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Submission to NSW Department of Planning: Part 3A Statement for Googong Sewerage System

Background

This is submitted by Roger and Elizabeth Clement who have lived at 155 Wickerslack Lane since 1973 and continue to exercise their riparian right to water from the Queanbeyan River for all household and garden needs except for water for drinking, cooking and teeth cleaning for which rainwater is used. We are one of around thirteen families along the eastern side of Wickerslack Lane whose lands front onto the river which is used to meet their everyday water needs. All fifteen families are located about 1 km downstream from the junction of Googong Creek and the Queanbeyan River.

The developer informed residents at a meeting on Monday 13 December in Queanbeyan that their preferred option would have been to return excess recycled water (i.e. the output from sewerage treatment) to Googong Dam from whence it came because the water qualities were similar. However this had been rejected by the NSW and ACT authorities. Thus the excess recycled water and any sewerage spillage from the sewerage works would now flow down Googong Creek and into the Queanbeyan River.

They also admitted that additional storm water (compared with the speed and volume of flows from the same land when used for agriculture) would also be flowing down Googong Creek because of the hard surfaces in the Googong Town. They agreed that in total this additional recycled water and storm water flows down Googong Creek would prove to be a significant increase but could offer no modelling or analysis to identify the likely impact.

Principle Objections and Recommendations

It is our firm view that the analysis provided in the present part 3A documentation is so deficient that it should be withdrawn, the papers rewritten to take account of the further analysis of all the major risks involved, and resubmitted for further public comment.

The risks not properly taken into account are firstly the risk of a major sewerage spillage from Googong treatment plant, the consequent damage this would do to the ecology and landforms in Googong Creek, the ecology of Queanbeyan River downstream from its junction with Googong Creek all the way to Lake Burly Griffin and the economy and amenity for the people of Queanbeyan and Canberra.

The second major risk is due to the insidious effects of the additional flows of recycled water and storm water arising from Googong Township down Googong Creek. The developer acknowledges that these additional will be significant and makes a lame offer of remediation if required without undertaking any analysis of the size frequency and distribution of such flows. Local storm patterns and maximum precipitation events are likely to make this situation even more fraught. The very steep and narrow nature of Googong Creek and the poor construction standard of the existing dams, make it very difficult if not impossible to

undertake remediation after the event. Just getting machinery into and out of the creek may well do even more damage than has already occurred.

These two risks are elaborated on below together with further recommendations in the event of the proposed sewerage treatment plant proceeding.

The High Risk of a Serious Sewerage Spill

In support of this conclusion we offer the following observations on the likelihood of such a spill occurring risks:

- The sewerage treatment plant and the sewerage pumping points need substantial amounts of electric power to operate which power is subject to major interruptions lasting substantially longer than the four hours bypass storage of the sewerage plant. The causes of this power outage could include either a major bushfire destroying the several poles of the major supply to Googong township or major lightning strike doing major damage to the substation or switching yards supplying Googong township. Power cuts in such circumstances are often for 24 hours or more.

- In the event of a major rain event such as a one in 20 year flood or a shorter maximum precipitation event the storm water systems of Googong township and their back- up over ground flows along streets will be overwhelmed, allowing major ingress of storm water into the sewerage system with resulting major overflows beyond the four hour bi-pass capacity of the sewerage plant.

  - Such rain events will occur and their risk is increased by an identified local storm condition which applies to storm cells in Queanbeyan and Canberra region, and their storm paths bringing them into contact with uplifting terrain adjacent to hills and ridges. Such a storm drowned 7 people in Canberra in the Woden Valley in the 1970s when it dropped very heavy rain on Mt Taylor. More recently in the 1980s a storm which came down the Queanbeyan River Valley and over the slopes of Mt Jerrabomberra dumped 68mm of rain in less than 40 minutes causing major flooding of houses in southern Queanbeyan and overwhelming both the storm water system and its over ground backup. It quickly filled and overflowed a detention basin at South Queanbeyan Primary School which Queanbeyan Council claimed at the time had been built to contain a one in one hundred year rainfall event.
  - The Googong township will sit on top of a ridge well elevated above the Queanbeyan River and is therefore subject to major uplift of storms passing down the Queanbeyan River storm path (typically south to north).

- To the above scenarios must be added major human error causing the plant to overflow significantly. Queanbeyan Council has poor record in this regard with three major sewerage spills in the past ten years with two related to human error.

- Also of major concern over time is the ability of any local government authority in Australia to control the turning of storm water into sewerage system. Every sewerage

plant in Canberra and Queanbeyan overflowed in the flood events of the past three weeks in the region. All of these flood events were between one in five and one in ten year events and the sewerage overflows were in part at least due to substantial; infiltration of the sewerage system by storm water. The record of Councils elsewhere in Sydney and right across the eastern states is universally poor in this regard.

Finally on this we can say with certainty that over the life of the proposed sewerage system, the likelihood of occurrence of major flood and fire events and their intensity will increase substantially due to climate change.

Conclusion about likelihood of a major sewerage spillage

The above evidence naturally leads to the conservative conclusion that over the first ten years from commissioning, the likelihood is close to one of a major sewerage spill from this sewerage works with major impacts on the ecology, economy and amenity of Queanbeyan River and its users. Further we can say with certainty that this likelihood will increase further over the life of the plant due to increasing levels of storm water inflow to the system and because climate change will make extreme fire and rain events more likely.

The Impact On the Ecology and Sediments in Googong Creek

The papers basically dismiss the risk of serious damage to Googong Creek and the Queanbeyan River form consequential sedimentation due to increased run-off from the hard surfaces of Googong township and the need to dispose of surplus recycled water. It almost certainly underestimates the impact of major rain events and maximum precipitation events both now and into the future. The evidence of storm paths down the Queanbeyan River valley and unusually heavy rainfalls over a short period are substantial. For example the major rainfall events recorded on the lower slopes of Mt Jerrabomberra which is less than 4 kms from the Googong site. In fact Mt Jerrabomberra forms the northern end of the ridge on which Googong township will sit. The tragic loss of seven lives in the Woden incident in the 1970s was avoidable because the local farmer warned ACT authorities he had seen such floods twice in the previous fifty years but they took no action to address these maximum flows off Mt Taylor which were exacerbated by the hard surfaces of the new suburbs in the Woden area.

There needs to be careful estimates made of the increase in volumes due to runoff from hard surfaces and the additional recycled water. This then needs to be carefully modelled for a range of scenarios to identify the impact on Googong Creek and the likely movement of sediments and the flow on effects for the Queanbeyan River. If, as seems likely, there are major sediments movements projected then serious amelioration proposals need to be identified and implemented before the township is built because as already explained the chances of being able to do anything about the problems once they have happened will be

likely to be highly constrained due to the terrain of Googong Creek and its narrow steep gorge structure.

Additional Recommendations If the Decision is taken to Proceed Immediately

1 **There needs to be an immediate effort made to reach agreement with the ACT Government to allow the operators at Googong Dam to immediately release additional water into the Queanbeyan River from the dam to substantially dilute the impact of any sewerage or chemical spill into the River from Googong township. The agreement must be in place before the sewerage system at Googong is commissioned.**

2 **There should be weekly full monitoring in both the exit of Googong Creek into the Queanbeyan River and in the river itself just below the junction of Googong Creek and the River with the results published on line within hours of them being completed. This full testing regime should extend to the Wickerslack sampling site and also to the sites in Queanbeyan.**

3 **Queanbeyan Council should be responsible for immediately notifying the Wickerslack residents relying on this water and Queanbeyan and Canberra residents if there any elevated levels of readings from the river above prescribed human health guidelines.**

4 **The QCC should move immediately to make the developer contribute to a scheme for the reticulation of potable water or 20,000 gallon rainwater tanks pumps and roof guttering in Wickerslack Lane at no additional capital cost to these residents.**