

Quiet Lakes Water Quality Tariff

1 June 2016: Melbourne Water's response to ESC resident submissions

Melbourne Water thanks the Essential Services Commission (ESC) for the opportunity to respond to submissions made by residents to the ESC regarding the Quiet Lakes special tariff.

Melbourne Water has reviewed the three submissions and noted consistent themes which are outlined as follows:

1. Whether Melbourne Water is acting consistently with the recommendations of the independent review;
2. The assertion of existing guideline levels for managing levels of Blue Green Algae (BGA) for secondary contact recreational activities;
3. A proposal that Melbourne Water's level of service provided through the waterways and drainage charge (WWDC) should include bore flushing of the Quiet Lakes; and
4. The position that bore water flushing into the Quiet Lakes has a broader public benefit.

Melbourne Water's response to the above submissions are outlined below.

Whether Melbourne Water is acting consistently with the recommendations of the independent review:

The Patterson Lakes independent review was established in 2012 (findings released March 2013) to review the management of Patterson Lakes. Key aims of the independent review were to assess current management arrangements and provide recommendations on future actions to create a sustainable management framework based on a fair and equitable funding model that includes beneficiaries of both the Quiet Lakes and Tidal Waterways. This included, but was not limited to, assets such as beaches, retaining walls, jetties and waterways.

The independent review found that Melbourne Water is responsible for maintaining water quality in the Quiet Lakes to support secondary contact recreational activities such as boating.

Based on over six years of monitoring data, Melbourne Water has acted in line with the recommendations of the independent review for the Quiet Lakes regarding secondary contact criteria for *E. coli* based on Victorian State guidelines (SEPP Waters of Victoria, 2003¹).

No guidelines exist for managing Blue Green Algae (BGA) for secondary contact recreational activities. Melbourne Water follows federal guidelines for managing BGA in recreational waters (NHMRC, 2008²), which were developed based on primary contact recreation studies. These guidelines outline responsibilities for waterways managers to manage risks to public health by monitoring BGA blooms and ensuring people are well informed when an outbreak occurs. Melbourne Water has also sought (and received confirmation of) advice from the Department of Health and Human Services (DHHS) to ensure it is correctly interpreting guidelines.

As outlined above, the independent review found that Melbourne Water is responsible for maintaining water quality to support secondary contact recreational activities such as boating. Melbourne Water meets obligations, relevant guidelines and is operating consistently with the recommendations of the independent review in this matter.

That there are existing guideline levels for managing Blue Green Algae for secondary contact recreational activities:

According to the NHMRC guidelines, secondary contact recreation refers to activities that have some direct contact with the water, but where the chance of swallowing water is very low to unlikely, such as boating and fishing.

The guideline value outlined in SEPP (WoV) for secondary contact recreation is the median of five *E. coli* tests taken over 30 days should be equal to or less than 1000 organisms/100ml. Based on historical *E. coli* data collected over the past six summers in the Quiet Lakes, the median has not exceeded this level. As such Melbourne Water's position is that the Quiet Lakes are compliant with secondary contact criteria and no further publically funded water quality improvement services are required. Melbourne Water proposes to continue monitoring throughout the high-recreation summer period in order to continue to track compliance against this criteria.

In relation to BGA, SEPP (WoV) does not establish a secondary contact guideline value. Melbourne Water and other waterway managers around Australia adhere to the NHMRC guidelines for BGA management and do so by monitoring and notifying stakeholders when a bloom is detected. The NHMRC guidelines consider that the risks posed by secondary contact recreation are so low as to not warrant the development of a specific guideline value. This has been confirmed by the Department of Environment, Land, Water and Planning (DELWP) and DHHS.

In the context of the Independent review recommendation "*That minimum water quality standard in the Quiet Lakes and Tidal Waterways are maintained to comply with secondary contact criteria*", this is an important clarification that significantly influences the services Melbourne Water is obliged to provide. The Quiet Lakes, based on over 10 years of monitoring data, meet secondary contact criteria for *E. coli* based on Victorian State guidelines (SEPP WoV, 2003).

Melbourne Water's level of service provided through the waterways and drainage charge (WWDC) should include bore flushing of the Quiet Lakes:

In the context of the Independent review recommendation "*That minimum water quality standard in the Quiet Lakes and Tidal Waterways are maintained to comply with secondary contact criteria*", it is important to note that Melbourne Water meets secondary contact criteria based on over 10 years of monitoring data, without the need for bore flushing.

The service offering Melbourne Water provides to the Quiet Lakes which is funded by the Waterways and Drainage Charge already exceeds the level of service that is provided to Melbourne Water's broader operating area in recognition of the unique circumstances of the Quiet Lakes.

Melbourne Water has agreed to fund additional services that exceed the outcomes anticipated in the independent review and levels of service provided across other Melbourne Water managed water-bodies.

These services include:

- A three year bore flushing trial (concluded 31 March, 2015);
- funding 20ML/pa use of the bore water;
- increased maintenance of the interconnecting pipe system; and
- increased water quality monitoring frequency from fortnightly over summer to weekly.

A number of water quality management plans and initiatives have been developed over the years to improve water quality in the Quiet Lakes along with extensive water quality monitoring. This information has enabled Melbourne Water to arrive at an informed position as to what water quality and other services it can deliver and to what level of service.

Additional to the above mentioned water quality management plans and initiatives Melbourne Water developed a Quiet Lakes Water Quality Management Plan and completed actions to further reduce the risk of blue green algae blooms.

Melbourne Water funded a three year bore flushing trial in the Quiet Lakes (concluded 31 March, 2015) for residents of Quiet Lakes on the understanding this would provide information so residents could make an informed decision about funding the bore flushing

At the completion of the flushing trial, an independent ballot was conducted (December 2015) of all Quiet Lakes residents who received benefit from the bore, asking if they would be willing to pay for the ongoing flushing use of the bore. 75% of residents voted in favour of commencing bore flushing and agreed to pay the charge

Bore water flushing into the Quiet Lakes has a broader public benefit:

Quiet Lakes bore water flushing does not provide a benefit to the broader public outside the Quiet Lakes. The current service provided to the Quiet Lakes by Melbourne Water already meets (and exceeds) the required level of service provided to broader operating areas.

Water from the Quiet Lakes flows to Kananook Creek. The flushing flow proposed by the Quiet Lakes residents (1.5ML per day) would make up less than 1% of the flow of this waterway when the bore is flushing, and as such would have no measurable beneficial impact on the waterway.

Access to the Quiet Lakes is private. This is made clear by the Patterson Lakes Independent review (see below). The primary beneficiary to the flushing is the Quiet Lakes residents due to the inaccessibility by the public to the lakes.

- *...the Review considers that the recreational and amenity features of the Quiet Lakes are a private benefit that is exclusive to the dwellings that adjoin those lakes. This is largely because of their lack of accessibility – no provision has been made for the general public to enter from surrounding streets. (page 53)*
- *It is however clear to the Review that the residents of the Quiet Lakes enjoy special and private recreational benefits that are not available to the general public. (page 55)*
- *The Quiet Lakes do not provide any recreational benefits to the public because they are not accessible. (page 61)*
- *The recreational benefit provided by the Quiet Lakes remains implicitly private in nature. (page 92)*
- *The Quiet Lakes and all the Tidal Waterways being holistically and equally regarded as “waterways” under the Water Act...The Melbourne Metropolitan Waterways and Drainage Charge funds should then be applied to these assets in the same manner as for Melbourne Water’s entire broader catchment jurisdiction, and be treated as public assets.
Any additional service provision required and agreed to by the stakeholders would be costed, and funded equitably by the respective beneficiaries, on a project basis. (page 93)*

Conclusion:

The Quiet Lakes complies with the secondary contact requirements as outlined in the relevant guidelines. In relation to BGA, Melbourne Water adheres to the responsibilities outlined as local waterway manager by DELWP and aligns with NHMRC guidelines. Melbourne Water has consulted DELWP and DHHS while developing these service offerings. DHHS have reviewed the monitoring and reporting undertaken by Melbourne Water, agreeing that it meets the requirements of the relevant guidelines and comments that the frequency of the

proposed monitoring proposed exceeds the level of service provided by other recreational waterway managers across the State.

It should be noted that Melbourne Water is proposing a higher level of service at the Quiet Lakes for monitoring than equivalent lakes and waterways with weekly BGA surveillance monitoring at the Quiet Lakes over summer (rather than fortnightly) and weekly *E. coli* testing.

Melbourne Water currently successfully meets the responsibilities recommended by the Independent review, ie "*That minimum water quality standards in the Quiet Lakes and Tidal Waterways are maintained to comply with secondary contact criteria as defined under the ANZECC³ Guidelines and SEPP – Waters of Victoria as amended from time to time*".

However, in recognition of the unique circumstances, Melbourne Water has agreed to fund additional services that exceed the outcomes anticipated in the independent review and levels of service provided across other Melbourne Water managed water-bodies.

These services include:

- A three year bore flushing trial (concluded March 31, 2015);
- funding 20ML/pa use of the bore water;
- increased maintenance of the interconnecting pipe system.
- increased water quality monitoring frequency from fortnightly over summer to weekly.

Melbourne Water's position is that the ongoing bore flushing at Quiet Lakes be funded by the beneficiaries, in this case, the residents of the Quiet Lakes. This position was arrived at following the independent consultation process in December 2015 which resulted in majority (75 percent) support by the beneficiaries.

References:

1. Victorian Government. *State Environment Protection Policy, (Waters of Victoria)*. Victorian Government Gazette (2003)
<http://www.gazette.vic.gov.au/gazette/Gazettes2003/GG2003S107.pdf>
2. Australian Government, National Health and Medical Research Council. *Guidelines for Managing Risk in Recreational Waters*. Canberra, Australian Government (2008).
<https://www.nhmrc.gov.au/files/nhmrc/publications/attachments/eh38.pdf>
3. Australian and New Zealand Environment and Conservation Council, Agriculture and Resource Management Council of Australia and New Zealand. *National Water Quality Management Strategy; Australian and New Zealand guidelines for fresh and marine water quality*. Canberra (2008).
<https://www.environment.gov.au/water/quality/publications/australian-and-new-zealand-guidelines-fresh-marine-water-quality-volume-1>