Department of Planning and Environment

Our ref: OUT22/4315

Nathan Heath
Planning and Assessment Group
NSW Department of Planning and Environment

Email: nathan.heath@planning.nsw.gov.au

18 May 2022

Subject: **Upper South Creek Advanced Water Recycling Centre (SSI-8609189) – Response to Submissions (RTS)**

Dear Mr Heath

I refer to your request for advice sent on 8 April 2022 to the Department of Planning and Environment (DPE) Water about the above matter.

This proposed project is the concept and Stage 1 development application for an Advanced Water Recycling Centre to provide wastewater services and recycled water for the Aerotropolis and South West Growth Areas and associated pipelines.

DPE Water have reviewed the RTS and have various post approval recommendations to ensure the appropriate management of water impacts and take. The ability to obtain sufficient water entitlement is a particular risk to the project, which the proponent should consider carefully.

Please see **Attachment A** for more information.

Please note that the water licensing and approval function for SSI projects and government applicants has now moved from NRAR to DPE Water. Should you have any further queries in relation to this submission please do not hesitate to contact DPE Water Assessments water.assessments@dpie.nsw.gov.au. or to the following coordinating officer within DPE Water:

Alistair Drew – Project Officer
E: Alistair.drew@dpie.nsw.gov.au

Yours sincerely

Mitchell Isaacs
Chief Knowledge Officer
Department of Planning and Environment: Water

Attachment A

Detailed advice to DPE Planning & Assessment regarding the Upper South Creek Advanced Water Recycling Centre (SSI-8609189) – Response to Submissions (RTS)

1.0 Water Take

1.1 Recommendation – Post Approval

- The proponent must ensure sufficient water entitlement is held in a water access licence/s (WAL) to account for the maximum predicted take for each water source prior to the take occurring.
- Ensure that relevant nomination of work dealing applications for WALs proposed to account for water take by the project have been completed prior to the water take occurring, under s71W of the *Water Management Act 2000* (WMA).
- Water supply works that are part of an SSI project (and assessed accordingly) are exempt from requiring a water supply work and/or use approval. Should works be required and not assessed as part of the SSI process, a water supply work and/or use approval under the WMA will be required unless another exemption applies.
  The proponent should note that even if it is exempt from holding a water supply work and/or use approval there will still be further impact assessment required for the dealing application process to nominate the work on the WAL(s) under s71W of the WMA. Approval of the dealing is not guaranteed by the SSI assessment process, however early assessment of potential impacts through or parallel to the SSI assessment may reduce the uncertainty.

1.2 Explanation

The proponent has not confirmed access to appropriately licenced water for the project for some water supply options considered, which presents a risk to the project.

There is predicted to be 64ML required in the Sydney Basin Central Groundwater Source for pipeline construction. The proposed methods of obtaining the required entitlements include Controlled Allocations and trades. The most recent controlled allocation released only 1ML in the Sydney Basin Central Groundwater Source which is significantly less than required. The proponent has indicated a trade in the current water year for 24ML has been obtained in the Sydney Basin Central Groundwater Source.

Further controlled allocations aren't guaranteed, and may not provide sufficient entitlement if they do proceed. Further information for controlled allocations can be found at: https://www.industry.nsw.gov.au/water/allocations-availability/controlled

Potential Water take of 14ML from the Nepean River is mentioned but there is no indication of entitlements held for this take. Entitlements should be held to account for this take unless an exemption applies.

If new pumps are proposed it is recommended their installation and operation be assessed as part of the SSI assessment process to avoid the need to obtain approvals separately under the WMA. 14ML is listed as potential take but no information on how this will be taken has been provided.

2.0 Surface Water Management

2.1 Recommendation – Post Approval

- The geomorphic monitoring should not be only to detect impacts at overbank flow stage, but extend to bench inundation (usually at 1:3 or 1:4 month Average Recurrence Interval)
- A flow gauge adjacent to the wastewater treatment facility is highly recommended to provide data needed for analysing hydraulic factors and any necessary armouring or other reinforcement/protection needed to protect banks and benches for impacted reaches of South Creek.

2.2 Explanation

Sydney Water has modified its original statement of commitments to incorporate recommendations made DPE Water's review of the Environmental Impact Statement. These include armouring discharge outlet points, enhanced riparian revegetation, and formation of a monitoring plan to address potential erosion of sensitised river reaches downstream of discharge points into the Nepean River and South Creek.

DPE Water recommends flow event monitoring is conducted for South Creek during operation of the treated wastewater discharge plant. The recommended actions of WW25-29 of Table 15.4 of the Environmental Impact Statement should be adopted as standard monitoring requirements for the proposal. The monitoring parameters should focus on alteration of channel form and renewal of geomorphic features that would otherwise be present in a watercourse of similar River Style to South Creek at the proposed site. Sydney Water proposes to monitor channel state only following overbank flow events. The flow heights at which monitoring should occur when incipient benches are inundated and sediment drapes add to bench shape and level. The heights of benches along South Creek should be reviewed and channel monitoring designed to determine whether benches are renewing and in-channel and riparian vegetation is establishing.

The lack of flow gauges in South Creek hinders better understanding of the relationship between flow and hydraulic factors affecting the form of South Creek. DPE Water

recommends an additional flow gauge should be installed in South Creek adjacent to the enhanced wastewater treatment facility. This gauge may then provide data to be incorporated into the monitoring plan and its implementation. It can also be used to gather data to analyse the relationship between urban development and altered hydraulic stress on channels.

Reporting channel state conditions should follow the proposed frequency in recommendation WW25 of Table 15.4 of the Environmental Impact Statement.

End Attachment A