



LEGISLATIVE ASSEMBLY
FOR THE AUSTRALIAN CAPITAL TERRITORY

STANDING COMMITTEE ON ENVIRONMENT, CLIMATE CHANGE AND BIODIVERSITY
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Submission Cover Sheet

Inquiry into Environmental Volunteerism in the ACT

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The Standing Committee on Environment, Climate Change and Biodiversity:
Inquiry into Environmental Volunteerism

From:

Ross Knee, Independent Water Management Services

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TOR 1.

I have been volunteering for Waterwatch for 18 months and have found it to be an excellent organisation, run by enthusiastic and capable people, who do a terrific job.

In addition, the monthly newsletters and annual CHIP report are excellent.

I would willingly volunteer for other surveys, eg platypus, frogs, etc, but haven't done so due to my time constraints.

I fully support the ongoing funding for this very important activity, which not only raises the awareness of water issues with the volunteers and the people they come across during their sampling, but also provides critical additional information to the water managers responsible for looking after our water courses.

TOR2.

I fully support increased funding to Waterwatch to provide additional resources to visit schools, Aboriginal and Torres Strait Islander communities and other groups, to encourage their involvement in Waterwatch volunteering. Helping communities, especially the young, understand the issues around water quality, is critical in improving the way we manage our catchments and waterways.

TOR5.

Besides supporting Waterwatch, my main reason for writing this submission, is to encourage the Government to better fund professional water quality monitoring.

While Waterwatch is a very good program, it should not be used to replace data collected by an accredited laboratory and sampling group.

Waterwatch data is a great indicator of water quality, but it has many limitations which a professional water quality data collection team do not have.

For example:

- a. storm events are the major transport mechanism for pollutants in our waterways, by around 5 times (University of Canberra, 2020, Lake Tuggeranong research project report).
Waterwatchers due to HSE considerations, should not sample in flood events, hence their samples are usually taken in dry weather flows when pollutant transport is low. Professional water quality sampling should cover flood ranges, eg at least one sample should be taken in each flow quartile, as well as in base flows.
- b. Waterwatch analysis is necessarily limited to basic physical parameters, such as Temperature,

pH, turbidity, conductivity, Dissolved Oxygen (DO); and chemical parameters Phosphorus and Nitrates. In addition, these test are of limited accuracy, eg Nitrates only measure down to 1mg/L and Phosphorus to 0.05 mg/L when the target is 0.035. Professional testing can measure to much greater accuracies and include a much greater range of parameters, especially critical parameters such as Phosphates, BOD, Ammonia, etc.

Water quality is such a critical issue for the Canberra community, yet the monitoring that is undertaken is insufficient to support a better understanding of the complex processes involved. As evidenced in the University of Canberra 2020 report.

The multi-millions of dollars spent on water quality treatment assets, eg the \$93M spent on the Healthy Waterways (of tax and rate payers money), is way over the top considering the small amount (<\$1M annually) spent on water quality monitoring, when so little is known about the efficacy of those treatment processes and so much better knowledge is needed. Estimates of how much pollutants have actually been removed by the Healthy Waterways is from modelling (refer to Estimates transcripts); and that monitoring is still being implemented, that is monitoring for only 4 of the healthy waterways sites and which under utilises existing monitoring facilities eg TG010 monitoring at Upper Stranger which has not reinstated the monitoring at Upper Stranger to measure everything that comes into the system (trash rack, sediment basin, bioretention and pond) and what goes out into Isabella Pond. Presumably due to funding shortfalls.

In addition, one person should have the authority and be responsible for all the monitoring programming and outcomes in the ACT, utilising qualified and experienced water monitoring and analysis people. Eg people who understand the critical importance of accurate continuous flow measurement to provide realistic pollutant loads.

The samplers and laboratory should also have appropriate accreditation from a recognised organisation, such as NATA.

I am happy to provide any additional information and to discuss these issues, if required.