Councillor Noon - QoN - Water Quality Management and Algal Bloom Mitigation in the River Torrens Lake and City Water Bodies

Tuesday, 28 October 2025 Council

Council Member
Councillor Carmel Noon

Public

Contact Officer: Tom McCready, Director City Infrastructure

QUESTION ON NOTICE

Councillor Carmel Noon will ask the following Question on Notice:

In the context of ongoing algal blooms, faecal and other contamination, and repeated lake closures over the years-I seek answers to the following questions.

- How much is the Adelaide City Council expending on water quality per annum?
- What technology/technologies are currently being deployed?
- Given recurrent blooms and ongoing lake closures, what criteria are used to evaluate the efficacy of these technologies?
- Other than the one/s already being deployed, what technologies has the ACC been made aware of with regard to improving water quality?
- What, if any, other technologies have actually been trialled?
- If other technologies have not been trialled, on what basis have these trials been rejected?
- What plans does Council have to improve the water quality in the Torrens Lake and other water bodies, especially given the possibility of Adelaide hosting COP31?

REPLY

- 1. The City of Adelaide (CoA) allocates an annual budget of \$200,000 for water quality monitoring across the River Torrens and other Council maintained water bodies.
- 2. While CoA does not currently employ active water treatment technologies, aerators have previously been used in an attempt to improve dissolved oxygen levels and prevent thermal stratification. In place of aerators, CoA now collaborates with SA Water to undertake controlled release of flows from Kangaroo Creek Reservoir in coordination with operations at the Adelaide Weir. Releasing cooler water from the bottom of the reservoir helps disrupt the condition that promotes the blue green algae growth.
- 3. In addition to controlled releases, the fountain off the Riverbank Precinct Pedestrian Bridge further acts to move and aerate water adding oxygen which makes the environment less likely for the growth of blue green algae.
- 4. Noting that the last Torrens Lake closure for an algal bloom occurred in 2013, both of these actions are examples of how the movement of water has helped prevent the stagnant condition that can contribute to algal blooms. It is important to further note that the last closure of Torrens Lake was in March 2025 due to

Council - Agenda - Tuesday, 28 October 2025

- the high level presence of E. coli and Enterococci, and not caused by an algal bloom.
- 5. Having no algal bloom-related closures of the Torrens Lake since 2013 suggests that the current practice of controlled releases from the Kangaroo Creek Reservoir have been an effective management strategy. The more recent closure of the Torrens Lake was due to the presence of E. coli and Enterococci and not caused by algal bloom.
- 6. A further initiative is the Rymill Lake Renewal Project, which has been designed with functionality upgrades to harvest stormwater from the Victoria Park wetland. The system includes a biofiltration component that cleans water through a circulation system integrated into the garden beds. This biofiltration system is continually monitored to ensure its long-term effectiveness.
- 7. To manage water quality in all our water bodies (which includes the River Torrens), CoA, in collaboration with the Torrens Lake Cyanobacteria Advisory Committee (TLCAC), has established a comprehensive water quality monitoring program that includes
 - 7.1. Weekly monitoring from December to the end of March
 - 7.2. Monthly monitoring is undertaken for the remainder of the year.
- 8. CoA was recently approached by a technology provider proposing a trial at the River Torrens and Rymill Park Lake. The proposal was assessed and declined due to:
 - 8.1. A lack of scientific evidence to support the proposal
 - 8.2. Insufficient peer reviewed research supporting the effectiveness of the technology
 - 8.3. High establishment costs
 - 8.4. Lack of alignment with CoA Unsolicited Proposals guidelines.
- 9. Consultations with agencies also highlighted concerns raised by peak water and environmental scientists regarding potential adverse impacts on aquatic organisms.
- 10. Any new innovative approaches and/or technologies are always assessed based on their sustainability and effectiveness with regard to maintaining the health of our water bodies.
- 11. CoA is open to trialling innovative technologies that are scientifically validated and do not have any adverse impact on aquatic organisms within our water bodies. We also consider the sustainability and overall merit of such technologies as long-term solutions for improving and maintaining water quality.
- 12. Currently, the most effective strategy for controlling cyanobacterial blooms in Torrens Lake and other water bodies during summer involves releasing water from Kangaroo Creek Reservoir into the River Torrens. The released water travels downstream, helping to disperse and dilute cyanobacteria in the Lake and prevent bloom formation.
- 13. The timing of these releases, known as managed flow events, is informed by regular monitoring of cyanobacteria concentrations in Torrens Lake, weather forecasts, tidal conditions, and planned activities around Torrens Lake, River Torrens and coastal areas near the River Torrens estuary.
- 14. This approach has successfully controlled cyanobacterial growth and kept Torrens Lake open for recreational use over the past eight years, since the program was formalised in 2015–16 following four years of trials. While the managed flow events are effective in preventing Torrens Lake closures and provide environmental benefits along the river, they can have some impacts on beach users near the River Torrens outlet.
- 15. The Torrens Lake Cyanobacteria Advisory Committee (TLCAC) and CoA are always open to any potential technology and sustainable option to help prevent algal bloom in River Torrens or other water bodies.

Staff time in receiving	To prepare this reply in response to the question on notice took approximately
and preparing this reply	5.5 hours.