BioSeptic Pty Ltd ABN 95 056 461 226
PO Box 3250 Narellan NSW 2567
67 Smeaton Grange Road, Smeaton Grange, NSW, 2567

1300 658 111
sales@bioseptic.com.au
www.bioseptic.com.au

THIS IS A BRIEF HISTORY OF THE TESTING OF AWTS IN NSW 1992 – 2022.

BioSeptic has undertaken testing of its various Aerated Wastewater Treatment Systems (AWTS) in 1992, 2000, 2018, 2021 and 2022 to three different Standards. The 1992 test was conducted under the direct control of NSW Health. The two tank AWTS treated the influent from two houses on the UWS campus at Campbelltown. It may have been the last STS to be tested by the original NSW Health household testing method. The testing was less extensive than the later tests.

The 2000 test was conducted at the Moss Vale NSW STP and all AWTS were tested to the NSW Health 1998 AWTS Guideline. The last three tests were to AS1546.3:2017. The cost of the last four tests was >$100,000.00 per test.

As the requirements of the Standards became more challenging the BioSeptic AWTSs produced better results. The current 2017 Standard doubled the minimum influent concentration from >150mg/L to 300mg/L.

After reviewing the test data it is considered that increasing the BOD_5 (organic) load on an AWTS increases the bacterial community (MLSS), thus increasing the reduction of organic compounds, i.e., the greater the load the better the treatment. There would be an ultimate overload, but this was not discovered during the testing to AS1546.3:2017 conducted since 2020. The BioSeptic AWTSs all perform to the Australian Standard discharge limits.

To demonstrate that BioSeptic AWTSs have consistently performed within the limits of the various Standards these are the average test results since 1992 of all BioSeptic systems:

Year	Model	Standard	Flow	EP	FAC	BOD5	TSS	TFC
			L/day		mg/L	mg/L	mg/L	cfu/100mL
1992	Two tank.	NSW Health	3188	10	0.78	<8	5.5	0
2000	2 tank Performa	NSWH 1998 Guideline	1520	10	1.24	6.56	6.04	.3
								E. Coli
								cfu/100mL
2020	2 tank Performa	AS1546.3:2017	1500	10	1.27	1.9	5.8	<1
2022	S-TEN 1 tank	AS1546.3:2017	1500	10	1.21	1.78	3.54	1.75
2022	S-5000 2 tank	AS1546.3:2017	5000	33.3	0.89	1.37	3.07	0.37
Note	The last three AWTS all passed at the Advanced Secondary Level, i.e., <10units/L							