

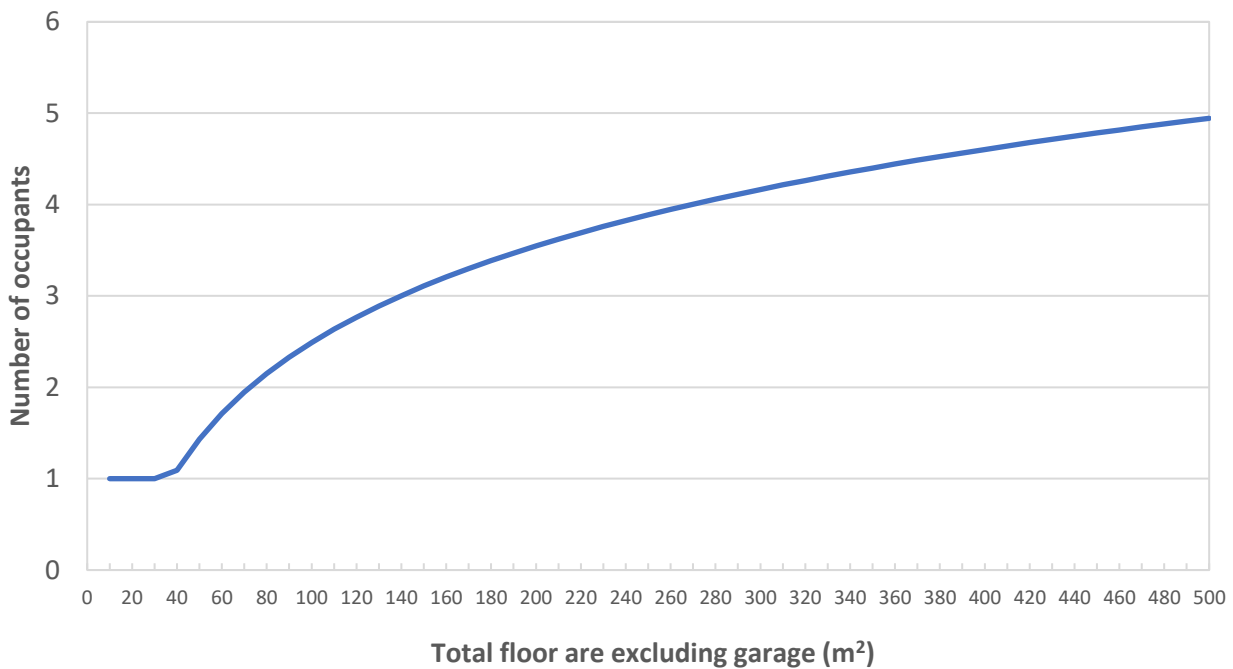
BASIX standard occupancy rates to determine energy and water use

Energy use

- BASIX estimates the number of occupants (N_{occ}) from proposed dwellings with the following equation. The number of occupants estimated is used to determine the greenhouse gas emissions from proposed dwellings and to compare the emissions from the baseline amount (or benchmark).

$$N_{occ} = 1.525 \times \ln(A_D) - 4.533$$

- Note that A_D represents the total floor area excluding garage, and the value of N_{occ} is bounded between 1 and 6 inclusive.
- The value of N_{occ} varies with A_D as shown in the graph below:



- You can download the calculator to find out the occupancy rate to determine energy use based on the total floor area of the proposed dwelling:

[BASIX occupancy calculator \(xls 60 KB\)](#)

Water use

- Based on the dwelling type and the number of bedrooms, the average number of occupants assumed in the BASIX calculations to determine water use from proposed dwellings is listed in the following tables according to occupancy zones.
- Click on the following maps to find out more about the occupancy zones across NSW:

[BASIX occupancy zones to determine water use – Regional Areas \(pdf 1839 KB\)](#)

[BASIX occupancy zones to determine water use – Sydney Metropolitan Area \(pdf 1981 KB\)](#)

You can download the lookup calculator to find out the occupancy rate to determine water use from your postcode and building type:

[BASIX occupancy calculator \(xls 60 KB\)](#)

Occupancy zones 101 – 106:

Number of bedrooms	101	102	103	104	105	106
	Capital Region	Central Coast	Central West	Coffs Harbour - Grafton	Far West and Orana	Hunter Valley excl Newcastle
Detached house						
0	1.76	2.01	1.71	1.85	1.73	1.78
1	1.59	1.40	1.48	1.53	1.57	1.43
2	1.82	1.94	1.78	1.81	1.85	1.70
3	2.42	2.69	2.46	2.41	2.52	2.42
4	3.16	3.48	3.23	3.14	3.27	3.25
5 or more	3.56	4.15	3.74	3.52	3.29	3.93

Number of bedrooms	101	102	103	104	105	106
	Capital Region	Central Coast	Central West	Coffs Harbour - Grafton	Far West and Orana	Hunter Valley excl Newcastle

Attached house

0	1.03	1.20	1.05	1.00	1.40	1.35
1	1.15	1.24	1.12	1.16	1.38	1.11
2	1.58	1.76	1.50	1.66	1.68	1.45
3	2.14	2.47	2.25	2.29	2.05	2.08
4	2.86	3.41	3.17	2.99	3.26	3.08
5 or more	3.31	3.75	2.29	2.40	3.62	3.13

Number of bedrooms	101	102	103	104	105	106
	Capital Region	Central Coast	Central West	Coffs Harbour - Grafton	Far West and Orana	Hunter Valley exc Newcastle

Units (low-rise, mid-rise and high-rise)

0	1.17	1.14	1.07	1.17	1.18	1.15
1	1.19	1.26	1.10	1.11	1.27	1.10
2	1.58	1.86	1.45	1.55	1.60	1.45
3	2.13	2.43	2.11	2.18	2.43	2.02
4	2.59	3.05	2.72	2.50	2.50	2.69
5 or more	2.48	2.46	2.40	2.50	1.43	2.44

Occupancy zones 107 – 111:

Number of bedrooms	107	108	109	110	111
	Illawarra	Mid North Coast	Murray	New England and North West	Newcastle and Lake Macquarie
Detached house					
0	1.76	1.76	2.07	1.71	1.75
1	1.46	1.49	1.46	1.56	1.40
2	1.82	1.81	1.72	1.88	1.71
3	2.54	2.39	2.45	2.54	2.43
4	3.40	3.11	3.24	3.21	3.28
5 or more	3.98	3.74	3.62	3.58	3.93
Attached house					
0	1.26	1.33	1.25	1.22	1.13
1	1.17	1.14	1.09	1.15	1.11
2	1.64	1.52	1.50	1.56	1.46
3	2.33	2.04	2.11	2.11	2.09
4	3.42	2.87	2.85	3.03	3.14
5 or more	2.89	2.65	3.06	1.73	3.13

Number of bedrooms	107	108	109	110	111
	Illawarra	Mid North Coast	Murray	New England and North West	Newcastle and Lake Macquarie
Units (low-rise, mid-rise and high-rise)					
0	1.18	1.04	1.13	1.04	1.07
1	1.16	1.13	1.12	1.18	1.11
2	1.66	1.49	1.48	1.61	1.46
3	2.33	2.04	2.11	2.22	2.05
4	3.21	2.60	2.74	2.74	2.76
5 or more	2.54	2.34	2.73	3.08	2.44

Occupancy zones 112 – 117:

Number of bedrooms	112	113	114	115	116	117
	Richmond - Tweed	Riverina	Southern Highlands and Shoalhaven	Sydney - Baulkham Hills and Hawkesbury	Sydney - Blacktown	Sydney - City and Inner South
Detached house						
0	1.71	1.99	1.71	2.25	2.33	1.93
1	1.55	1.46	1.54	1.50	1.54	1.44
2	1.90	1.77	1.80	2.02	2.02	2.04
3	2.48	2.48	2.40	2.76	2.82	2.81
4	3.22	3.29	3.12	3.55	3.60	3.60
5 or more	3.76	3.78	3.56	4.15	4.15	4.15

Number of bedrooms	112	113	114	115	116	117
	Richmond - Tweed	Riverina	Southern Highlands and Shoalhaven	Sydney - Baulkham Hills and Hawkesbury	Sydney - Blacktown	Sydney - City and Inner South

Attached house

0	1.30	1.00	1.03	1.44	1.47	1.26
1	1.20	1.12	1.15	1.28	1.31	1.32
2	1.60	1.58	1.53	1.82	1.96	1.93
3	2.20	2.21	2.10	2.61	2.74	2.65
4	3.01	3.17	2.92	3.38	3.59	3.46
5 or more	2.91	2.88	3.31	3.75	3.75	3.75

Number of bedrooms	112	113	114	115	116	117
	Richmond - Tweed	Riverina	Southern Highlands and Shoalhaven	Sydney - Baulkham Hills and Hawkesbury	Sydney - Blacktown	Sydney - City and Inner South

Units (low-rise, mid-rise and high-rise)

0	1.14	1.15	1.10	1.29	1.20	1.19
1	1.15	1.14	1.15	1.28	1.28	1.35
2	1.59	1.56	1.53	1.95	2.13	2.03
3	2.20	2.20	2.08	2.53	2.78	2.62
4	2.93	3.20	2.75	3.12	3.22	3.09
5 or more	2.07	2.40	2.48	2.46	2.46	2.46

Occupancy zones 118 – 122:

Number of bedrooms	118	119	120	121	122
	Sydney - Eastern Suburbs	Sydney - Inner South West	Sydney - Inner West	Sydney - North Sydney and Hornsby	Sydney - Northern Beaches
Detached house					
0	1.96	2.27	2.08	2.02	2.03
1	1.45	1.51	1.46	1.45	1.49
2	2.03	2.07	2.04	2.01	2.04
3	2.77	2.85	2.80	2.76	2.78
4	3.58	3.63	3.59	3.54	3.55
5 or more	4.15	4.15	4.15	4.15	4.15
Attached house					
0	1.36	1.26	1.32	1.34	1.23
1	1.34	1.27	1.30	1.28	1.28
2	1.94	1.99	1.95	1.92	1.90
3	2.67	2.70	2.67	2.59	2.64
4	3.49	3.58	3.48	3.41	3.44
5 or more	3.75	3.75	3.75	3.75	3.75

Number of bedrooms	118	119	120	121	122
	Sydney - Eastern Suburbs	Sydney - Inner South West	Sydney - Inner West	Sydney - North Sydney and Hornsby	Sydney - Northern Beaches
Units (low-rise, mid-rise and high-rise)					
0	1.18	1.34	1.23	1.19	1.17
1	1.33	1.35	1.35	1.34	1.33
2	2.00	2.13	2.06	2.00	2.01
3	2.57	2.74	2.63	2.54	2.53
4	3.19	3.30	3.22	3.10	3.16
5 or more	2.46	2.46	2.46	2.46	2.46

Occupancy zones 123 – 128:

Number of bedrooms	123	124	125	126	127	128
	Sydney - Outer South West	Sydney - Outer West and Blue Mountains	Sydney - Parramatta	Sydney - Ryde	Sydney - South West	Sydney - Sutherland
Detached house`						
0	2.27	2.10	2.27	2.26	2.45	2.10
1	1.51	1.47	1.51	1.49	1.58	1.49
2	2.00	1.95	2.08	2.02	2.10	2.02
3	2.78	2.73	2.85	2.77	2.87	2.77
4	3.56	3.53	3.61	3.55	3.65	3.56
5 or more	4.15	4.15	4.15	4.15	4.15	4.15

Number of bedrooms	123	124	125	126	127	128
	Sydney - Outer South West	Sydney - Outer West and Blue Mountains	Sydney - Parramatta	Sydney - Ryde	Sydney - South West	Sydney - Sutherland

Attached house

0	1.51	1.19	1.31	1.32	1.43	1.16
1	1.28	1.23	1.26	1.26	1.28	1.24
2	1.86	1.78	1.98	1.91	2.02	1.83
3	2.62	2.54	2.76	2.64	2.79	2.56
4	3.52	3.44	3.59	3.49	3.61	3.41
5 or more	3.75	3.75	3.75	3.75	3.75	3.75

# bedrooms	123	124	125	126	127	128
	Sydney - Outer South West	Sydney - Outer West and Blue Mountains	Sydney - Parramatta	Sydney - Ryde	Sydney - South West	Sydney - Sutherland

Units (low-rise, mid-rise and high-rise)

0	1.26	1.14	1.32	1.35	1.23	1.19
1	1.26	1.27	1.34	1.33	1.32	1.28
2	1.90	1.90	2.13	2.02	2.15	1.96
3	2.43	2.54	2.75	2.64	2.78	2.50
4	3.05	3.24	3.32	3.20	3.16	3.00
5 or more	2.46	2.46	2.46	2.46	2.46	2.46