversity Assessment Method.
    d. Groundwater.
    e. Groundwater dependent ecosystems.
    f. Proposed intake and discharge locations.

6. The EIS must describe background conditions for any water resource likely to be affected by the development, including:
    a. Existing surface and groundwater.
    b. Hydrology, including volume, frequency and quality of discharges at proposed intake and discharge locations.
    c. Water Quality Objectives (as endorsed by the NSW Government http://www.environment.nsw.gov.au/ieo/index.htm) including groundwater as appropriate that represent the community's uses and values for the receiving waters.
    d. Indicators and trigger values/criteria for the environmental values identified at (c) in accordance with the ANZECC (2000) Guidelines for Fresh and Marine Water Quality and/or local objectives, criteria or targets endorsed by the NSW Government.

7. The EIS must assess the impacts of the development on water quality, including:
    a. The nature and degree of impact on receiving waters for both surface and groundwater, demonstrating how the development protects the Water Quality Objectives where they are currently being achieved, and contributes towards achievement of the Water Quality Objectives over time where they are currently not being achieved. This should include an assessment of the mitigating effects of proposed stormwater and wastewater management during and after construction.
    b. Identification of proposed monitoring of water quality.

8. The EIS must assess the impact of the development on hydrology, including:
    a. Water balance including quantity, quality and source.
    b. Effects to downstream rivers, wetlands, estuaries, marine waters and floodplain areas.
    c. Effects to downstream water-dependent fauna and flora including groundwater dependent ecosystems.
    d. Impacts to natural processes and functions within rivers, wetlands, estuaries and floodplains that affect river system and landscape health such as nutrient flow, aquatic connectivity and access to habitat for spawning and refuge (e.g. river benches).
    e. Changes to environmental water availability, both regulated/licensed and unregulated/rules-based sources of such water.
    f. Mitigating effects of proposed stormwater and wastewater management during and after construction on hydrological attributes such as volumes, flow rates, management methods and re-use options.
    g. Identification of proposed monitoring of hydrological attributes.

Flooding and coastal erosion

9. The EIS must map the following features relevant to flooding as described in the Floodplain Development Manual 2005 (NSW Government 2005) including:
    a. Flood prone land.
    b. Flood planning area, the area below the flood planning level.
    c. Hydraulic categorisation (floodways and flood storage areas).

10. The EIS must describe flood assessment and modelling undertaken in determining the design flood levels for events, including a minimum of the 1 in 10 year, 1 in 100 year flood levels and the probable maximum flood, or an equivalent extreme event.

11. The EIS must model the effect of the proposed development (including fill) on the flood behaviour under the following scenarios:
    a. Current flood behaviour for a range of design events as identified in 11 above. This includes the 1 in 200 and 1 in 500 year flood events as proxies for assessing sensitivity to an increase in rainfall intensity of flood producing rainfall events due to climate change.

12. Modelling in the EIS must consider and document:
    a. The impact on existing flood behaviour for a full range of flood events including up to the probable maximum flood.
    b. Impacts of the development on flood behaviour resulting in detrimental changes in potential flood affection of other developments or land. This may include redirection of flow, flow velocities, flood levels, hazards and hydraulic categories.
    c. Relevant provisions of the NSW Floodplain Development Manual 2005.

13. The EIS must assess the impacts on the proposed development on flood behaviour, including:
    a. Whether there will be detrimental increases in the potential flood affectation of other properties, assets and infrastructure.
    b. Consistency with Council floodplain risk management plans.
    c. Compatibility with the flood hazard of the land.
    d. Compatibility with the hydraulic functions of flow conveyance in floodways and storage in flood storage areas of the land.
    e. Whether there will be adverse effect to beneficial inundation of the floodplain environment, on, adjacent to or downstream of the site.
    f. Whether there will be direct or indirect increase in erosion, siltation, destruction of riparian vegetation or a reduction in the stability of river banks or watercourses.
    g. Any impacts the development may have upon existing community emergency management arrangements for flooding. These matters are to be discussed with the SES and Council.
    h. Whether the proposal incorporates specific measures to manage risk to life from flood. These matters are to be discussed with the SES and Council.
    i. Emergency management, evacuation and access, and contingency measures for the development considering the full range or flood risk (based upon the probable maximum flood or an equivalent extreme flood event). These matters are to be discussed with and have the support of Council and the SES.
    j. Any impacts the development may have on the social and economic costs to the community as consequence of flooding.

14. The [EIS/EA] must describe the potential effects of coastal processes and hazards (within the meaning of the Coastal Management Act 2016), including sea level rise and climate change: a. On the proposed development b. Arising from the proposed development.
15. The [EIS/EA] must consider have regard to any certified Coastal Management Program (or Coastal Zone Management Plan) and be consistent with the management objectives described in the Coastal Management Act 2016 and development controls for coastal management areas mapped under the State Environmental Planning Policy (Coastal Management) 2018.

Attachment B – Project specific environmental assessment requirements

Biodiversity - nil
Water and soils - nil
Flooding and coastal erosion - nil

Attachment C – Guidance material

Title	Web address
Relevant legislation	
Biodiversity Conservation Act 2016	https://www.legislation.nsw.gov.au/#/view/act/2016/63/full
Coastal Management Act 2016	https://www.legislation.nsw.gov.au/#/view/act/2016/20/full
Commonwealth Environment Protection and Biodiversity Conservation Act 1999	http://www.austlii.edu.au/au/legis/cth/consol_act/epabca1999588/
Environmental Planning and Assessment Act 1979	http://www.legislation.nsw.gov.au/maintop/view/inforce/act+203+1979+cd+0+N
Fisheries Management Act 1994	http://www.legislation.nsw.gov.au/maintop/view/inforce/act+38+1994+cd+0+N
Marine Parks Act 1997	http://www.legislation.nsw.gov.au/maintop/view/inforce/act+64+1997+cd+0+N
National Parks and Wildlife Act 1974	http://www.legislation.nsw.gov.au/maintop/view/inforce/act+80+1974+cd+0+N
Protection of the Environment Operations Act 1997	http://www.legislation.nsw.gov.au/maintop/view/inforce/act+156+1997+cd+0+N
Water Management Act 2000	http://www.legislation.nsw.gov.au/maintop/view/inforce/act+92+2000+cd+0+N
Wilderness Act 1987	http://www.legislation.nsw.gov.au/viewtop/inforce/act+196+1987+FIRST+0+N
Biodiversity	
Biodiversity Assessment Method (OEH, 2020)	https://www.environment.nsw.gov.au/-/media/OEH/Corporate-Site/Documents/Animals-and-plants/Biodiversity/biodiversity-assessment-method-2020-200438.pdf
Guidance and Criteria to assist a decision maker to determine a serious and irreversible impact (OEH, 2017)	http://www.environment.nsw.gov.au/resources/bcact/guidance-decision-makers-determine-serious-irreversible-impact-170204.pdf
Surveying threatened plants and their habitats - NSW survey guide for the Biodiversity Assessment Method (DPIE, 2020)	https://www.environment.nsw.gov.au/research-and-publications/publications-search/surveying-threatened-plants-and-their-habitats-survey-guide-for-the-biodiversity-assessment-method
NSW Survey Guide for Threatened Frogs – A guide for the survey of threatened frogs and their habitats for the Biodiversity Assessment Method (DPIE 2020)	https://www.environment.nsw.gov.au/research-and-publications/publications-search/nsw-survey-guide-for-threatened-frogs
'Species credit' threatened bats and their habitats – NSW survey guide for the Biodiversity Assessment Method	https://www.environment.nsw.gov.au/research-and-publications/publications-search/species-credit-threatened-bats-nsw-survey-guide-for-biodiversity-assessment-method
Fisheries NSW policies and guidelines	http://www.dpi.nsw.gov.au/fisheries/habitat/publications/policies,-guidelines-and-manuals/fish-habitat-conservation
List of national parks	http://www.environment.nsw.gov.au/NationalParks/parksearchatoz.aspx
Revocation, recategorisation and road adjustment policy (OEH, 2012)	http://www.environment.nsw.gov.au/policies/RevocationOfLandPolicy.htm

Title	Web address
Guidelines for developments adjoining land and water managed by the Department of Environment, Climate Change and Water (DECCW, 2010)	http://www.environment.nsw.gov.au/protectedareas/developmntadjoiningdecc.htm
Acid sulphate soils	
Acid Sulfate Soils Planning Maps via Data.NSW	http://data.nsw.gov.au/data/
Acid Sulfate Soils Manual (Stone et al. 1998)	http://www.environment.nsw.gov.au/resources/epa/Acid-Sulfate-Manual-1998.pdf
Acid Sulfate Soils Laboratory Methods Guidelines (Ahern et al. 2004)	http://www.environment.nsw.gov.au/resources/soils/acid-sulfate-soils-laboratory-methods-guidelines.pdf This replaces Chapter 4 of the Acid Sulfate Soils Manual above.
Flooding and coastal erosion	
Reforms to coastal erosion management	http://www.environment.nsw.gov.au/coasts/coastalerosionmgmt.htm
Floodplain development manual	http://www.environment.nsw.gov.au/floodplains/manual.htm
Guidelines for Preparing Coastal Zone Management Plans	Guidelines for Preparing Coastal Zone Management Plans http://www.environment.nsw.gov.au/resources/coasts/130224CZMPGuide.pdf
NSW Climate Impact Profile	http://climatechange.environment.nsw.gov.au/
Climate Change Impacts and Risk Management	Climate Change Impacts and Risk Management: A Guide for Business and Government, AGIC Guidelines for Climate Change Adaptation
Water	
Water Quality Objectives	http://www.environment.nsw.gov.au/ieo/index.htm
ANZECC (2000) Guidelines for Fresh and Marine Water Quality	www.environment.gov.au/water/publications/quality/australian-and-new-zealand-guidelines-fresh-marine-water-quality-volume-1
Applying Goals for Ambient Water Quality Guidance for Operations Officers – Mixing Zones	http://deccnet/water/resources/AWQGuidance7.pdf
Approved Methods for the Sampling and Analysis of Water Pollutant in NSW (2004)	http://www.environment.nsw.gov.au/resources/legislation/approvedmethods-water.pdf

Regulatory, Planning and Assessment. MBisson/GMansfield
Reference: SDC2021/0008
Phone: 02 4974 2000

5 July 2021

Mandana Mazaheri, PhD
Team Leader
Resource Assessments
Department of Planning, Industry and Environment
GPO Box 39
SYDNEY NSW 2001

Reply by portal: https://www.planningportal.nsw.gov.au/major-projects/project/42096

Dear Mandana

KURRI KURRI LATERAL PIPELINE PROJECT (SSI-22338205)

I refer to the Department's notification of 18 June 2021 advising a request has been received for the Secretary's Environmental Assessment Requirements (SEARs) for the Kurri Kurri Lateral Pipeline Project which is classified as critical State Significant Infrastructure. The Department has requested City of Newcastle (CN) to provide advice on any key issues and assessment requirements to be addressed in the SEARs.

The Scoping Report and draft SEARs have been reviewed and it is recommended the following additional matters are addressed:

1. Black Hill Precinct Catalyst Area

The SEARs (and subsequently the project) should consider and protect the employment lands of the emerging Black Hill Precinct Catalyst Area as identified in the Hunter Regional Plan 2036 (Planning & Environment, 2016), Greater Newcastle Metropolitan Plan (DPIE, 2018), and Newcastle Local Strategic Planning Statement (City of Newcastle, 2021).

Additionally, the project should not compromise the certainty nor significantly impact the timing, lot yield, subdivision layout or development costs associated with the redevelopment of the emerging Black Hill Precinct Catalyst Area to be undertaken in accordance with the Black Hill Employment Lands Concept Approval (MP 10_0093) and the Staging Plan approved by Council at Ordinary Council Meeting of 29 June 2021.

2. Flood Management

As identified in the Scoping Report the subject land is affected by flooding. Consideration is to be given to the various documents and legislative changes included in the NSW Government's flood-prone land package which will commence on 14 July 2021.

3. Impacts on CN owned road reserves.

Wherever possible the proposed pipeline should not run longitudinally within any CN owned road reserves. Perpendicular crossings of these road reserves are acceptable and directional boring techniques should be utilised for any crossing of existing roads.

4. Adjoining Development

An assessment should be provided of each of the proposed routes which details how the routes are compatible or conflict with existing approved developments, any current development applications, approved Concept Plans (Part 3A), State significant developments or State significant infrastructure proposals. In this regard, particular attention should be given to ensuring that the 'Corridor – Northern' alignment is consistent with the planned M1 Motorway to Raymond Terrace extension and the approved Concept Plan (MP10_0093) for the Blackhill Industrial lands at 198 Lenaghans Drive, Black Hill that has recently been discussed with officers of Transport for NSW and now makes allowance for possible future road connections to the M1 Motorway.

5. Section 7.12 Newcastle Local Infrastructure Contributions Plan (Update Dec 2020)

The above plan applies to the subject land. The SEARs are to consider the provisions of the plan.

If you have any questions in relation to the various matters raised in this letter, please contact Geof Mansfield, Principal Planner on 4974 2767 or by email on gmansfield@ncc.nsw.gov.au .

Yours faithfully

Michelle Bisson
MANAGER REGULATORY, PLANNING AND ASSESSMENT

The Department of Planning, Industry and Environment – Crown Lands (the Department) has reviewed the Scoping Report and Draft Planning Secretary's Environmental Assessment Requirements (SEARs) for the Kurri Kurri Lateral Pipeline Project (SSI 22338205).

The proposed transmission pipeline options will affect Crown land and/or Crown roads. The Environmental Impact Statement (EIS) must include:

- A map and description identifying any Crown land within the project area. The description is to include cadastral information and the type of Crown land, e.g. Crown road, Crown reserve with reserve purpose, Crown lease, Crown waterway, etc.
- Details of the impacts on any affected Crown land from the proposal including the construction, operation and maintenance activities and occupation, and any ancillary construction purposes, ancillary facilities, access, fencing, signage, storage, offsets and buffers, and including impacts on existing users/uses.
- Details of the consultation process with the Department, as the landowner, and any affected Crown land managers, Crown tenure holders and Aboriginal Land Claimants.
- Details of the legislative functions proposed to authorise the use and occupation of affected Crown land, e.g. compulsorily acquisition under the *Pipelines Act 1967*, tenure under the *Crown Land Management Act 2016* or road works approval under the *Roads Act 1993*.
- Details of compliance with native title legislation for any proposed dealing in Crown land.

Should you have further enquiries please contact Mark Grace, Natural Resource Management Project Officer, on 02 4937 9331 or mark.grace@crownland.nsw.gov.au

It is highly recommended that the proponent engage with the Crown Lands acquisition team at their earliest to discuss facilitation of the proposed acquisition of Crown land.

NSW GOVERNMENT | Department of Primary Industries

OUT21/8750

Dr Mandana Mazaheri
Energy, Resources and Industry
Department of Planning, Industry and Environment

Major Projects Portal

Dear Dr Mazaheri

Kurri Kurri Lateral Pipeline Project (SSI 22338205).

Thank you for your correspondence dated 24 June 2021 regarding the request for Advice on the Secretary's Environmental Assessment Requirements (SEARs) for the Kurri Kurri Lateral Pipeline Project (SSI 22338205).

The NSW Department of Primary Industries (NSW DPI) Agriculture is committed to the protection and growth of agricultural industries, and the land and resources upon which these industries depend.

NSW DPI Agriculture provides EARs (Attachment 1) and a range of publications to assist consent authorities, proponents and the community in addressing the recommended EARs (Attachment 2).

Should you require clarification on any of the information contained in this response, please contact me on phone 0427949987 or by email at landuse.ag@dpi.nsw.gov.au

Yours sincerely

Mary Kovac
Agricultural Land Use Planning Officer
Central and Far West

Attachment 1: SEARs Recommendations for Kurri Kurri Lateral Pipeline (SSI 22338205)

Issue	Environmental Assessment Requirements for the EIS
Site Suitability	• Include a Land Use Conflict Risk Assessment (LUCRA) for each route option to identify potential land use conflict, in particular relating to separation distances and management practices to minimise adverse impacts on sensitive receptors including agricultural land uses during both the construction and operation phases of the proposed development. A LUCRA is described in the DPI Land Use Conflict Risk Assessment Guide. • Include a map to scale showing the above operational and infrastructure details including separation distances from sensitive receptors including agricultural land uses.
Consideration of impacts on agricultural resources and land	• Describe the current and potential agricultural resources and agricultural land uses along the route of the proposed pipeline and in the surrounding locality including the land capability and agricultural productivity. • Demonstrate that all significant impacts on current and potential agricultural developments and resources can be reasonably avoided or adequately mitigated. • Consider possible cumulative effects to agricultural enterprises and landholders. • Detail the expected life span of the proposed development • Outline details of potential land use sharing with agriculture.
Surface & Groundwater impacts	• Detail how the construction and operation of the proposed development will: o avoid nutrient, and sediment build up in water courses; o avoid excess build-up of nutrients and salts in the soil profile or increase the risk of leaching; o avoid impacts on water use by agricultural land uses; and o minimise erosion, off site surface water movement and groundwater accession. • Detail the proposed mitigation measures to address the above impacts.
Biosecurity Impacts	• Include a detailed biosecurity risk assessment which identifies the potential pest animal, weed and disease risks that may arise from the proposed development both during construction and operation. • Detail the proposed monitoring program and the measures proposed to avoid or mitigate potential biosecurity risks.
Impacts on traffic movements related to agricultural land uses	• Consider the potential impact of the proposed development on the movement of traffic associated with agricultural land uses along the route of the proposed pipeline. This should include consideration of Travelling Stock Reserves (TSR) and the movement of livestock or farm vehicles.

Rehabilitation	• Detail the proposed rehabilitation and decommissioning works. This includes, but is not limited to: o describing the design criteria of the final land use and landform; o how existing rural land will be able to support agricultural production after decommissioning of the pipeline; Note: for any land with a cropping history or suitable for cropping, pipes are to be buried at a depth >500mm to allow greater opportunity for agricultural activities to continue over the top, particularly for non-decommissioning pipes once rehabilitation is complete o the expected timeline for the rehabilitation program. o an outline of monitoring and mitigation measures to be adopted for rehabilitation remedial actions.
Community Consultation	• Detail consultation, undertaken or proposed, with the owners / managers of surrounding agricultural operations in a timely and appropriate manner about the likely impacts of the proposed development and any mitigation measures or compensation.
Emergency Management	• Include details of proposed emergency management responses that outline procedures and responsibilities for responding to natural hazards or similar emergencies.

Attachment 2: Guidelines for assessment

Title	Location
Land Use Conflict Risk Assessment Guide	www.dpi.nsw.gov.au/content/agriculture/resources/lup/development-assessment/lucra
Infrastructure Proposals on Rural Land	http://www.dpi.nsw.gov.au/content/agriculture/resources/lup/development-assessment/infrastructure-proposals

NSW GOVERNMENT | Department of Primary Industries

Our Ref: C21/374

SSI-22338205

29 June 2021

Via Planning Portal

Energy, Resources and Industry
Department of Planning, Industry and Environment
4PSQ Level 17, 12 Darcy Street, Parramatta NSW 2150

E jessica.fountain@planning.nsw.gov.au

Dear Jessica,

Proposal: SEARs request Kurri Kurri Lateral Pipeline Project (SSI-22338205).
Property:

Thank you for your referral of 24 June 2021 requesting SEARs for the proposal, from the NSW Department of Primary Industries – Fisheries (DPI Fisheries).

DPI Fisheries is responsible for ensuring that fish stocks are conserved and that there is no net loss of key fish habitats upon which they depend. To achieve this, DPI Fisheries ensures that developments comply with the requirements of the *Fisheries Management Act 1994* (FM Act) (namely the aquatic habitat protection and threatened species conservation provisions in Parts 7 and 7A of the Act, respectively), and the associated *Policy and Guidelines for Fish Habitat Conservation and Management (2013)*. DPI Fisheries is also responsible for ensuring the sustainable management of commercial, recreational and Aboriginal cultural fishing, aquaculture, Marine Parks and Aquatic Reserves within NSW.

The preliminary Environmental assessment identifies several watercourses within the proposed pipeline routes that need to be crossed.

The Department has concerns relating to the proposed creek crossings for pipeline construction methodology and any access tracks for construction and maintenance.

All corridors require crossings of significant waterways. Key waterways include:
– Wallis Creek – crossed by all corridors
– Swamp Creek – crossed by all corridors
– Buttai Creek – crossed by the central corridor
– Four Mile Creek – crossed by the northern corridor
There are many other minor creeks crossings potentially at Viney Creek, Blue Gum Creek, Surveyors Creek that have not been identified.
The Department has mapped many these waterways as key fish habitat.

Horizontal boring or similar would satisfy the Departments concerns for the construction methodology, however access and maintenance tracks still need assessment to ensure fish passage is not compromised.

The Department would require all crossings of waterways be assessed against the following documents.

DPI Fisheries
PSFI, Private Bag 1, Nelson Bay
Email: ahp.central@dpi.nsw.gov.au
ABN 20 770 707 468

- *Fisheries Management Act 1994*
- Policy and guidelines for fish habitat conservation and management. NSW DPI
- *Why do Fish Need to Cross the Road? Fish Passage Requirements for Waterway Crossings*. NSW DPI

If you require any further information, please do not hesitate to contact me on 4916 3931.

Yours sincerely,

Scott Carter
Senior Fisheries Manager – Coastal Systems Central/Metro
Authorised delegate of the Minister for Primary Industries

DPI Fisheries
PSFI, Private Bag 1, Nelson Bay
Email: ahp.central@dpi.nsw.gov.au
ABN 20 770 707 468

From: Kathy Staggs <kathy.staggs@planning.nsw.gov.au>
Sent: Wednesday, 30 June 2021 7:46 PM
To: Jessica Fountain <Jessica.Fountain@planning.nsw.gov.au>
Cc: Navin Subash <Navin.Subash@planning.nsw.gov.au>; Warren Woodhouse <warren.woodhouse@planning.nsw.gov.au>; Nikhil Maharaj <Nikhil.Maharaj@planning.nsw.gov.au>
Subject: RE: REMINDER – Request for Input - Kurri Kurri Lateral Pipeline Project - SEARs

Hi Jessica

Thank you for the reminder on this, we had reviewed but not yet replied.

We would be interested for the SEARs to require the proponent to outline the proposal for licensing of the pipeline/s. Our aim is to ensure that the pipeline/s will be licensed under the *Pipelines Act 1967*, regardless of length, to ensure appropriate technical and safety regulation of this critical infrastructure.

We also request that the SEARs include a requirement for the proponent to outline their consideration of any capacity constraints of any pipelines this project will be connecting to, and any plan to address such constraints should they exist.

Please call if you have any questions.

Kind regards

Kathy Staggs
Manager Energy Networks

Energy, Climate Change & Sustainability | Department of Planning, Industry and Environment
T 02 8229 2835 | **M** 0404 843 926 | **E** Kathy.staggs@planning.nsw.gov.au

From: Nicholas Hon
Sent: Tuesday, 29 June 2021 12:19 PM
To: Mandana Mazaheri
Cc: Doris Yau
Subject: RE: Request for Input - Kurri Kurri Lateral Pipeline Project - SEARs
Attachments: Kurri Kurri Lateral Pipeline Scoping Report.pdf; DRAFT Kurri Kurri Lateral Pipeline Project - SEARs.pdf

Follow Up Flag: Follow up
Flag Status: Flagged

Hi Mandana,

Thanks for forwarding the attached scoping report.

From Section 3.3.1, it is understood that APA Group's preferred transmission pipeline corridor (i.e. route) is the Northern Corridor (Figure 3-2) with the Central Corridor (Figure 3-1) maintained as an option. Although not a preferable option, the Southern Corridor (Figure 3-3) is also noted in the scoping report. Additionally, Section 3.2 lists 3 possible design options, with APA Group's preferred design to include a storage pipeline.

From our discussion this morning, it is understood that APA Group must perform a full environmental assessment for any configuration (i.e. pipeline corridor + design option) to which approval is sought. As such, we request APA Group to perform quantitative risk analyses (QRA), showing that these configurations can comply with the Department's land use safety risk criteria. In performing the QRA we note the following factors which needs to be carefully analysed or assessed:

- A mine site at Black Hill located within and close to the Northern and Central Corridors respectively. Pipelines within or close to mine sites or former mine sites must be designed in view of ground movement or ground subsidence. QRA assumptions must be appropriate for these considerations.
- The Central and Southern Corridors traversing between the built-up areas of Kurri Kurri and Heddon Greta.

Given the above, we recommend the following SEARs be included:

Hazards and Risks – The EIS must include a Preliminary Hazard Analysis (PHA) prepared in accordance with the Department's *Hazardous Industry Planning Advisory Paper No. 6, 'Hazard Analysis'*. The PHA must:

- be a quantitative risk assessment (QRA) to estimate the risks from the pipeline to the surrounding land uses, with reference to *Australian Standards 2885 Pipelines – Gas and liquid petroleum*;
- demonstrate that the pipeline corridors and designs to which approval is sought can comply with the Department's *Hazardous Industry Planning Advisory Paper No. 4, 'Risk Criteria for Land Use Safety Planning'*; and
- consider the PHA prepared for the proposed Kurri Kurri Power Station (Hunter Power Project, SSI-12590060) especially on safeguards against accident propagation or escalation between both SSIs.

Thanks.

Regards,

Nicholas Hon
Technical Specialist (Hazards)
Industry Assessments
4 Parramatta Square, 12 Darcy Street, Parramatta NSW 2150
T 02 9274 6344

NSW GOVERNMENT | Planning, Industry & Environment

OUT21/8194

Mandana Mazaheri
Planning and Assessment Group
NSW Department of Planning, Industry and Environment

mandana.mazaheri@planning.nsw.gov.au

Dear Ms Mazaheri

Kurri Kurri Lateral Pipeline Project (SSI-22338205)
Comment on the Secretary's Environmental Assessment Requirements (SEARs)

I refer to your email of 18 June 2021 to the Department of Planning, Industry and Environment (DPIE) Water and the Natural Resources Access Regulator (NRAR) about the above matter.

The following recommendations are provided by DPIE Water and NRAR.

The SEARS should include:

- The identification of an adequate and secure water supply for the life of the project. This includes confirmation that water can be sourced from an appropriately authorised and reliable supply. This is also to include an assessment of the current market depth where water entitlement is required to be purchased.
- A detailed and consolidated site water balance.
- Assessment of impacts on surface and ground water sources (both quality and quantity), related infrastructure, adjacent licensed water users, basic landholder rights, watercourses, riparian land, and groundwater dependent ecosystems, and measures proposed to reduce and mitigate these impacts.
- Proposed surface and groundwater monitoring activities and methodologies.
- Consideration of relevant legislation, policies and guidelines, including the NSW Aquifer Interference Policy (2012), the Guidelines for Controlled Activities on Waterfront Land (2018) and the relevant Water Sharing Plans (available at https://www.industry.nsw.gov.au/water).

Any further referrals to DPIE Water and NRAR can be sent by email to landuse.enquiries@dpie.nsw.gov.au. or to the following coordinating officer within DPIE Water:

Alistair Drew, Project Officer
E: Alistair.drew@dpie.nsw.gov.au
M: 0417 626 567

Yours sincerely

Alistair Drew
Project Officer, Assessments
Water – Knowledge Office
23 June 2021

Department of Planning, Industry and Environment
By Email: mandana.mazaheri@planning.nsw.gov.au

Attention: Mandana Mazaheri

Notice Number	1610119
Date	30-Jun-2021

Snowy Hydro Limited - Kurri Kurri Lateral Pipeline Project - SSI 22338205

I refer to your request to the Environment Protection Authority's (EPA) dated 18 June 2021, seeking the Secretary's Environmental Assessment Requirements (SEARs) to assist with the preparation of an Environmental Impact Statement (EIS) for the Snowy Hydro Limited - Kurri Kurri Lateral Pipeline Project - SSI 22338205.

The EPA has considered the details of the proposal and provides the information at Attachment A it requires to properly assess the proposal. The EPA's key information requirements for the proposal include an adequate assessment of:

1. Potential noise impacts due to construction and operation;
2. Potential air quality impacts due to construction and operation;
3. Impacts on water quality and site wide water management; and
4. Waste management and disposal.

In carrying out the assessment, the proponent should refer to the relevant guidelines as listed in Attachment B and any relevant industry codes of practice and best practice management guidelines.

Please note that this response does not cover biodiversity or Aboriginal cultural heritage issues, which are the responsibility of the Office of Environment and Heritage.

The Proponent should be made aware that any commitments made in the EIS may be formalised as approval conditions and may also be placed as conditions, if a licence is required.

The Proponent should be made aware that, consistent with provisions under Part 9.4 of the *Protection of the Environment Operations Act* 1997 (the Act) the EPA may require the provision of a financial assurance and/or assurances. The amount and form of the assurance(s) would be determined by the EPA and required as a condition of an Environment Protection Licence.

Yours sincerely

.....

STEVEN JAMES

Unit Head Regulatory Operations Metro North

Environment Protection Authority

(by Delegation)

ATTACHMENT A: EIS REQUIREMENTS FOR

Snowy Hydro Limited - Kurri Kurri Lateral Pipeline Project - SSI 22338205

How to use these requirements

The EPA requirements have been structured in accordance with the DIPNR EIS Guidelines, as follows. It is suggested that the EIS follow the same structure:

A. Executive summary

B. The proposal

C. The location

D. Identification and prioritisation of issues

E. The environmental issues

F. List of approvals and licences

G. Compilation of mitigation measures

H. Justification for the proposal

The EIS should address the specific requirements outlined under each heading below and assess impacts in accordance with the relevant guidelines and/or standards at Attachment B.

A Executive summary

The executive summary should include a brief discussion of the extent to which the proposal achieves identified environmental outcomes.

B The proposal

1. Objectives of the proposal

- The objectives of the proposal should be clearly stated and refer to:
  a) the size and type of the operation, the nature of the processes and the products, by-products and wastes produced
  b) a life cycle approach to the production, use or disposal of products
  c) the anticipated level of performance in meeting required environmental standards and cleaner production principles
  d) the staging and timing of the proposal and any plans for future expansion
  e) the proposal's relationship to any other industry or facility.

2. Description of the proposal

General

- Outline the production process including:
  a) the environmental "mass balance" for the process – quantify in-flow and out-flow of materials, any points of discharge to the environment and their respective destinations (sewer, stormwater, atmosphere, recycling, landfill etc)
  b) any life-cycle strategies for the products.
- Outline cleaner production actions, including:
  a) measures to minimise waste (typically through addressing source reduction)
  b) proposals for use or recycling of by-products
  c) proposed disposal methods for solid and liquid waste
  d) air management systems including all potential sources of air emissions, proposals to re-use or treat emissions, emission levels relative to relevant standards in regulations, discharge points
  e) water management system including all potential sources of water pollution, proposals for re-use, treatment etc, emission levels of any wastewater discharged, discharge points, summary of options explored to avoid a discharge, reduce its frequency or reduce its impacts, and rationale for selection of option to discharge.
  f) soil contamination treatment and prevention systems.
- Outline construction works including:
  a) actions to address any existing soil contamination

b) any earthworks or site clearing; re-use and disposal of cleared material (including use of spoil on-site)

c) construction timetable and staging; hours of construction; proposed construction methods

d) environment protection measures, including noise mitigation measures, dust control measures and erosion and sediment control measures.

- Include a site diagram showing the site layout and location of environmental controls.

Air

- Identify all sources or potential sources of air emissions from the development.
  Note: emissions can be classed as either:
  - *point (e.g. emissions from stack or vent) or*
  - *fugitive (from wind erosion, leakages or spillages, associated with loading or unloading, conveyors, storage facilities, plant and yard operation, vehicle movements (dust from road, exhausts, loss from load), land clearing and construction works).*
- Provide details of the project that are essential for predicting and assessing air impacts including:
  a) the quantities and physio-chemical parameters (e.g. concentration, moisture content, bulk density, particle sizes etc) of materials to be used, transported, produced or stored

  b) an outline of procedures for handling, transport, production and storage

  c) the management of solid, liquid and gaseous waste streams with potential to generate emissions to air.

Noise and vibration

- Identify all noise sources or potential sources from the development (including both construction and operation phases). Detail all potentially noisy activities including ancillary activities such as transport of goods and raw materials.
- Specify the times of operation for all phases of the development and for all noise producing activities.
- For projects with a significant potential traffic noise impact provide details of road alignment (include gradients, road surface, topography, bridges, culverts etc), and land use along the proposed road and measurement locations – diagrams should be to a scale sufficient to delineate individual residential blocks.

Water

- Provide details of the project that are essential for predicting and assessing impacts to waters including:
  a) the quantity and physio-chemical properties of all potential water pollutants and the risks they pose to the environment and human health, including the risks they pose to Water Quality Objectives in the ambient waters (as defined on http://www.environment.nsw.gov.au/ieo/index.htm, using technical criteria derived from *the Australian and New Zealand Guidelines for Fresh and Marine Water Quality*, ANZECC 2000)

  b) the management of discharges with potential for water impacts

c) drainage works and associated infrastructure; land-forming and excavations; working capacity of structures; and water resource requirements of the proposal.

- Outline site layout, demonstrating efforts to avoid proximity to water resources (especially for activities with significant potential impacts e.g. effluent ponds) and showing potential areas of modification of contours, drainage etc.
- Outline how total water cycle considerations are to be addressed showing total water balances for the development (with the objective of minimising demands and impacts on water resources). Include water requirements (quantity, quality and source(s)) and proposed storm and wastewater disposal, including type, volumes, proposed treatment and management methods and re-use options.

Waste and chemicals

Provide details of the quantity and type of both liquid waste and non-liquid waste generated, handled, processed or disposed of at the premises. Waste must be classified according to the EPA's *Waste Classification Guidelines 2014 (as amended from time to time)*

- Provide details of liquid waste and non-liquid waste management at the facility, including:
  a) the transportation, assessment and handling of waste arriving at or generated at the site
  b) any stockpiling of wastes or recovered materials at the site
  c) any waste processing related to the facility, including reuse, recycling, reprocessing (including composting) or treatment both on- and off-site
  d) the method for disposing of all wastes or recovered materials at the facility
  e) the emissions arising from the handling, storage, processing and reprocessing of waste at the facility
  f) the proposed controls for managing the environmental impacts of these activities.
- Provide details of spoil disposal with particular attention to:
  a) the quantity of spoil material likely to be generated
  b) proposed strategies for the handling, stockpiling, reuse/recycling and disposal of spoil
  c) the need to maximise reuse of spoil material in the construction industry
  d) identification of the history of spoil material and whether there is any likelihood of contaminated material, and if so, measures for the management of any contaminated material
  e) designation of transportation routes for transport of spoil.
- Provide details of procedures for the assessment, handling, storage, transport and disposal of all hazardous and dangerous materials used, stored, processed or disposed of at the site, in addition to the requirements for liquid and non-liquid wastes.
- Provide details of the type and quantity of any chemical substances to be used or stored and describe arrangements for their safe use and storage.
- Reference should be made to the guidelines: EPA's *Waste Classification Guidelines 2014 (as amended from time to time)*

ESD

- Demonstrate that the planning process and any subsequent development incorporates objectives and mechanisms for achieving ESD, including:

  a) an assessment of a range of options available for use of the resource, including the benefits of each option to future generations

  b) proper valuation and pricing of environmental resources

  c) identification of who will bear the environmental costs of the proposal.

3. Rehabilitation

- Outline considerations of site maintenance, and proposed plans for the final condition of the site (ensuring its suitability for future uses).

4. Consideration of alternatives and justification for the proposal

- Consider the environmental consequences of adopting alternatives, including alternative:
  a) sites and site layouts
  b) access modes and routes
  c) materials handling and production processes
  d) waste and water management
  e) impact mitigation measures
  f) energy sources
- Selection of the preferred option should be justified in terms of:
  a) ability to satisfy the objectives of the proposal
  b) relative environmental and other costs of each alternative
  c) acceptability of environmental impacts and contribution to identified environmental objectives
  d) acceptability of any environmental risks or uncertainties
  e) reliability of proposed environmental impact mitigation measures
  f) efficient use (including maximising re-use) of land, raw materials, energy and other resources.

C The location

1. General

- Provide an overview of the affected environment to place the proposal in its local and regional environmental context including:

  a) meteorological data (e.g. rainfall, temperature and evaporation, wind speed and direction)

  b) topography (landform element, slope type, gradient and length)

  c) surrounding land uses (potential synergies and conflicts)

d) geomorphology (rates of landform change and current erosion and deposition processes)

e) soil types and properties (including erodibility; engineering and structural properties; dispersibility; permeability; presence of acid sulfate soils and potential acid sulfate soils)

f) ecological information (water system habitat, vegetation, fauna)

g) availability of services and the accessibility of the site for passenger and freight transport.

2. Air

- Describe the topography and surrounding land uses. Provide details of the exact locations of dwellings, schools and hospitals. Where appropriate provide a perspective view of the study area such as the terrain file used in dispersion models.
- Describe surrounding buildings that may effect plume dispersion.
- Provide and analyse site representative data on following meteorological parameters:

  a) temperature and humidity

  b) rainfall, evaporation and cloud cover

  c) wind speed and direction

  d) atmospheric stability class

  e) mixing height (the height that emissions will be ultimately mixed in the atmosphere)

  f) katabatic air drainage

  g) air re-circulation.

3. Noise and vibration

- Identify any noise sensitive locations likely to be affected by activities at the site, such as residential properties, schools, churches, and hospitals. Typically the location of any noise sensitive locations in relation to the site should be included on a map of the locality.
- Identify the land use zoning of the site and the immediate vicinity and the potentially affected areas.

4. Water

- Describe the catchment including proximity of the development to any waterways and provide an assessment of their sensitivity/significance from a public health, ecological and/or economic perspective. The Water Quality and River Flow Objectives on the website:

  http://www.environment.nsw.gov.au/ieo/index.htm should be used to identify the agreed environmental values and human uses for any affected waterways. This will help with the description of the local and regional area.

5. Soil Contamination Issues

- Provide details of site history – if earthworks are proposed, this needs to be considered with regard to possible soil contamination, for example if the site was previously a landfill site or if irrigation of effluent has occurred.

D Identification and prioritisation of issues / scoping of impact assessment

- Provide an overview of the methodology used to identify and prioritise issues. The methodology should take into account:
  a) relevant NSW government guidelines
  b) industry guidelines
  c) EISs for similar projects
  d) relevant research and reference material
  e) relevant preliminary studies or reports for the proposal
  f) consultation with stakeholders.
- Provide a summary of the outcomes of the process including:
  a) all issues identified including local, regional and global impacts (e.g. increased/ decreased greenhouse emissions)
  b) key issues which will require a full analysis (including comprehensive baseline assessment)
  c) issues not needing full analysis though they may be addressed in the mitigation strategy
  d) justification for the level of analysis proposed (the capacity of the proposal to give rise to high concentrations of pollution compared with the ambient environment or environmental outcomes is an important factor in setting the level of assessment).

E The environmental issues

1. General

- The potential impacts identified in the scoping study need to be assessed to determine their significance, particularly in terms of achieving environmental outcomes, and minimising environmental pollution.
- Identify gaps in information and data relevant to significant impacts of the proposal and any actions proposed to fill those information gaps so as to enable development of appropriate management and mitigation measures. This is in accordance with ESD requirements.

Note: The level of detail should match the level of importance of the issue in decision making which is dependent on the environmental risk.

Describe baseline conditions

- Provide a description of existing environmental conditions for any potential impacts.

Assess impacts

- For any potential impacts relevant for the assessment of the proposal provide a detailed analysis of the impacts of the proposal on the environment including the cumulative impact of the proposal on the receiving environment especially where there are sensitive receivers.
- Describe the methodology used and assumptions made in undertaking this analysis (including any modelling or monitoring undertaken) and indicate the level of confidence in the predicted outcomes and the resilience of the environment to cope with the predicted impacts.
- The analysis should also make linkages between different areas of assessment where necessary to enable a full assessment of environmental impacts e.g. assessment of impacts on air quality will often need to draw on the analysis of traffic, health, social, soil and/or ecological systems impacts; etc.
- The assessment needs to consider impacts at all phases of the project cycle including: exploration (if relevant or significant), construction, routine operation, start-up operations, upset operations and decommissioning if relevant.
- The level of assessment should be commensurate with the risk to the environment.

Describe management and mitigation measures

- Describe any mitigation measures and management options proposed to prevent, control, abate or mitigate identified environmental impacts associated with the proposal and to reduce risks to human health and prevent the degradation of the environment. This should include an assessment of the effectiveness and reliability of the measures and any residual impacts after these measures are implemented.
- Proponents are expected to implement a 'reasonable level of performance' to minimise environmental impacts. The proponent must indicate how the proposal meets reasonable levels of performance. For example, reference technology based criteria if available, or identify good practice for this type of activity or development. A 'reasonable level of performance' involves adopting and implementing technology and management practices to achieve certain pollutant emissions levels in economically viable operations. Technology-based criteria evolve gradually over time as technologies and practices change.
- Use environmental impacts as key criteria in selecting between alternative sites, designs and technologies, and to avoid options having the highest environmental impacts.
- Outline any proposed approach (such as an Environmental Management Plan) that will demonstrate how commitments made in the EIS will be implemented. Areas that should be described include:

  a) operational procedures to manage environmental impacts

  b) monitoring procedures

  c) training programs

  d) community consultation

  e) complaint mechanisms including site contacts

  f) strategies to use monitoring information to improve performance

  g) strategies to achieve acceptable environmental impacts and to respond in event of exceedences.

4. Air

Describe baseline conditions

- Provide a description of existing air quality and meteorology, using existing information and site representative ambient monitoring data. This description should include the following parameters:

Assess impacts

- Identify all pollutants of concern and estimate emissions by quantity (and size for particles), source and discharge point.
- Estimate the resulting ground level concentrations of all pollutants. Where necessary (e.g. potentially significant impacts and complex terrain effects), use an appropriate dispersion model to estimate ambient pollutant concentrations. Discuss choice of model and parameters with the EPA.
- Describe the effects and significance of pollutant concentration on the environment, human health, amenity and regional ambient air quality standards or goals.
- Describe the contribution that the development will make to regional and global pollution, particularly in sensitive locations.
- For potentially odorous emissions provide the emission rates in terms of odour units (determined by techniques compatible with EPA procedures). Use sampling and analysis techniques for individual or complex odours and for point or diffuse sources, as appropriate.

Note: With dust and odour, it may be possible to use data from existing similar activities to generate emission rates.

- Reference should be made to *Approved Methods for the Modelling and Assessment of Air Pollutants in NSW* (DEC, 2016)*; Approved Methods for the Sampling and Analysis of Air Pollutants in NSW* (DEC, 2007)*; Assessment and Management of Odour from Stationary Sources in NSW* (DEC, 2006)*; Technical Notes: Assessment and Management of Odour from Stationary Sources in NSW (DEC, 2006); Load Calculation Protocol for use by holders of NSW Environment Protection Licences when calculating Assessable Pollutant Loads* (DECC, 2009).

Describe management and mitigation measures

- Outline specifications of pollution control equipment (including manufacturer's performance guarantees where available) and management protocols for both point and fugitive emissions. Where possible, this should include cleaner production processes.

5. Human Health Risk Assessment

- A human health risk assessment must be undertaken in conjunction with the air quality and odour impact assessment.
- The human health risk assessment must be undertaken in accordance with *Environmental Health Risk Assessment: Guidelines for assessing human health risks from environmental hazards* (enHealth) and must include:
    - the inhalation of criteria pollutants and exposure from all pathways i.e., inhalation, ingestion and dermal to specific air toxics; and

- a demonstration of how the waste to energy facility would be operated in accordance with best practice measures to manage air emissions with consideration of the *Environment Protection Authority's NSW Energy from Waste Policy Statement*.

6. Noise and vibration

Describe baseline conditions

- Determine the existing background (LA90) and ambient (LAeq) noise levels, as relevant, in accordance with the *NSW Noise Policy for Industry*.
- Determine the existing road traffic noise levels in accordance with the *NSW Road Noise Policy*, where road traffic noise impacts may occur.
- The noise impact assessment report should provide details of all monitoring of existing ambient noise levels including:
  a) details of equipment used for the measurements
  b) a brief description of where the equipment was positioned
  c) a statement justifying the choice of monitoring site(s), including the procedure used to choose the site(s), having regards to Fact Sheets A and B of the *NSW Noise Policy for Industry.*
  d) details of the exact location of the monitoring site and a description of land uses in surrounding areas
  e) a description of the dominant and background noise sources at the site
  f) day, evening and night assessment background levels for each day of the monitoring period
  g) the final Rating Background Level (RBL) value
  h) graphs of the measured noise levels for each day should be provided
  i) a record of periods of affected data (due to adverse weather and extraneous noise), methods used to exclude invalid data and a statement indicating the need for any re-monitoring under Step 1 in Section B1.3 of the NSW Industrial Noise Policy
  j) determination of LAeq noise levels from exisiting industry.

Assess impacts

- Determine the project noise trigger levels for the site. For each identified potentially affected receiver, this should include:
  a) determination of the project intrusive noise level for each identified potentially affected receiver
  b) selection and justification of the appropriate amenity category for each identified potentially affected receiver
  c) determination of the project amenity noise level for each receiver
  d) determination of the appropriate maximum noise level event assessment (sleep disturbance) trigger level.
- Maximum noise levels during night-time period (10pm-7am) should be assessed to analyse possible affects on sleep. Where LA1 (1min) noise levels from the site are less than 15 dB above the background LA90 noise level, sleep disturbance impacts are unlikely. Where this is not the case, further analysis is

required. Additional guidance is provided in Appendix B of the *NSW Environmental Criteria for Road Traffic Noise.*

- Determine expected noise level and noise character likely to be generated from noise sources during:
  a) site establishment
  b) construction
  c) operational phases
  d) transport including traffic noise generated by the proposal
  e) other services.

  Note: The noise impact assessment report should include noise source data for each source in 1/1 or 1/3 octave band frequencies including methods for references used to determine noise source levels. Noise source levels and characteristics can be sourced from direct measurement of similar activities or from literature (if full references are provided).

- Determine the noise levels likely to be received at the reasonably most affected location(s) (these may vary for different activities at each phase of the development). Potential impacts should be determined for any identified significant adverse meteorological conditions. Predicted noise levels under calm conditions may also aid in quantifying the extent of impacts where this is not the most adverse condition.
- The noise impact assessment report should include:
  a) a plan showing the assumed location of each noise source for each prediction scenario
  b) a list of the number and type of noise sources used in each prediction scenario to simulate all potential significant operating conditions on the site
  c) any assumptions made in the predictions in terms of source heights, directivity effects, shielding from topography, buildings or barriers, etc
  d) methods used to predict noise impacts including identification of any noise models used.
  e) an assessment of appropriate weather conditions considered for the noise predictions including reference to any weather data used to justify the assumed conditions.
  f) the predicted noise impacts from each noise source as well as the combined noise level for each prediction scenario under any identified significant adverse weather conditions as well as calm conditions where appropriate.
  g) for developments where a significant level of noise impact is likely to occur, noise contours for the key prediction scenarios should be derived
  h) an assessment of the need to include modification factors as detailed in Fact Sheet C of the *NSW Noise Policy for Industry*.
- Discuss the findings from the predictive modelling and, where relevant noise criteria have not been met, recommend additional feasible and reasonable mitigation measures.
- The noise impact assessment report should include details of any mitigation proposed including the attenuation that will be achieved and the revised noise impact predictions following mitigation.
- Where relevant noise/vibration levels cannot be met after application of all feasible and reasonable mitigation measures the residual level of noise impact needs to be quantified.
  a) locations where the noise levels exceeds the criteria and extent of exceedence
  b) numbers of people (or areas) affected

c) times when he criteria will be exceeded

d) likely impact on activities (speech, sleep, relaxation, listening, etc)

e) change in ambient conditions

f) the result of any community consultation and negotiated agreement.

- For the assessment of existing and future traffic noise, details of data for the road should be included such as assumed traffic volume; percentage heavy vehicles by time of day; and details of the calculation process. These details should be consistent with any traffic study carried out in the EIS.
- Where blasting is intended an assessment in accordance with the *Technical Basis for Guidelines to Minimise Annoyance due to Blasting Overpressure and Ground Vibration* (ANZECC, 1990) should be undertaken. The following details of the blast design should be included in the noise assessment:

  a) bench height, burden spacing, spacing burden ratio

  b) blast hole diameter, inclination and spacing

  c) type of explosive, maximum instantaneous charge, initiation, blast block size, blast frequency.

Describe management and mitigation measures

- Determine the most appropriate noise mitigation measures and expected noise reduction including both noise controls and management of impacts for both construction and operational noise. This will include selecting quiet equipment and construction methods, noise barriers or acoustic screens, location of stockpiles, temporary offices, compounds and vehicle routes, scheduling of activities, etc.
- For traffic noise impacts, provide a description of the ameliorative measures considered (if required), reasons for inclusion or exclusion, and procedures for calculation of noise levels including ameliorative measures. Also include, where necessary, a discussion of any potential problems associated with the proposed ameliorative measures, such as overshadowing effects from barriers. Appropriate ameliorative measures may include:

  a) use of alternative transportation modes, alternative routes, or other methods of avoiding the new road usage

  b) control of traffic (eg: limiting times of access or speed limitations)

  c) resurfacing of the road using a quiet surface

  d) use of (additional) noise barriers or bunds

  e) treatment of the façade to reduce internal noise levels buildings where the night-time criteria is a major concern

  f) more stringent limits for noise emission from vehicles (i.e. using specially designed ‘quite’ trucks and/or trucks to use air bag suspension

  g) driver education

  h) appropriate truck routes

  i) limit usage of exhaust brakes

  j) use of premium muffles on trucks

  k) reducing speed limits for trucks

  l) ongoing community liaison and monitoring of complaints

m) phasing in the increased road use.

4. Water

Describe baseline conditions

- Describe existing surface and groundwater quality – an assessment needs to be undertaken for any water resource likely to be affected by the proposal and for all conditions (e.g. a wet weather sampling program is needed if runoff events may cause impacts).

  Note: Methods of sampling and analysis need to conform with an accepted standard (e.g. Approved Methods for the Sampling and Analysis of Water Pollutants in NSW (DEC 2004) *or be approved and analyses undertaken by accredited laboratories).*

- Provide site drainage details and surface runoff yield.
- State the ambient Water Quality and River Flow Objectives for the receiving waters. These refer to the community's agreed environmental values and human uses endorsed by the Government as goals for the ambient waters. These environmental values are published on the website: http://www.environment.nsw.gov.au/ieo/index.htm. The EIS should state the environmental values listed for the catchment and waterway type relevant to your proposal. NB: A consolidated and approved list of environmental values are not available for groundwater resources. Where groundwater may be affected the EIS should identify appropriate groundwater environmental values and justify the choice.
- State the indicators and associated trigger values or criteria for the identified environmental values. This information should be sourced from the ANZECC 2000 *Guidelines for Fresh and Marine Water Quality* (http://www.environment.gov.au/water/publications/quality/nwqms-guidelines-4-vol1.html) (Note that, as at 2004, the NSW Water Quality Objectives booklets and website contain technical criteria derived from the 1992 version of the ANZECC Guidelines. The Water Quality Objectives remain as Government Policy, reflecting the community's environmental values and long-term goals, but the technical criteria are replaced by the more recent ANZECC 2000 Guidelines). NB: While specific guidelines for groundwater are not available, the ANCECC 2000 Guidelines endorse the application of the trigger values and decision trees as a tool to assess risk to environmental values in groundwater.
- State any locally specific objectives, criteria or targets, which have been endorsed by the government e.g. the Healthy Rivers Commission Inquiries or the NSW Salinity Strategy (DLWC, 2000) (http://www.environment.nsw.gov.au/salinity/government/nswstrategy.htm).
- Where site specific studies are proposed to revise the trigger values supporting the ambient Water Quality and River Flow Objectives, and the results are to be used for regulatory purposes (e.g. to assess whether a licensed discharge impacts on water quality objectives), then prior agreement from the EPA on the approach and study design must be obtained.
- Describe the state of the receiving waters and relate this to the relevant Water Quality and River Flow Objectives (i.e. are Water Quality and River Flow Objectives being achieved?). Proponents are generally only expected to source available data and information. However, proponents of large or high risk developments may be required to collect some ambient water quality / river flow / groundwater data to enable a suitable level of impact assessment. Issues to include in the description of the receiving waters could include:

  a) lake or estuary flushing characteristics

  b) specific human uses (e.g. exact location of drinking water offtake)

c) sensitive ecosystems or species conservation values

d) a description of the condition of the local catchment e.g. erosion levels, soils, vegetation cover, etc

e) an outline of baseline groundwater information, including, but not restricted to, depth to watertable, flow direction and gradient, groundwater quality, reliance on groundwater by surrounding users and by the environment

f) historic river flow data where available for the catchment.

Assess impacts

- No proposal should breach section 120 of the *Protection of the Environment Operations Act* 1997 (i.e. pollution of waters is prohibited unless undertaken in accordance with relevant regulations).
- Identify and estimate the quantity of all pollutants that may be introduced into the water cycle by source and discharge point including residual discharges after mitigation measures are implemented.
- Include a rationale, along with relevant calculations, supporting the prediction of the discharges.
- Describe the effects and significance of any pollutant loads on the receiving environment. This should include impacts of residual discharges through modelling, monitoring or both, depending on the scale of the proposal. Determine changes to hydrology (including drainage patterns, surface runoff yield, flow regimes, wetland hydrologic regimes and groundwater).
- Describe water quality impacts resulting from changes to hydrologic flow regimes (such as nutrient enrichment or turbidity resulting from changes in frequency and magnitude of stream flow).
- Identify any potential impacts on quality or quantity of groundwater describing their source.
- Identify potential impacts associated with geomorphological activities with potential to increase surface water and sediment runoff or to reduce surface runoff and sediment transport. Also consider possible impacts such as bed lowering, bank lowering, instream siltation, floodplain erosion and floodplain siltation.
- Identify impacts associated with the disturbance of acid sulfate soils and potential acid sulfate soils.
- Containment of spills and leaks shall be in accordance with EPA's guidelines section 'Bunding and Spill Management' at http://www.epa.nsw.gov.au/mao/bundingspill.htm and the most recent versions of the Australian Standards referred to in the Guidelines. Containment should be designed for no-discharge.
- The significance of the impacts listed above should be predicted. When doing this it is important to predict the ambient water quality and river flow outcomes associated with the proposal and to demonstrate whether these are acceptable in terms of achieving protection of the Water Quality and River Flow Objectives. In particular the following questions should be answered:

  a) will the proposal protect Water Quality and River Flow Objectives where they are currently achieved in the ambient waters; and

  b) will the proposal contribute towards the achievement of Water Quality and River Flow Objectives over time, where they are not currently achieved in the ambient waters.

- Consult with the EPA as soon as possible if a mixing zone is proposed (a mixing zone could exist where effluent is discharged into a receiving water body, where the quality of the water being discharged does not immediately meet water quality objectives. The mixing zone could result in dilution, assimilation and decay of the effluent to allow water quality objectives to be met further downstream, at the edge of the mixing zone). The EPA will advise the proponent under what conditions a mixing zone will and will not be acceptable, as well as the information and modelling requirements for assessment.

Note: The assessment of water quality impacts needs to be undertaken in a total catchment management context to provide a wide perspective on development impacts, in particular cumulative impacts.

- Where a licensed discharge is proposed, provide the rationale as to why it cannot be avoided through application of a reasonable level of performance, using available technology, management practice and industry guidelines.
- Where a licensed discharge is proposed, provide the rationale as to why it represents the best environmental outcome and what measures can be taken to reduce its environmental impact.
- Reference should be made to *Managing Urban Stormwater: Soils and Construction* (Landcom, 2004), *Guidelines for Fresh and Marine Water Quality* ANZECC 2000), *Environmental Guidelines: Use of effluent by Irrigation* (DEC, 2004).

Describe management and mitigation measures

- Outline stormwater management to control pollutants at the source and contain them within the site. Also describe measures for maintaining and monitoring any stormwater controls.
- Outline erosion and sediment control measures directed at minimising disturbance of land, minimising water flow through the site and filtering, trapping or detaining sediment. Also include measures to maintain and monitor controls as well as rehabilitation strategies.
- Describe waste water treatment measures that are appropriate to the type and volume of waste water and are based on a hierarchy of avoiding generation of waste water; capturing all contaminated water (including stormwater) on the site; reusing/recycling waste water; and treating any unavoidable discharge from the site to meet specified water quality requirements.
- Outline pollution control measures relating to storage of materials, possibility of accidental spills (e.g. preparation of contingency plans), appropriate disposal methods, and generation of leachate.
- Describe hydrological impact mitigation measures including:
  a) site selection (avoiding sites prone to flooding and waterlogging, actively eroding or affected by deposition)
  b) minimising runoff
  c) minimising reductions or modifications to flow regimes
  d) avoiding modifications to groundwater.
- Describe groundwater impact mitigation measures including:
  a) site selection
  b) retention of native vegetation and revegetation
  c) artificial recharge
  d) providing surface storages with impervious linings
  e) monitoring program.
- Describe geomorphological impact mitigation measures including:
  a) site selection

b) erosion and sediment controls

c) minimising instream works

d) treating existing accelerated erosion and deposition

e) monitoring program.

- Any proposed monitoring should be undertaken in accordance with the *Approved Methods for the Sampling and Analysis of Water Pollutants in NSW* (DEC 2004).

5. Soils and contamination

Describe baseline conditions

- Provide any details (in addition to those provided in the location description - Section C) that are needed to describe the existing situation in terms of soil types and properties and soil contamination.

Assess impacts

- Identify any likely impacts resulting from the construction or operation of the proposal, including the likelihood of:

  a) disturbing any existing contaminated soil

  b) contamination of soil by operation of the activity

  c) subsidence or instability

  d) soil erosion

  e) disturbing acid sulfate or potential acid sulfate soils.

- Reference should be made to *Contaminated Sites – Guidelines for Consultants Reporting on Contaminated Sites* (OEH, 2011)*; Guidelines on the Duty to Report Contamination under the Contaminated Land Management Act 1997* (EPA, 2015).

Describe management and mitigation measures

- Describe and assess the effectiveness or adequacy of any soil management and mitigation measures during construction and operation of the proposal including:

  a) erosion and sediment control measures

  b) proposals for site remediation – see *Managing Land Contamination, Planning Guidelines SEPP 55 – Remediation of Land* (Department of Urban Affairs and Planning and Environment Protection Authority, 1998)

  c) proposals for the management of these soils – see *Acid Sulfate Soil Manual* (Acid Sulfate Soil Advisory Committee 1998) and *Acid Sulfate Soils Assessment Guidelines* (Acid Sulfate Soil Advisory Committee 1998).

6. Waste and chemicals

Describe baseline conditions

- Describe any existing waste or chemicals operations related to the proposal.

Assess impacts

- Assess the adequacy of proposed measures to minimise natural resource consumption and minimise impacts from the handling, transporting, storage, processing and reprocessing of waste and/or chemicals.
- Reference should be made to: the EPA's *Waste Classification Guidelines 2014 (as in force from time to time)*
- If the proposal is an energy from waste facility it must:
    - demonstrate that the proposed operation will comply with the NSW EPA's Energy from Waste Policy Statement;
    - describe of the classes and quantities of waste that would be thermally treated at the facility;
    - demonstrate that waste used as a feedstock in the waste to energy plant would be the residual from a resource recovery process that maximises the recovery of material;
    - detail procedures that would be implemented to control the inputs to the waste to energy plant, including contingency measures that would be implemented if inappropriate materials are identified;
    - detail the location and size of stockpiles of unprocessed and processed recycled waste at the site;
    - demonstrate any waste material (e.g. biochar, ash) produced from the waste to energy facility for land application is fit-for-purpose and poses minimal risk of harm to the environment in order to meet the requirements for consideration of a resource recovery order and /or exemption by the EPA;
    - detail procedures for the management of other solid, liquid and gaseous waste streams;
    - describe how waste would be treated, stored, used, disposed and handled on site, and transported to and from the site, and the potential impacts associated with these issues, including current and future offsite waste disposal methods; and
    - identify the measures that would be implemented to ensure that the development is consistent with the aims, objectives and guidance in the *NSW Waste Avoidance and Resource Recovery Strategy 2014-21*.

Describe management and mitigation measures

- Outline measures to minimise the consumption of natural resources.
- Outline measures to avoid the generation of waste and promote the re-use and recycling and reprocessing of any waste.
- Outline measures to support any approved regional or industry waste plans.

7. Cumulative impacts

- Identify the extent that the receiving environment is already stressed by existing development and background levels of emissions to which this proposal will contribute.
- Assess the impact of the proposal against the long term air, noise and water quality objectives for the area or region.
- Identify infrastructure requirements flowing from the proposal (e.g. water and sewerage services, transport infrastructure upgrades).
- Assess likely impacts from such additional infrastructure and measures reasonably available to the proponent to contain such requirements or mitigate their impacts (e.g. travel demand management strategies).

F. List of approvals and licences

- Identify all approvals and licences required under environment protection legislation including details of all scheduled activities, types of ancillary activities and types of discharges (to air, land, water).

G. Compilation of mitigation measures

- Outline how the proposal and its environmental protection measures would be implemented and managed in an integrated manner so as to demonstrate that the proposal is capable of complying with statutory obligations under EPA licences or approvals (e.g. outline of an environmental management plan).
- The mitigation strategy should include the environmental management and cleaner production principles which would be followed when planning, designing, establishing and operating the proposal. It should include two sections, one setting out the program for managing the proposal and the other outlining the monitoring program with a feedback loop to the management program.

H. Justification for the Proposal

- Reasons should be included which justify undertaking the proposal in the manner proposed, having regard to the potential environmental impacts.

ATTACHMENT B: GUIDANCE MATERIAL

Title	Web address
Relevant Legislation	
Contaminated Land Management Act 1997	http://www.legislation.nsw.gov.au/#/view/act/1997/140
Environmentally Hazardous Chemicals Act 1985	http://www.legislation.nsw.gov.au/#/view/act/1985/14
Environmental Planning and Assessment Act 1979	http://www.legislation.nsw.gov.au/#/view/act/1979/203
Protection of the Environment Operations Act 1997	http://www.legislation.nsw.gov.au/#/view/act/1997/156
Water Management Act 2000	http://www.legislation.nsw.gov.au/#/view/act/2000/92
Licensing	
Guide to Licensing	www.epa.nsw.gov.au/licensing/licenceguide.htm
Air Issues	
Air Quality	
Approved methods for modelling and assessment of air pollutants in NSW (2016)	http://www.epa.nsw.gov.au/air/appmethods.htm
POEO (Clean Air) Regulation 2010	http://www.legislation.nsw.gov.au/#/view/regulation/2010/428
Noise and Vibration	
NSW Noise Policy for Industry	http://www.epa.nsw.gov.au/your-environment/noise/industrial-noise/noise-policy-for-industry-(2017)
Interim Construction Noise Guideline (DECC, 2009)	http://www.epa.nsw.gov.au/noise/constructnoise.htm
Assessing Vibration: a technical guideline (DEC, 2006)	http://www.epa.nsw.gov.au/noise/vibrationguide.htm
NSW Road Noise Policy (DECCW, 2011)	http://www.epa.nsw.gov.au/your-environment/noise/transport-noise
NSW Rail Infrastructure Noise Guideline (EPA, 2013)	http://www.epa.nsw.gov.au/your-environment/noise/transport-noise
Human Health Risk Assessment	

Environmental Health Risk Assessment: Guidelines for assessing human health risks from environmental hazards (enHealth, 2012)	http://www.eh.org.au/documents/item/916
Waste, Chemicals and Hazardous Materials and Radiation	
Waste	
Environmental Guidelines: Solid Waste Landfills (EPA, 2016)	http://www.epa.nsw.gov.au/waste/landfill-sites.htm
Draft Environmental Guidelines - Industrial Waste Landfilling (April 1998)	http://www.epa.nsw.gov.au/resources/waste/envguidlns/industrialfill.pdf
EPA's Waste Classification Guidelines 2014	http://www.epa.nsw.gov.au/wasteregulation/classify-guidelines.htm
Resource recovery orders and exemptions	http://www.epa.nsw.gov.au/wasteregulation/orders-exemptions.htm
European Unions Waste Incineration Directive 2000	http://ec.europa.eu/environment/archives/air/stationary/wid/legislation.htm
EPA's Energy from Waste Policy Statement	http://www.epa.nsw.gov.au/wastestrategy/energy-from-waste.htm
NSW Waste Avoidance and Resource Recovery Strategy 2014-2021	http://www.epa.nsw.gov.au/wastestrategy/warr.htm
Chemicals subject to Chemical Control Orders	
Chemical Control Orders (regulated through the EHC Act)	http://www.epa.nsw.gov.au/pesticides/CCOs.htm
National Protocol - Approval/Licensing of Trials of Technologies for the Treatment/Disposal of Schedule X Wastes - July 1994	Available in libraries
National Protocol for Approval/Licensing of Commercial Scale Facilities for the Treatment/Disposal of Schedule X Wastes - July 1994	Available in libraries
Water and Soils	
Acid sulphate soils	
Coastal acid sulfate soils guidance material	http://www.environment.nsw.gov.au/acidsulfatesoil/ and http://www.epa.nsw.gov.au/mao/acidsulfatesoils.htm
Acid Sulfate Soils Planning Maps	http://www.environment.nsw.gov.au/acidsulfatesoil/riskmaps.htm
Contaminated Sites Assessment and Remediation	
Managing land contamination: Planning Guidelines – SEPP 55 Remediation of Land	http://www.epa.nsw.gov.au/clm/planning.htm

Guidelines for Consultants Reporting on Contaminated Sites (EPA, 2000)	http://www.epa.nsw.gov.au/resources/clm/20110650consultantsglines.pdf
Guidelines for the NSW Site Auditor Scheme - 2nd edition (DEC, 2006)	http://www.epa.nsw.gov.au/resources/clm/auditorglines06121.pdf
Sampling Design Guidelines (EPA, 1995)	http://www.epa.nsw.gov.au/resources/clm/95059sampgdlne.pdf
National Environment Protection (Assessment of Site Contamination) Measure 1999 (or update)	http://www.scew.gov.au/nepms/assessment-site-contamination
Soils – general	
Managing land and soil	http://www.environment.nsw.gov.au/soils/landandsoil.htm
Managing urban stormwater for the protection of soils	http://www.environment.nsw.gov.au/stormwater/publications.htm
Landslide risk management guidelines	http://australiangeomechanics.org/admin/wp-content/uploads/2010/11/LRM2000-Concepts.pdf
Site Investigations for Urban Salinity (DLWC, 2002)	http://www.environment.nsw.gov.au/resources/salinity/booklet3siteinvestigationsforurbansalinity.pdf
Local Government Salinity Initiative Booklets	http://www.environment.nsw.gov.au/salinity/solutions/urban.htm
Water	
Water Quality Objectives	http://www.environment.nsw.gov.au/ieo/index.htm
ANZECC (2000) Guidelines for Fresh and Marine Water Quality	http://www.environment.gov.au/water/publications/quality/nwqms-guidelines-4-vol1.html
Applying Goals for Ambient Water Quality Guidance for Operations Officers - Mixing Zones	Contact the EPA on 131555
Approved Methods for the Sampling and Analysis of Water Pollutant in NSW (2004)	http://www.environment.nsw.gov.au/resources/legislation/approvedmethods-water.pdf

Our reference: DOC21/502247
Date: 28 June 2021

HERITAGE NSW – Aboriginal Cultural Heritage - SEARs

Project Name: Kurri Kurri Lateral Pipeline Project
SSD#: 22338205

1. The EIS must identify and describe the Aboriginal cultural heritage values that exist across the whole area that will be affected by the development and document these in an Aboriginal Cultural Heritage Assessment Report (ACHAR). This may include the need for surface survey and test excavation. The identification of cultural heritage values must be conducted in accordance with the Code of Practice for Archaeological Investigation in NSW (DECCW 2010), and be guided by the Guide to Investigating, Assessing and Reporting on Aboriginal Cultural Heritage in New South Wales (OEH 2011).
2. Consultation with Aboriginal people must be undertaken and documented in accordance with the Aboriginal Cultural Heritage Consultation Requirements for Proponents (DECCW 2010). The significance of cultural heritage values for Aboriginal people who have a cultural association with the land must be documented in the ACHAR.
3. Impacts on Aboriginal cultural heritage values are to be assessed and documented in the ACHAR. The ACHAR must demonstrate attempts to avoid impact upon cultural heritage values and identify any conservation outcomes. Where impacts are unavoidable, the EIS must outline measures proposed to mitigate impacts. Any objects recorded as part of the assessment must be documented and notified to Heritage NSW.
4. The assessment of Aboriginal cultural heritage values must include a surface survey undertaken by a qualified archaeologist. The result of the surface survey is to inform the need for targeted test excavation to better assess the integrity, extent, distribution, nature and overall significance of the archaeological record. The results of surface surveys and test excavations are to be documented in the ACHAR.
5. The ACHAR must outline procedures to be followed if Aboriginal objects are found at any stage of the life of the project to formulate appropriate measures to manage unforeseen impacts.
6. The ACHAR must outline procedures to be followed in the event Aboriginal burials or skeletal material is uncovered during construction to formulate appropriate measures to manage the impacts to this material.

NOTE: The process described in the *Due Diligence Code of Practice for the protection of Aboriginal objects in NSW* (DECCW 2010) is not sufficient to assess the impacts on Aboriginal cultural heritage of Major Projects.

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NSW GOVERNMENT | Heritage NSW

Our ref: HMS ID 156

Mandana Mazaheri
Planner
Department of Planning Industry & Environment
GPO BOX 404, PARRAMATTA NSW 2124

By email: mandana.mazaheri@planning.nsw.gov.au

Dear Ms Mazaheri

Request for Secretary's Environmental Assessment Requirements (SEARS) for Kurri Kurri Lateral Pipeline Project (SSD 22338205)

Thank you for your referral dated 25 June 2021 inviting SEARS input from the Heritage Council of NSW on the above State Significant Development (SSD) proposal.

The proposal involves the following components:

- A buried, steel, medium diameter (approximately 14 inch), medium pressure transmission pipeline of approximately 17 to 21 kilometres in length to provide a gas supply from the existing Sydney to Newcastle pipeline (Plumpton to Hexham Northern Trunk) to the Hydro Australia Pty Ltd (Hydro) aluminium smelter at Kurri Kurri.
- A compressor station at the termination of the transmission pipeline to boost gas pressure to the required inlet pressure of the HPP.
- A buried, steel, large diameter (approximately 42 inch), high pressure storage pipeline of up to 14 kilometres in total length downstream of the compressor station.

The proposed SSD 22338205 proposal, Kurri Kurri Lateral Pipeline Project, NSW, is not listed on the State Heritage Register nor is it located within a heritage conservation area. There are no items listed on the State Heritage Register within the vicinity of the SSD 22338205 proposal.

It is recommended that the draft SEARs are amended as recommended:

Heritage and archaeology

a) A Statement of Heritage Impact (SOHI) prepared by a suitably qualified heritage consultant in accordance with the guidelines in the NSW Heritage Manual. The SOHI is to address the impacts of the proposal on the heritage significance of the site and adjacent areas and is to identify the following:

- all heritage items (state and local) within the vicinity of the site including built heritage, landscapes and archaeology, detailed mapping of these items, and assessment of why the items and site(s) are of heritage significance;
- compliance with the relevant Conservation Management Plan;
- the impacts of the proposal on heritage item(s) including visual impacts, required BCA and DDA works, new fixtures, fittings and finishes, any modified services;
- the attempts to avoid and/or mitigate the impact on the heritage significance or cultural heritage values of the site and the surrounding heritage items; and

- justification for any changes to the heritage fabric or landscape elements including any options analysis.

b) If the SOHI identifies impact on potential historical and/or maritime archaeology, an historical and/or maritime archaeological assessment should be prepared by a suitably qualified archaeologist in accordance with the guidelines *Archaeological Assessment* (1996) and *Assessing Significance for Historical Archaeological Sites and Relics* (2009). This assessment should identify what relics, if any, are likely to be present, assess their significance and consider the impacts from the proposal on this potential archaeological resource. Where harm is likely to occur, it is recommended that the significance of the relics be considered in determining an appropriate mitigation strategy. If harm cannot be avoided in whole or part, an appropriate Research Design and Excavation Methodology should also be prepared to guide any proposed excavations or salvage programme.

As the site contains a local heritage item, and other local items are in the vicinity, advice should be sought from the relevant local council.

If you have any questions regarding the above advice, please contact Josh Madden, Senior Historical Archaeologist, at Heritage NSW on 9873 8512 or josh.madden@environment.nsw.gov.au.

Yours sincerely

S Lavelle

Dr Siobhan Lavelle OAM
Senior Team Leader
Specialist Services
Heritage NSW Department of Premier and Cabinet
As Delegate of the Heritage Council of NSW
29 June 2021

Hunter Water Corporation
ABN 46 228 513 446

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30 June 2021

HW Ref: HW2017-1215/18/2
Your Ref: SSI - 22338205

NSW Planning Industry and Environment
submitted via the Major Projects Portal

Attention: Mandana Mazaheri

Dear Mandana

SEARs comments on proposed State Significant Infrastructure (SSI 22338205)
Kurri Kurri Lateral Pipeline Project

I refer to your request dated 18 June 2021, in which you sought Hunter Water Corporation's (Hunter Water) comments on the Secretary's Environmental Assessment Requirements (SEARs) relating to the Kurri Kurri Lateral Pipeline Project.

Hunter Water has reviewed the details of the proposal as provided by the Department of Planning, Industry and Environment. Hunter Water acknowledges that the Proponent, APA Transmission Pty Ltd, met with Hunter Water on the 31 March 2021, to provide a preliminary briefing of the Project.

Hunter Water acknowledges the requirement for the Proponent to consult with relevant stakeholders and wish to register an interest in the proposal and requests the Proponent undertake further consultation.

Hunter Water has determined that the Project has potential to impact our assets and land holdings depending on the route of the pipeline. The Proponents preferred alignment, being the northern alignment, runs parallel with the Chichester Trunk Gravity Main (CTGM) which provides the principal water supply to all developed areas to the west making up approximately 20% of our customer base.

Various other assets may also be impacted and may require site specific protection measures.

In this regard, the Proponent is advised of the following legislative and policy provisions which are relevant to Hunter Water:

- Section 25(1) (a) of the *Hunter Water Act 1991* (the Act) which articulates Hunter Water's legislative provisions with respect to interference with works. A copy of this section of the Act is attached for your information; and
- Compliance with Hunter Water's *Policy and Guidelines for Building Over or Encroaching on Hunter Water Easements or Property* (attached).

<u>Asset Protection</u>

Hunter Water will only permit construction activities near our assets provided these activities do not impact on the structural integrity, safety or accessibility to the assets for maintenance. Depending on the potential impacts, the Proponent may need to undertake Specialist Engineering Assessment(s) to determine and mitigate any impacts with reference to:

- The details of the proposed works.
- The construction methodology and sequence to ensure the assets are not damaged or compromised.
- A contingency plan for failure of the assets.
- The details of heavy construction equipment to be used in the construction, if any.
- The location, depth and as-constructed details of the assets in the vicinity of the works.
- An appraisal of the existing condition of the assets.
- The details of any temporary or permanent protection works required to safeguard the assets from damage.
- An appraisal of the impact of the proposed temporary and permanent works on the assets using the appropriate site investigation, engineering modelling or analysis method as necessary.
- A contaminated soil assessment.
- A risk assessment of potential impacts of a failure of the assets and any mitigations required to protect persons and property. The key risks to be considered include;
    - Direct impact on person or property from the explosive nature an asset failure.
    - Direct impacts to person or property in the overland water flow path during a failure.
    - Direct impacts including undermining and flooding of property or structures in, or immediately adjacent to, the water flow path.

The Assessment would need be carried out by a Chartered Professional Engineer of the Institution of Engineers Australia with appropriate expertise and experience. The engineer must seek expert specialist advice such as geotechnical and other areas as required by the works.

The Assessment should be submitted to Hunter Water for review prior to any works commencing on the site.

The Assessment should be incorporated into the Construction and Environmental Management Plan for the works.

Land Access

Prior to undertaking any construction activities on Hunter Water's freehold title land, the Proponent will need to obtain a Landowner Consent from Hunter Water and meet all conditions of this Consent. Hunter Water will not issue the Landowner Consent until we are satisfied all the Asset Protection requirements have been met.

Prior to entering Hunter Water's land the Proponent is to obtain a License Agreement from Hunter Water to access our land for undertaking the necessary investigation works.

The Proponent is to obtain approval from Hunter Water for any construction activities proposed to be undertaken within Hunter Water's easements.

To facilitate the SEAR's consultation process and ensure our concerns are adequately addressed, Hunter Water requests that the Proponent be required to submit a Development Application with Hunter Water in accordance with Section 49 of the Hunter Water Act 1991 (the Act).

Further, Hunter Water requests that the Proponent obtain a Compliance Certificate under Section 50 of the Act prior to final approval of the Environmental Impact Statement.

2

Thank you for the opportunity to provide comment on the proposal. In the event it is proposed to issue consent to the SSI, Hunter Water requests a further opportunity to provide comment and input to the approval process.

Should you have any further enquiries please contact me.

Yours faithfully

BARRY CALDERWOOD
Account Manager Major Development

Tel: 02 4979 9721
Mobile: 0437 720 845
Email: barry.calderwood@hunterwater.com.au

Attachment: Section 25, Hunter Water Corporation Act 1991

Interference with works

(1) Land in or on which a work of the Corporation is installed is taken to be the subject of an agreement in the nature of a covenant in favour of the Corporation pursuant to which the owner from time to time of land in or on which the work is installed must ensure that:

(a) the work or any structure owned by, or under the control or management of, the Corporation is not wilfully or negligently destroyed, damaged or interfered with, and

(b) the Corporation and authorised persons are not delayed or obstructed in and about the taking, in relation to the work, of any of the steps referred to in section 19 (2), and

(c) no structure is placed in, on or near the work in a manner that interferes with the operation of the work, and

(d) ground is not opened to expose any pipe or other work of the Corporation without reasonable excuse, or the consent of the Corporation, and without giving the Corporation at least 2 days' written notice of intention to open the ground unless that requirement is waived by the Corporation.

4

POLICY AND GUIDELINES
FOR
BUILDING OVER OR ENCROACHING ON
HUNTER WATER EASEMENTS OR PROPERTY

POLICY SUMMARY

Hunter Water may permit encroachment onto our easements, our land or building over significant assets like storm water channels or major water mains where the encroachment does not impact:

- safety
- accessibility to Hunter Water's asset for maintenance, replacement, etc
- costs and time required for Hunter Water to access and maintain its asset
- the design functionality of Hunter Water's asset.

Where encroachments over stormwater channels are permitted, in addition to meeting the above, the applicant will be required to lodge an enduring indemnity with Hunter Water. Hunter Water will need to consider the underlying financial resources supporting the indemnities and may require appropriate third party support to be in place which specifically recognise the indemnity.

In accordance with the IPART approved fees and charges, the applicant is required to pay an initial application fee, and where deemed necessary, pay by agreement an hourly rate for more detailed assessment of the development proposal. A site specific investigation of the circumstances, operating environment and the current and likely future access constraints will be undertaken by Hunter Water.

Where Hunter Water considers our requirements can be realistically satisfied a conditional approval may be offered. Where Hunter Water considers the development proposal unacceptable, the proposal will be refused.

In addition to recovery of costs a commercial fee for use may also be sought.

BACKGROUND

Hunter Water seeks to protect certain assets and public safety by means of either acquiring land, or an easement over the land, in which the asset is contained.

Major structures such as reservoirs, pump stations and treatment plants have generally been constructed on lands acquired by Hunter Water. For water mains, sewer mains and storm water systems, both property and easement acquisition are used as a means of protecting access for maintenance, operation and replacement activities.

Previously, varying types of encroachments have occurred over Hunter Water property, easements and assets. Over time Hunter Water has learnt from many of these examples that despite the best endeavours, Hunter Water has faced severe limitations to access, operate and maintain or replace these assets. Prior examples, therefore, are not to be necessarily taken to be acceptable design and construction practice for today.

Any application for permission to encroach on Hunter Water property or easements should be made in accordance with the following requirements: -

ASSESSMENT PROCEDURE

1. Payment of a Preliminary Assessment Fee and Detailed Assessment Fee

In accordance with the IPART approved fees and charges, the applicant is required to pay a preliminary assessment fee. Where deemed necessary the applicant, shall pay by agreement an additional hourly rate for more detailed assessment of the development proposal. The current value of the fees mentioned above can be supplied upon request.

2. Assessment Considerations

The following general principles will be considered when conducting a review of any application to build over or encroach on Hunter Water property or easements: -

(i) Maintenance/Replacement/Augmentation Requirements

The proposal must not diminish Hunter Water's ability to access the asset for operation, maintenance or asset replacement purposes.

The proposal must not increase the risk to public safety either because of the proposed work or from failure of our services.

The proposal must not be exposed to damage as a result of the failure of our services.

Where a structure is proposed to be placed over an easement, property or asset, a minimum vertical clearance of 5.5 metres is likely to be imposed to facilitate access of plant (tracked excavators or similar) for future maintenance or replacement.

Horizontal clearances may also be required, however, these will be determined in relation to the site specific needs of Hunter Water.

Structures at ground level must be easily dismantled to facilitate unimpeded and urgent access to Hunter Water's assets for operation, maintenance or replacement activities to be carried out. Removal and replacement of any approved structure will be at the owner's cost.

The proposal must not create a safety issue for Hunter Water's staff or increase the replacement/maintenance cost or the replacement/maintenance technique of the Hunter Water asset in the corridor.

The proximity of existing or proposed buildings to easement or property boundaries will be considered in the context of ease of access for repair or replacement of the assets concerned.

(ii) Liability

Structures proposed to be placed over Hunter Water assets, easements or property, have the potential to impede asset functionality, cause damage to property and/or other consequential losses. To protect Hunter Water, the asset or land owner as deemed appropriate by Hunter Water, shall continuously indemnify Hunter Water from any claim resulting from the presence of the built form of the additional structure.

Where Hunter Water may incur any additional liability as a result of any structure being built on Hunter Water land or within an easement, approval will only be granted where ongoing indemnity, binding on current and subsequent owners, is provided to Hunter Water.

In considering the indemnity, Hunter Water will need to be satisfied there are likely to be sufficient financial resources supporting the indemnity in the event a liability arises. Hunter Water may require appropriate third party support to be maintained which specifically recognise the indemnity. The value of the indemnity may vary depending on the type of structure proposed.

The amount of insurances or indemnities may need to be increased over time to reflect inflation and any change in risk exposure that may occur.

In the event the indemnity and/or insurance is not maintained, Hunter Water will have the right to require the removal of the structure.

Hunter Water will require the payment of legal costs incurred to prepare agreements to accommodate the specific circumstances of individual structures over the stormwater channel.

(iii) Access

Proposed structures over a property, easements or assets of Hunter Water shall not create 'confined spaces', further restricting access for the operation, maintenance or replacement activities of Hunter Water and presenting a potential safety risk for Hunter Water staff.

A confined space may result where the enclosure of space over an asset such as a storm water channel occurs.

Conditional approval may be granted where the proposed structure does not create an area that would be deemed to be a confined space due to the presence of the structure.

3. Guidelines for Permissible Structures

Structures that would generally meet the requirements of this policy are those that can be relocated or removed within a short time to facilitate emergency repairs. This will generally be restricted to structures such as: -

- Garden sheds no larger than 3m x 3m
- Driveways
- Car parks (removable panels)
- Footpaths
- Retractable awnings
- Fences constructed from removable panels
- Playground equipment not permanently fixed to the ground that can be lifted by two people
- Gardens beds containing vegetation no higher than 2m.

The removal and reinstatement of any structure will be at full cost to the asset owner.

4. Specific Information Required for Assessment

Any application to encroach on Hunter Water land or easements will need to be supported by detailed information sufficient to allow for a thorough review. This will generally include: -

- Site plan
- Detail of the proposed structure(s) and all appurtenances
- Proposed method of indemnity
- Flood study and engineers design where structures are proposed over storm water channels.
- Justification of how the proposal satisfies this policy.

5. Right of Refusal

In all circumstances Hunter Water reserves the right to refuse encroachment over our easements, property or assets.

6. Right to Rescind or Limit Approval to Current Owner

Hunter Water reserves the right to rescind any permission granted or limit permission to the current owner/occupier of the property.

Regional NSW

Our ref: DOC21/532541
Your ref: SSI 22338205

Mandana Mazaheri

Principle Planning Officer

Energy Resource Assessment

Dept of Planning, Industry and Environment

4 Parramatta Square, NSW 2124

Emailed: via planning portal

6 July 2021

Dear Mandana,

Subject: Kurri Kurri Lateral Pipeline Project – SSI 22338205 – SEARs.

Thank you for the opportunity to provide advice on the above matter. This is a response from the NSW Department of Regional NSW – Mining, Exploration and Geoscience (MEG) – Geological Survey of NSW (GSNSW).

MEG has reviewed the Scoping Report and notes that the proposed pipeline corridors traverse multiple coal exploration licences and mining leases. We request that the proponent consult with the relevant mineral resource titleholders as identified in section 5.2 of the Scoping Report. This should include written notification of the proposal to the title holders including a map indicating the proposal area. To assist, current mining and exploration titles and applications can be viewed through the Department's *MinView* map viewer at: https://www.resourcesandgeoscience.nsw.gov.au/miners-and-explorers/geoscience-information/services/online-services/minview.

MEG also requests consultation on the location of any future potential offset areas (should they be required) in order to avoid any potential resource sterilisation.

Queries regarding the above information should be directed to the MEG - Land Use team at landuse.minerals@geoscience.nsw.gov.au.

Yours sincerely,

Steven Palmer

Manager, Land Use Assessment

Geological Survey of NSW – Mining, Exploration and Geoscience.

CR2021/002762
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07 July 2021

Department of Planning, Industry and Environment
Industry Assessments
PO Box 39
Sydney NSW 2001

Attn: Mandana Mazaheri

SSI-22338205: **SEARS REQUEST - KURRI KURRI LATERAL PIPELINE PROJECT – BETWEEN NORTHERN END OF SYDNEY TO NEWCASTLE PIPELINE (PLUMPTON TO HEXHAM NORTHERN TRUNK) & PROPOSED HUNTER POWER PROJECT (KURRI KURRI POWER STATION)**

On 18 June 2021 Transport for NSW (TfNSW) accepted the referral by the Department of Planning, Industry and Environment (DPIE) through the Planning Portal regarding the abovementioned application. DPIE referred the application to TfNSW for comment. This letter is a submission in response to that referral.

TfNSW's primary interests are in the road network, traffic and broader transport issues. In particular, the efficiency and safety of the classified road network, the security of property assets and the integration of land use and transport.

TfNSW have reviewed the referral and the Scoping Report: Kurri Kurri Lateral Pipeline for APA Group (APA) by GHD and dated 11 June 2021, and the draft Secretary's Environmental Assessment Requirements (SEARS). It is understood that the proposal refers to the development of a gas supply solution for the proposed Hunter Power Project (HPP) near Kurri Kurri NSW. The HPP is designated as critical State Significant Infrastructure (SSI) and is subject to a separate application (SSI 12590060) under the *Environmental Planning and Assessment Act 1979* (EP&A Act). It is understood the proposal currently involves:

- A buried, steel, medium diameter (approx. 14 inch), medium pressure (up to 7 MPa) transmission pipeline approximately 17 to 21 kilometres in length to provide a gas supply from the existing Sydney to Newcastle pipeline (Plumpton to Hexham Northern Trunk) to the HPP at Kurri Kurri.

- A compressor station at the HPP termination of the transmission pipeline.

- A buried, steel, large diameter (approx. 42 inch), high pressure storage pipeline of up to 14 kilometres in total length downstream of the compressor station, adjacent to the HPP site.

- APA have identified three (3) potential corridors (400m in width) between the Sydney to Newcastle Pipeline and the HPP within which to locate the final transmission pipeline alignment and associated 25m wide construction footprint. Each potential corridor crosses State Classified Roads including the Hunter Expressway (6011), the Pacific Motorway (6003), John Renshaw Drive (MR588) and Main Road (MR195 Maitland – Kurri Kurri).

TfNSW response and requirements

TfNSW recommends that the Environmental Impact Statement (EIS) should refer to the following guidelines with regard to the traffic and transport impacts of the proposed development:

- *Roads Act 1993*, particularly Sections 7 (roads authorities) and 138 (consent to works).

- The *Roads and Related Facilities EIS Guideline* (NSW Government, 1996)

Furthermore, an Integrated Transport Assessment (ITA) is to be prepared in accordance with the *Austroads Guide to Traffic Management Part 12: ITAs for Developments* (2020) and the Roads and Traffic Authority's (RTA) *Guide to Traffic Generating Developments* (2002). It is to include (but not be limited to) the following:

- Assessment of all relevant vehicular traffic routes and intersections for access to / from the subject sites.

- Operational schedule:
  - Hours and days of work, number of shifts and start and end times,
  - Proposed hours for transportation and haulage of components and materials, and
  - Phases and stages of the project, including construction, operation and decommissioning.

- Current traffic counts and peak periods for all of the traffic routes and intersections.

- The distribution on the road network of the trips generated by the proposed development. It is requested that the predicted traffic flows are shown diagrammatically to a level of detail sufficient for easy interpretation.

- The anticipated additional vehicular traffic generated from both the construction and operational stages of the project.

- Any changes or additional origins, destinations and routes for heavy (haulage) vehicles.

- Consideration of the traffic impacts on existing intersections and the capacity of the local and classified road network to safely and efficiently cater for the additional vehicular traffic generated by the proposed development during each project phase (construction, operation and decommissioning). The traffic impact shall include an assessment of the cumulative impact with other proposed or approved developments in the area.

- Where network efficiency may be impacted, analysis and modelling (using SIDRA or similar software), including:
  - Interactions between existing and development-related traffic,
  - 95th percentile back of queue lengths,
  - Delays and level of service on all relevant intersections and
  - Detailed output reports for TfNSW review.

- Identify the necessary road network infrastructure upgrades that are required to provide access (temporary or permanent) and maintain existing levels of service on both the local and classified road network for the development. In this regard, preliminary concept drawings shall be submitted with the EIS for any identified road infrastructure upgrades. However, it should be noted that any identified road infrastructure upgrades will need to be to the satisfaction of TfNSW and relevant Councils.

- Proposed road facilities, access and intersection treatments are to be identified and be in accordance with Austroads Guide to Road Design including provision of Safe Intersection Sight Distance (SISD).

- Local climate conditions that may affect road safety during the life of the project (fog, wet and dry weather, icy road conditions).

- Propose a Traffic Management Plan (TMP) to be developed following approval of the EIS, in consultation with Councils and TfNSW. The TMP should identify strategies to manage the impacts of project related traffic, including any community consultation measures for peak haulage periods.

- Propose a Driver Code of Conduct for haulage operations which could include, but not be limited to:
  - Safety initiatives for haulage through residential areas and/or school zones.
  - An induction process for vehicle operators and regular toolbox meetings.
  - A public complaint resolution and disciplinary procedure.

- Any other impacts on the classified Regional and State road network including consideration of pedestrian, cyclist and public transport facilities and provision for service vehicles.

- Details of any measures proposed to manage and / or mitigate impacts as a result of the proposal identified in the traffic and transport study.

- Proposed crossings of TfNSW State Roads to be by trenchless methodologies and be encased minimum 1.5m beyond pavement and installed perpendicular to TfNSW State Road centreline.

- Any crossings of the M1 Pacific Motorway or Hunter Expressway to have minimum 3m cover (including encasement), minimum cover to any other TfNSW State Road to be 1.5m (including encasement).

- If any utility is to be installed other than a crossing within the TfNSW Freeway Road reserves (M1 Pacific Motorway or Hunter Expressway) an Access Deed will need to be entered into.

- All works within TfNSW State Road Reserve will require Roads Act Section 138 Consent

- In addition TfNSW major projects in vicinity of works will need to be consulted being, M1 to Raymond Terrace, Black Hill Development MR588 intersection works, MR195 Testers Hollow.

Transport for NSW appreciates the opportunity to contribute to the SEARs. On determination of this matter, please forward a copy to TfNSW for record and / or action purposes. Should you require further information please contact Venessa Green, Case Officer on 02 4908 7688 or by emailing development.hunter@rms.nsw.gov.au.

Yours faithfully

Kylie-Anne Pont

Kylie-Anne Pont
A/ Team Leader Development Services
Development Services North