

Water quality objectives to protect the aquatic ecosystem environmental values for Earlier Basins Partially Underlying the GAB groundwater aquifer zones in the Queensland Murray-Darling Basin.

Zone	Percentile	Notes: 1. The ANZECC Guidelines (ANZECC/ARMCANZ, 2000) recommend that the highest level of protection should be provided to underground aquatic ecosystems, given their high conservation value. The management intent is to maintain the existing water quality distribution (20th, 50th and 80th percentiles). 2. ID: Insufficient data.																											
		Na		Ca		Mg		HCO ₃		Cl		SO ₄		NO ₃		Electrical Conductivity (µS/cm)	Hardness (mg/L)	pH	Alkalinity (mg/L)	SiO ₂ (mg/L)	F (mg/L)	Fe (mg/L)	Mn (mg/L)	Zn (mg/L)	Cu (mg/L)	SAR (meq/L)	Total Nitrogen mg/L	Total Phosphorous mg/L	
		mg/L	%	mg/L	%	mg/L	%	mg/L	%	mg/L	%	mg/L	%	mg/L	%														
9. Earlier Basins Partially Underlying the GAB																													
1. Bowen Basin	20th	46	95	2	0	0	0	109	64	9	10	0.0	0	0.00	0	190	5	7.4	91.2	13.0	0.20	0.000	0.000	0.005	0.009	8.38	0.000	0.000	
	50th	435	98	2	1	0	0	644	81	98	18	0.0	0	0.00	0	1550	7	8.2	564.0	17.0	1.50	0.020	0.010	0.010	0.015	47.22	0.000	0.000	
	80th	835	99	5	3	1	2	1359	90	225	35	2.6	1	0.50	0	2957	18	8.6	1153.8	22.0	6.73	0.141	0.019	0.031	0.016	109.66	0.109	0.000	
2. Upper Bowen Basin	20th	46	95	2	0	0	0	109	64	9	10	0.0	0	0.00	0	190	5	7.4	91.2	13.0	0.20	0.000	0.000	0.005	0.009	8.38	0.000	0.000	
	50th	435	98	2	1	0	0	644	81	98	18	0.0	0	0.00	0	1550	7	8.2	564.0	17.0	1.50	0.020	0.010	0.010	0.015	47.22	0.000	0.000	
	80th	835	99	5	3	1	2	1359	90	225	35	2.6	1	0.50	0	2957	18	8.6	1153.8	22.0	6.73	0.141	0.019	0.031	0.016	109.66	0.109	0.000	
3. Galilee Basin	20th	104	86	3	3	1	1	16	48	30	15	0.0	0	0.63	0	450	13	7.2	179.3	10.0	0.30	ID	ID	0.000	0.000	8.78	0.137	ID	
	50th	124	94	5	4	2	2	253	72	50	27	0.0	0	1.00	0	571	17	8.0	218.0	13.0	0.60	ID	ID	0.000	0.000	12.99	0.217	ID	
	80th	145	95	10	7	4	6	301	84	92	44	8.9	2	2.00	0	1252	44	8.2	250.5	14.3	0.60	ID	ID	0.000	0.000	15.05	0.435	ID	

References:

McNeil, V.H., Raymond, M.A.A., Bennett, L. & McGregor, G.B. (2018), *Regional groundwater chemistry zones: Queensland Murray-Darling Basin*, Department of Environment and Science, Queensland Government.