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Legislative Assembly Standing Committee on Planning and Environment,
GPO Box 1020
Canberra, ACT 2601

November 15th 2007

Molonglo Lake proposal

Dear Committee,

I wish to comment on the proposal for a lake running along the Molonglo valley, formed by a 25m high dam, built below the present Coppins Crossing.

This will be a deep lake, with limited shallow areas where macrophytes can establish. The water quality is likely to be poor, with two major urban creeks running into it, and intermittent discharges of cold, high nutrient water from the bottom of Scrivener dam. During summer the river stops flowing, at other times after high rainfall in the upper Molonglo catchment a torrent of water comes down the river.

There is every prospect that extensive cyanobacterial blooms in the proposed lake will result from these circumstances, causing offensive smell, unsightly appearance and a cancellation of aquatic activities. There may also be deaths of fish and waterfowl.

You will be aware of the closure of aquatic activities on the Molonglo water ski reach, and in Tuggeranong lake, due to cyanobacteria. These organisms are throughout ACT waterbodies and proliferate due to nutrients and warm water in summer.

To reduce nutrient concentrations in waterways, construction of artificial wetlands, shallow ponds, and natural reedbeds are helpful. A chain-of-ponds in the incoming creeks, and a sequence of small waterbodies in the river, is a better prospect than one deep lake. A chain-of-ponds will provide fire protection and act as a water source for limited irrigation of recreational areas. It also provides a better habitat for birds and plant growth than a steep lake shore.

An effective urban waterway with some similarity to the Molonglo is the Torrens River Park in Adelaide, where a combination of stream flow, shallow ponds and small dams has created a pleasant park environment. The only component causing problems is the lake in the city, which has similar issues to those likely with the Molonglo- cyanobacterial toxic blooms, killing waterfowl and fish and generating a bad smell.

Extensive evaluation of the nutrient loads in the Molonglo water and incoming creeks is needed, together with an assessment of the probability of cyanobacterial blooms in the foreshadowed lake, prior to any decision on construction.

Yours faithfully,

A handwritten signature in black ink, appearing to read 'Ian Falconer', with a stylized flourish at the end.

Ian Falconer

Em. Professor Ian R. Falconer, AO, PhD, DSc, FRSC, FAIBiol.
Water Quality Consultant

References

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Cyanobacterial Toxins in Drinking Water Supplies, Falconer I.R., CRC Press, 2005