

Water supply and security inputs: demographics of Hervey Bay

Parameter	Hervey Bay	Unit	Value year	Sources
Initial population	74,085	no.	2021	Selected SA2s from ABS 2021 Census
Population growth rate 21-26	1.62%	% p.a.	2021-2046	Queensland Government population projections, 2023 edition
Population growth rate 26-31	1.14%	% p.a.	2021-2046	Queensland Government population projections, 2023 edition
Population growth rate 31-36	0.88%	% p.a.	2021-2046	Queensland Government population projections, 2023 edition
Population growth rate 36-41	0.65%	% p.a.	2021-2046	Queensland Government population projections, 2023 edition
Population growth rate 41-46	0.51%	% p.a.	2021-2046	Queensland Government population projections, 2023 edition
Initial no. of separate houses	28,877	no.	2021	Selected SA2s from ABS 2021 Census
Initial no. of townhouses	3,663	no.	2021	Selected SA2s from ABS 2021 Census
Initial no. of apartments	1,283	no.	2021	Selected SA2s from ABS 2021 Census
No. of business growth rate 18-22	3.15%	%	2018-2022	Calculated based on ABS Australian businesses 2018-2022 by Statistical Area Level 2 (SA2)
Initial no. of businesses	4,316	no.	2021	ABS Australian businesses 2022 by Statistical Area Level 2 (SA2)
People per separate houses	2.47	no.	2021	Selected SA2s from ABS 2021 Census
People per townhouses	1.68	no.	2021	Selected SA2s from ABS 2021 Census
People per apartments	1.47	no.	2021	Selected SA2s from ABS 2021 Census
Proportion of growth – Separate houses	90%	%	N/A	Calculated based on existing no. of ppl per dwelling
Proportion of growth – Townhouse	8%	%	N/A	Calculated based on existing no. of ppl per dwelling
Proportion of growth – Apartment	2%	%	N/A	Calculated based on existing no. of ppl per dwelling

Number of residents per property category

Year	Year no.	Population	Private house	Townhouses	Apartments	Businesses
2024	0	77,733	28,328	3,593	1,259	4,737
2025	1	78,989	28,785	3,651	1,279	4,886
2026	2	80,265	29,250	3,710	1,300	5,040
2027	3	81,561	29,723	3,770	1,321	5,199
2028	4	82,495	30,063	3,813	1,336	5,362
2029	5	83,439	30,407	3,857	1,351	5,531
2030	6	84,394	30,755	3,901	1,366	5,706
2031	7	85,359	31,107	3,946	1,382	5,885
2032	8	86,336	31,463	3,991	1,398	6,071
2033	9	87,092	31,738	4,026	1,410	6,262
2034	10	87,855	32,016	4,061	1,422	6,459
2035	11	88,625	32,297	4,097	1,435	6,663
2036	12	89,401	32,580	4,133	1,448	6,873
2037	13	90,184	32,865	4,169	1,460	7,089
2038	14	90,774	33,080	4,196	1,470	7,312
2039	15	91,368	33,297	4,224	1,479	7,543
2040	16	91,966	33,514	4,251	1,489	7,780
2041	17	92,568	33,734	4,279	1,499	8,025

Year	Year no.	Population	Private house	Townhouses	Apartments	Businesses
2042	18	93,173	33,954	4,307	1,509	8,278
2043	19	93,644	34,126	4,329	1,516	8,539
2044	20	94,117	34,298	4,351	1,524	8,808
2045	21	94,593	34,472	4,373	1,532	9,085
2046	22	95,071	34,646	4,395	1,539	9,372
2047	23	95,551	34,821	4,417	1,547	9,667
2048	24	96,034	34,997	4,439	1,555	9,971
2049	25	96,519	35,174	4,462	1,563	10,285
2050	26	97,007	35,351	4,484	1,571	10,609
2051	27	97,497	35,530	4,507	1,579	10,944
2052	28	97,989	35,710	4,530	1,587	11,288
2053	29	98,484	35,890	4,553	1,595	11,644

Water supply and security inputs: estimated costs (WTP) of water restrictions

Ratios of cost of restrictions to separate houses		
Parameter	Value	Source
Townhouses	50%	NSW DPE Regional water value functions
Apartments	\$5.00	NSW DPE Regional water value functions
Businesses	462%	NSW DPE Regional water value functions
Cost curve approach		
Function parameters	Value	Source
Scale parameter	1825.3	NSW DPE Regional water value functions
Elasticity parameter	2.5	NSW DPE Regional water value functions
Income adjustments for unit cost of restrictions		
Parameter	Value	Source
Real household income growth rate	2.60%	ABS national average real wage growth, all sector, 2010-2023
Income elasticity of cost of restrictions	0.50%	NSW DPE Regional water value functions

The proportion of time spent at each level of water restriction in the existing (without-water grid) and future (with water grid) conditions.

Summary of Water Restrictions - Without Interconnector							
	2021	2026	2031	2036	2041	2046	2051
% of time spent in level 2	9.83%	10.57%	11.26%	11.99%	12.55%	13.08%	13.61%
% of time spent in level 3	3.62%	4.02%	4.50%	5.17%	5.76%	6.33%	6.90%
% of time spent in level 4	0.32%	0.45%	0.63%	0.87%	1.15%	1.48%	1.85%
TOTAL % of time in restrictions	13.77%	15.04%	16.38%	18.03%	19.46%	20.89%	22.37%
Summary of Water Restrictions - With Interconnector							
	2021	2026	2031	2036	2041	2046	2051
% of time spent in level 2	9.83%	10.63%	11.36%	12.21%	12.83%	13.38%	13.88%
% of time spent in level 3	3.62%	4.13%	4.70%	5.48%	6.22%	6.98%	7.74%
% of time spent in level 4	0.32%	0.25%	0.28%	0.25%	0.26%	0.36%	0.53%
TOTAL % of time in restrictions	13.77%	15.02%	16.34%	17.94%	19.31%	20.72%	22.15%