

Resolution of Council

3 April 2023

Item 10.11

Victoria Park Wetlands Remediation

Moved by Councillor Weldon, seconded by Councillor Jarrett –

It is resolved that:

- (A) Council note that all Councillors were provided the following information about wildlife fatalities at Victoria Park's Lake Northam, a constructed wetland which functions as a filtration system for stormwater runoff from King Street and the surrounding area:
 - (i) City staff were first made aware of duck fatalities at or near Lake Northam on 9 March 2023, with the City receiving additional notification from Sydney Wildlife Rescue on 10 March 2023;
 - (ii) Sydney Wildlife Rescue advised dead ducks had been sent to Taronga Zoo for autopsies;
 - (iii) the City has since been working with the Australian Registry of Wildlife Health, Taronga Zoo, the NSW Environment Protection Authority (EPA) and the Department of Primary Industries to determine the cause;
 - (iv) working with Taronga Zoo, the City has provided background on the wetland system, the current ecological condition of the lake and details of the City's quarterly water monitoring program;
 - (v) through discussions with Taronga Zoo, City staff and volunteers, the City understands that the carcasses of 26 Pacific Black Ducks, one Corella, one Rainbow Lorikeet, one Flying Fox and two Ibises have since been found in or near the lake;
 - (vi) the City has been unable to confirm if there are additional carcasses collected/disposed of by other agencies or volunteer groups;

- (vii) it is unlikely that the Corella, Lorikeet and Flying Fox deaths are related to that of the duck deaths, as these species tend to have limited interactions with standing water;
 - (viii) early correspondence between the City and the zoo indicated avian botulism as the potential cause since a range of environmental conditions had been experienced that can promote the bacterial outbreak. Conditions include:
 - (a) shallow water depths from low levels of stormwater inflows and surface evaporation;
 - (b) high water temperature from recent heatwaves; and
 - (c) high nutrient load, organic levels and low dissolved oxygen in the water;
 - (ix) unfortunately, duck fatalities within the Local Government Area and surrounding councils during summer are not uncommon when environmental conditions combine to contribute to an outbreak;
 - (x) there have been previous outbreaks of avian botulism in Lake Northam in the summers of 2010 and 2012; and
 - (xi) botulism is caused by the release of toxins from the Clostridium bacteria, under optimal conditions, where concentrations in standing water can increase to a level which is harmful to wildlife, particularly birds. It poses a low risk to humans and dogs;
- (B) Councillors note that they were also informed about the following investigations being undertaken and the outcomes of these investigations:
- (i) quarterly testing of water quality at Lake Northam is undertaken by an independent environmental consultant with samples taken to an accredited laboratory and assessed against state and national guidelines. Following initial communications with Taronga Zoo, the City arranged for monitoring at Lake Northam to be expedited to 16 March 2023;
 - (ii) based on the initial field inspection and measurements:
 - (a) no immediate environmental risks were identified;
 - (b) field measurements together with laboratory results indicate an elevated nutrient and organic content combined with low dissolved oxygen;
 - (c) these conditions could encourage the production of botulinum;
 - (d) to further verify avian botulism, the City requested additional sedimentary sampling and targeted laboratory analyses for suspect bacterium;
 - (e) partial water quality testing results have been received with the remainder due by 31 March 2023; and
 - (f) all water quality results from this round of monitoring have been provided to the NSW EPA;
 - (iii) on 24 March 2023, Taronga Zoo distributed preliminary pathology reports for 10 birds submitted by Sydney Wildlife Rescue;

- (iv) preliminary results indicate avian botulism remains the likely diagnosis, however other intoxication is a possibility; and
 - (v) to confirm the findings animal tissue samples have been sent to a specialised laboratory in Western Australia for toxicology testing. Results were due on 31 March 2023;
- (C) Councillors further note the following Management Control Measures proposed by the City:
- (i) as multiple lines of supporting evidence from both water quality and autopsy results indicate avian botulism is the likely cause, the City is preparing to implement controls in relation to avian botulism if it is confirmed as the cause of the deaths; and
 - (ii) the following management strategy has been planned to mitigate the outbreak with works to commence 3 April 2023:
 - (a) remove sediment and reduce vegetation guided by an ecologist/wetland specialist;
 - (b) increased reticulation of water in the wetland; and
 - (c) additional one-off sampling event of the water body to determine if conditions have improved to suppress the outbreak (i.e. lower nutrient concentrations, lower organics, higher oxygenation, etc);
- (D) Councillors additionally note:
- (i) the system often experiences high nutrient levels due to stormwater flows entering the system and the water is not considered suitable for primary recreational contact (for example, swimming). As a result, permanent signage exists, advising park users to:
 - (a) refrain from entering the lake and to be careful near the lake edge;
 - (b) avoid drinking the water;
 - (c) avoid fishing or using model boats on the lake; and
 - (d) prevent dogs entering the lake and keep them away from wildlife; and
 - (ii) the City works with a range of internal and external specialists to undertake proactive management measures to ensure the wetlands are maintained in a good condition. These include:
 - (a) quarterly testing of water quality by an independent environmental consultant;
 - (b) daily rubbish removal and litter inspections;
 - (c) monthly weed management of wetland reed beds and lake islands;
 - (d) periodic removal of silt build-up, excess vegetation and weeds (most recently undertaken in February 2023);

(e) inspections to ensure wetland is clean and in good ecological condition;
and

(f) monthly check of water reticulation systems and pumps; and

(E) the Chief Executive Officer be requested to:

(i) keep Councillors informed about actions being taken to address duck and other wildlife fatalities at Lake Northam;

(ii) implement measures to mitigate the risk of a similar mass fatality event from reoccurring; and

(iii) continue to review other constructed wetlands, lakes and ponds under City management to assess mitigation and ongoing management strategies at these locations.

Carried unanimously.

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