

Response to Address Concerns in the Whitehead Consulting Review - 37 Annie Pyers Drive Gundagai NSW 2722

26/07/2024

In relation to some of the concerns raised in the review conducted by Whitehead Consulting, the following relevant points are presented to reassure that the design is adequate:

Ozzikleen agrees with Whitehead Consulting that grease traps should be installed upstream of the septic tank and SBR if they are not already part of the existing plumbing design. Balance and irrigation holding tanks have been incorporated in the design. These components form part of the 32 kL septic tank and x2 RP100A system proposed and are present to balance potential peak hydraulic loads.

The design of the onsite wastewater treatment system from Ozzikleen has been made in accordance with equivalent persons (EP) in terms of **BOD** and not the hydraulic load EP as **BOD EP is the higher of the two values**.

NSW values for hydraulic loads have been considered and used. However, as BOD loads for NSW's wastewater code to the best of our knowledge are unavailable or limited, values from South Australia's *On-site Wastewater Systems Code, April 2013 (SA Health, 2013)* have been used (Pg. 70 - 78). Furthermore, this code, as well as all codes for all other states around Australia, have been developed with reference to Australian/New Zealand Standards (AS/NZS) which is nationally recognized. In addition, values presented in South Australia's Code are more comprehensive compared to other states that we have found and therefore we have adopted this code as our primary reference when sizing septic systems and when BOD estimates are needed to determine EP. If deemed necessary, we kindly encourage any parties to provide a more suitable reference for NSW when estimating BOD loads for commercial premises.

To reiterate, BOD₅ load is almost 2-3 times larger than the hydraulic load (95 BOD EP compared to 32 Hydr. EP), therefore the system's proposed 22.5 kL balance tank and two 22.5 kL SBRs are more than able to sufficiently accommodate shock load fluctuations.

Based on the information received the system is therefore adequately sized.

Raoul Ozudogru (MEng. Chemical)

Signature: 

