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Dear Mr Heath,

**Re: State Significant Infrastructure (SSI-8609189) – Upper South Creek AWRC –  
Liverpool City Council Submission**

I refer to the request to provide comments on the State Significant Infrastructure - Upper South Creek Advanced Water Recycling Centre (AWRC) (SSI-8609189)

It is understood that the project will comprise the construction and operation of a new Water Recycling Centre and is intended to produce high-quality water suitable for a wide range of non-drinking uses in homes and for industrial uses, businesses, agriculture, watering of open spaces, and release into local waterways for environmental flows purposes.

The project is situated within the Penrith Local Government Area. Notwithstanding this, associated ancillary infrastructure spans across numerous Local Government Areas including the Liverpool LGA. This includes the development of Treated Water Pipelines leading to the Nepean and Warragamba Rivers, and a Brine Pipeline leading to the Malabar waste system.

Being critical infrastructure, the AWRC has an integral role in facilitating development in Liverpool's Growth Areas. Upon review of the EIS, Council staff strongly support the progression of this SSI to ensure critical supporting infrastructure is delivered to support the existing and future population of Western Sydney. However, some issues have been identified and it is requested that consideration be given to the detailed comments and recommendations provided in the attachment of this letter.

The primary concern relates to the noise and vibration impacts associated with the development. In particular, the methodology used to carry out the assessment. Assessment of impacts must be representative of its immediate context; this includes ensuring that residences are considered as a key affected body, and that future developmental plans within the vicinity (which may or may not eventuate) do not wholly compromise assessment of the immediate context.

Council staff also raises concerns regarding the brine pipeline. A re-alignment of the proposed pipeline is recommended to avoid impacts during the construction stage. These include impacts on biodiversity, flooding, water quality, erosion, and sedimentation. Consideration of transport upgrades and initiatives to support the construction and operation of the development are also recommended.

Should you require further information or clarification, please contact Jerard Tungcab, Strategic Planner on 8711 7860.

Sincerely,

A handwritten signature in black ink, appearing to read 'L. Oste', written over a horizontal line.

**Luke Oste**  
Coordinator Strategic Planning

## **Attachment A - Detailed Comments/Recommendations**

### **Strategic Context**

Council staff broadly support this project from a strategic level, as the Upper South Creek AWRC is instrumental in servicing Liverpool's growth areas for recycled water and wastewater. For instance, Austral has limited capacity for wastewater services. Any existing infrastructure would not be able to cope with the demands of the wider precinct. This is especially important given the Austral and Leppington North precincts are developing at a rapid pace beyond what was originally envisioned.

The AWRC is also integral in that it will capture waters from the existing release and Aerotropolis precincts to alleviate sewerage network stresses on the Liverpool treatment plant at Warwick Farm.

### **Biodiversity**

The Biodiversity Development Assessment Report (BDAR) (Appendix J of the EIS) assumes that the *Dillwynia tenuifolia*, *Pultenaea parviflora* var. *parviflora* and Cumberland Plain Land Snail records near the Western Road/Cross Street Kemps Creek locality are located on bio-certified land (as noted in section 8.2.2 on page 192)

Consequently, no threatened species polygons have been identified at this locality and no direct impacts assessed. However, Figure 9.15 (Threatened species surveys and results) indicates that the impact area and many of these threatened species records are on the boundary or in very close proximity to land that is not bio-certified.

It is understood that Sydney Water needs to ensure that plants over the pipeline would not develop root systems that could damage the pipeline in the future (as stated in section 4.9.5 of the EIS). It is also understood that tunneling has not been proposed due to an identified fault line.

### **Biodiversity Recommendations**

It is recommended that:

1. Caution is exercised when considering impacts on individuals within the land that is not bio-certified, given the potential for mapping errors, encroachments and impacts to the local population.
  - a. In accordance with the assumption made in the BDAR, impacts should be avoided within land not biodiversity certified. Appropriate buffers and mitigation measures should be prescribed to ensure that no adverse impacts occur.

- b. Potential impacts to these species at this location should also be specifically addressed within section 11.2 (Indirect Impacts) of the BDAR to ensure that potential impacts to their local population are appropriately considered.
2. Individuals within bio-certified land are avoided where possible to help protect the local population of these species
3. All mitigation measures identified within Table 51 of the BDAR are included as management measures within the EIS, unless otherwise justified.
4. The legends for Figures 9-2h and 9-2i be revised to include threatened species, vegetation zones and bio-certification status as they currently do not include all pertinent map features.
5. For the terrestrial biodiversity management measures (EIS Table 9-17), expand TB06 to include additional measures such as soft tree felling protocols, supervision by an ecologist during vegetation clearing, and measures to avoid fauna becoming trapped in trenches and pits.
6. Pipe depth and designs are sufficient to allow for a fully structured vegetation community to become re-established
7. Feasibility of realignment within identified fault line reduces biodiversity impacts (e.g., feasibility of moving the alignment north to a location near Elizabeth Drive).

### **Contamination**

Council staff have reviewed the submitted Soils and Contaminated Land Impact Assessment prepared by Aurecon Arup dated 27 July 2021. The consultant concludes that overall, with the implementation of the proposed mitigation measures, the project is expected to have a low impact to soils and low contamination risks.

However, it is noted that the degree and extent of contamination has not been addressed to its full extent as the proposal has not been identified in accordance with 'Managing Land Contamination Planning Guidelines SEPP 55- Remediation of Land' (1998).

### **Contamination Recommendations**

It is recommended that:

8. DPIE reviews the proponent's report in its sufficiency in addressing the SEARS:
  - a. Whether the land is likely to be contaminated and identify if remediation of the land is required, having regard to the ecological and human health risks

posed by the contamination in the context of past, existing, and future land uses

- b. Whether the proponent has met the requirement to document how the assessment and/or remediation would be undertaken in accordance with the current guidelines.
9. Ensure that the degree and extent of contamination is identified in accordance with 'Managing Land Contamination Planning Guidelines SEPP 55- Remediation of Land' (1998)

### **Air Quality**

Council staff have reviewed the Air Quality Impact Assessment prepared by Jacobs Group (Australia) Pty Limited dated 15 June 2021. It is concluded that dust mitigation during construction can be minimised to acceptable levels with appropriate environmental safeguards and that odour emissions are to be assessed using the dynamic olfactometry method.

However, the consultant discusses that 'the 4 OU contour will not extend to any existing or potential private sensitive receptors or residential areas. There is potential for the western side of the AWRC site to be opened up as parkland for transient recreational users however the infrequent use, low numbers of people and short durations mean that impacts would be unlikely'.

No discussion was provided with regards to the impact of the 2OU contour when the 100ML/d is processed. Figure D2 - Predicted odour levels at the 99th percentile due to the AWRC (100ML/d) illustrates a greater 2OU area beyond the site boundary will be impacted when the system is operating at full capacity.

### **Air Quality Recommendations**

It is recommended that:

10. Further analysis regarding the impact to future sensitive receivers within the 2OU contour is provided.

### **Noise and Vibration**

Council staff have reviewed the Technical Report Noise and Vibration Impact Assessment prepared by Aurecon and ARUP dated 28 April 2021.

It is noted that the Rated Background Level (RBL) within the area have been determined using noise logger data. Existing receivers identifies the logger as being located approximately 410m from the AWRC site and in very close proximity to Elizabeth Drive. The consultant has provided justification in that 'no significant change to the environment is expected to have occurred since the data was acquired'. However, Elizabeth Drive is identified as a Classified Road, and thus encounters large traffic volumes

Existing and future receivers illustrate that the nearest receivers are located to the north-west of the site. In accordance with the *Noise Policy for Industry* (NPfI) section, the data logger should be sited at the most affected residence/s, and in a location that is truly representative of the noise environment at the residence. Considering this information, it is suggested that readings thus should have been conducted within the open field on, or in very close proximity to the development site and away from Elizabeth Drive.

Due to the increased RBL, the consultant argues the current 'rural' classification is to be assessed as 'urban', based on the predicted increased of traffic noise level (being an additional 5 dB(A) to the RBL) from the future construction and operation of the M12. It is suggested that this approach is not in accordance with the NPfI.

The only exception when considering RBL's and existing noise sources is when the noise source has operated for a significant period and is considered a normal part of the acoustic environment (i.e., the development has been operating more than 10 years). The proponent's assessment of noise should therefore consider the area as it currently exists.

It is noted that without the 5 dB(A) RBL increase resulting from the M12 operations RBL levels would be 40 dB(A), 35 dB(A) and 35dB(A) respectively for the day, evening, and night periods. This calculation includes the minimum assumed RBLs and project intrusiveness noise levels. When applying these RBLs to the predicted operational noise levels (Table 18), compliance at Stage 1 operating with existing receivers at R4, R5, and R6 will not be met during the evening and night-time periods, and R3 when enhanced meteorological conditions are experienced.

### Noise and Vibration Recommendations

It is recommended that:

11. Readings are reconducted within the open field on, or in very close proximity to the development site and away from Elizabeth Drive.



12. An assessment of noise is conducted as it currently exists in consideration, being a rural zone without the additional 5 dB(A) to the RBL resulting from a development that has not yet occurred.
13. A reassessment is undertaken on the operational impacts and whether the development meets the project specific noise trigger levels, due to the existing assessment being based on an inaccurate RBL.
14. A variation of noise mitigation measures, due to the RBL concerns raised, are undertaken at detailed design phase

### **Floodplain and Water Management**

The Treated Water Pipeline will have no impact on waterways within the Liverpool LGA as it will be located outside the LGA boundary. However, the proposed Brine Pipeline will potentially cross the flood detention Basin 3B at Cecil Hills in Liverpool LGA.

### **Floodplain and Water Management recommendations:**

It is recommended that:

15. The proposed Brine Pipeline be realigned at the flood detention basin to avoid any potential impact on flooding, water quality, erosion, and sedimentation etc. during construction activities. Alternatively, works could be proposed to ensure Basin 3B at Cecil Hills can function as required in a modified form.

### **Traffic**

The SIDRA modelling results indicate that the intersection of Elizabeth Drive/Clifton Avenue will be operating at LoS F during construction in 2023 and operation in 2025 peak hours. It is noted that 2023 traffic baseline link flows along Elizabeth Drive will reach its capacity (i.e. >100%).

Furthermore, a Site-Specific Construction Traffic Management Plan (SSCTMP) and associated the traffic control, vehicle movement and parking plans are prepared in accordance with Upper South Creek Advanced Water Recycling Centre Draft Framework Construction Traffic Management Plan.

It is noted that the proposed treated water pipeline (1.2 m in diameter) will be along Elizabeth Drive. The section of the pipeline along the northern section of Elizabeth Drive in front of the Western Sydney International Airport will interact with the proposed metro alignment and the M12 Motorway access road to the airport.

### **Traffic Recommendations**

It is recommended that:

16. Consultation is undertaken with TfNSW for the:
  - a. Provision of interim treatment at the Elizabeth Drive/Clifton Avenue intersection to facilitate turning movements, of heavy vehicles in particular, prior to the upgrade of Elizabeth Drive.
  - b. Determination of an appropriate intersection treatments, such as right turn movement restrictions or an interim roundabout
  - c. Ensuring that all works within the road reserve are to be at the applicant's cost and all signage is to be in accordance with the TfNSW Traffic Control at Worksites Manual and the RMS Delineation Guideline.
  - d. Required approval for any traffic signal adjustments
17. Construction traffic from the subject project minimises traffic movements during AM and PM peak hours.
18. A cycle lane or shared path is provided along Clifton Avenue to connect to the planned future network along the M12 Motorway and Elizabeth Drive.
19. Prepare a SSCTMP that:
  - a. Details site specified construction vehicle routes, number of trucks, hours of operation, access arrangements and traffic control for future developments.
  - b. Outlines the need for a Road Occupancy Permit issued by Council or Road Occupancy Permit issued by the Transport Management Centre.
  - c. Is submitted to Liverpool City Council's Traffic and Transport Section for approval at least 10 days prior to commence of work.
20. The following additional applications be made to Council's Traffic and Transport Section if applicable:
  - a. If a works zone is required, an application that to indicate the exact location required and the applicable fee is to be included.
  - b. If parking restrictions are in place, an application to have the restrictions moved, will need to be made.



21. Council's on-street assets such as footpath be protected at all times.
  - a. Any damages should be rectified to Council satisfaction.
  - b. A road opening application is required for any intrusive digging in the public road or footpath: <https://www.liverpool.nsw.gov.au/council/Fees-Forms-Policies-and-Enforcement/forms>
22. Consultation is undertaken with Transport for NSW (TfNSW) for the:
  - a. Incorporation of water pipeline into the Elizabeth Drive upgrade design.
  - b. Accommodation of the at-grade metro line and M12 Motorway access Road through the construction and elevation of pipeline section along northern section of Elizabeth Drive in front of Western Sydney International Airport.
23. Underbore is preferred for the proposed pipeline crossings under existing public roads.

### **Heritage**

Council staff have reviewed the Aboriginal Cultural Heritage Assessment and Statement of Heritage Impact. As National and World Heritage are managed external to Council by respective State and Federal Agencies, no comment will be given regarding these matters.

Whilst several of the items proposed are impacted by the upcoming M9 Outer Sydney Orbital (which will run parallel with Elizabeth Drive), the majority of these will fall within Penrith City Council. Liverpool is not within position to advise on heritage items outside its boundaries.

The proposal does not impact on any local items under Liverpool's heritage register but does impact upon Aboriginal Cultural Heritage.

### **Heritage Recommendations**

It is recommended that:

24. Objects are managed in accordance with the wishes of relevant Aboriginal stakeholders
25. Slightly amend the positioning of plant and pipe work to minimise impacts on Aboriginal Cultural Heritage

26. Where necessary, recovery works are undertaken to ensure all objects are secure:

- a. Objects are recorded and photographed
- b. A report is prepared to be provided to the Aboriginal Land Councils and Liverpool City Council Library

**Open Space**

Council staff support improvement and enhancement (visual, functional and environmental) of the ENZ land developed as a green space. Connectivity is key to the functionality and utility of green corridors planned for passive recreation i.e., walking and cycling trails.

The proposal should not limit active transport and pedestrian pathway connections along the creek corridors, noting the considerations and mitigation of flooding impacts.

**Economy**

Whilst timing has been indicated in the document, there remains a risk that servicing commitments may not be made within the Liverpool LGA (namely Austral). It is also noted that a substantial area of the development is to be used as a solar farm prior the completion of Stage 2.

Council suggests that the AWRC should ideally be bought forward to deliver the required infrastructure to support the development of the Aerotropolis and surrounding growth areas including Austral and Leppington North. There is significant demand for development to occur in accordance with established planning policies and plans, with the current limitation of servicing causing delays for developers and businesses.