

RAINFALL DATA IN WIDE FORMAT

Bureau of Meteorology station number	1-1-67	1/2/1967	1-3-67	1-4-67	1-5-67
9151	0	0.3	1	0	5
9152	0	2.5	2	0	0.7
9153	0	3.4	3	0	0
9154	0	0	4	1.2	0
9155	0	0	5	0	0
9156	0	NA	6	0	0
9157	0	21	7	0	0
9158	1967	1	8		

WEATHER STATION DATA IN LONG FORMAT

Bureau of Meteorology product IDCJMC0014.					Produced: 06 Jan 2020					
Australian stations measuring total monthly rainfall										
Site	Name	Lat	Lon	Start	End	Years	%	AWS		
1000	KARUNJIE	-16.2919	127.1956	Oct 1940	Aug 1981	24.9	61	N		
1001	OOMBULGURRI	-15.1806	127.8456	Jan 1914	Jan 2011	56.4	58	N		
1003	PAGO MISSION	-14.1331	126.7158	Nov 1908	Apr 1940	31.5	100	N		
1004	KUNMUNYA	-15.4167	124.7167	Jan 1915	Dec 1948	34.0	100	N		
1005	WYNDHAM PORT	-15.4644	128.1000	Nov 1886	Mar 1995	101.2	93	N		
1006	WYNDHAM AERO	-15.5100	128.1503	Feb 1951	Dec 2019	35.7	52	Y		
1007	TROUGHTON ISLAND	-13.7542	126.1485	Sep 1956	Dec 2019	34.3	54	Y		
1008	MOUNT ELIZABETH OLD SITE	-16.3017	126.1825	Sep 1959	Nov 1977	18.1	99	N		
1009	KURI BAY	-15.4875	124.5222	Aug 1961	Mar 2012	45.8	90	N		
1010	THEDA	-14.7885	126.4963	Oct 1965	Dec 2019	52.3	96	N		
1011	PANTA DOWNS	-16.0497	124.9500	Dec 1966	Jan 1969	1.8	81	N		
1012	MITCHELL PLATEAU	-14.7925	125.8258	Jan 1968	Oct 1986	18.7	99	N		
1013	WYNDHAM	-15.4869	128.1236	Apr 1968	Dec 2019	51.8	100	N		
1014	EMMA GORGE	-15.9083	128.1286	Jan 1998	Feb 2019	16.9	80	N		
1016	CARSON RIVER STATION	-14.4861	126.7664	Dec 1970	Mar 1997	15.7	59	N		
1017	NULLA NULLA	-15.5000	127.8333	Apr 1923	Sep 1926	3.4	97	N		
1018	MOUNT ELIZABETH	-16.4181	126.1025	Feb 1973	Dec 2019	45.9	98	N		
1019	KALUMBURU	-14.2964	126.6453	Sep 1998	Dec 2019	21.3	100	Y		
1020	TRUSCOTT	-14.0900	126.3867	May 2004	Dec 2019	15.6	99	Y		
1021	KALUMBURU MISSION	-14.2961	126.6431	Sep 1941	Mar 2005	63.5	100	N		
1022	WYNDHAM SIX MILE HOTEL	-15.4997	128.1997	Jan 1900	Dec 1917	8.7	48	N		
1023	EL QUESTRO	-16.0086	127.9806	Dec 1967	Dec 2019	34.2	66	N		
1024	ELLENBRAE	-15.9572	127.0628	Jan 1987	Dec 2019	27.4	83	N		
1025	DOONGAN	-15.3797	126.3114	Jan 1988	Dec 2019	31.8	99	N		
1026	DRYSDALE RIVER STATION	-15.7031	126.3781	Jan 1988	Dec 2019	31.5	98	N		
1027	DIGGERS REST	-15.6394	128.0803	Jan 1971	Dec 2019	24.3	49	N		
1028	HOME VALLEY	-15.7231	127.8292	Aug 1991	Mar 2019	16.3	59	N		
1029	WYNDHAM NORTH	-15.4467	128.1075	Sep 1989	Feb 1995	4.5	82	N		
1030	KIMBERLEY COASTAL CAMP	-14.5786	125.9133	Nov 1995	Dec 2013	9.3	51	N		
1031	FARAWAY BAY	-13.9600	127.1964	Nov 1996	Dec 2019	22.3	96	N		

# TIDYING DATA – WIDE TO LONG

table4a

country	1999	2000
A	0.7K	2K
B	37K	80K
C	212K	213K

→

country	year	cases
A	1999	0.7K
B	1999	37K
C	1999	212K
A	2000	2K
B	2000	80K
C	2000	213K

key value

## TIDY RAINFALL DATA

station_code	city_name	year	month	day	rainfall	period	quality	lat	long	station_name
9151	Perth	2019	1	15	0	NA	N	-31.98	115.79	Subiaco Wastewater Treatment Plant
9151	Perth	2019	1	16	0	NA	N	-31.98	115.79	Subiaco Wastewater Treatment Plant
9151	Perth	2019	1	17	0	NA	N	-31.98	115.79	Subiaco Wastewater Treatment Plant
9151	Perth	2019	1	18	0	NA	N	-31.98	115.79	Subiaco Wastewater Treatment Plant
9151	Perth	2019	1	19	0	NA	N	-31.98	115.79	Subiaco Wastewater Treatment Plant
9151	Perth	2019	1	20	0	NA	N	-31.98	115.79	Subiaco Wastewater Treatment Plant
9151	Perth	2019	1	21	0	NA	N	-31.98	115.79	Subiaco Wastewater Treatment Plant
9151	Perth	2019	1	22	0	NA	N	-31.98	115.79	Subiaco Wastewater Treatment Plant
9151	Perth	2019	1	23	0	NA	N	-31.98	115.79	Subiaco Wastewater Treatment Plant
9151	Perth	2019	1	24	0	NA	N	-31.98	115.79	Subiaco Wastewater Treatment Plant
9151	Perth	2019	1	25	4	1	N	-31.98	115.79	Subiaco Wastewater Treatment Plant
9151	Perth	2019	1	26	0	NA	N	-31.98	115.79	Subiaco Wastewater Treatment Plant
9151	Perth	2019	1	27	0	NA	N	-31.98	115.79	Subiaco Wastewater Treatment Plant
9151	Perth	2019	1	28	0	NA	N	-31.98	115.79	Subiaco Wastewater Treatment Plant
9151	Perth	2019	1	29	0	NA	N	-31.98	115.79	Subiaco Wastewater Treatment Plant
9151	Perth	2019	1	30	0	NA	N	-31.98	115.79	Subiaco Wastewater Treatment Plant
9151	Perth	2019	1	31	0	NA	N	-31.98	115.79	Subiaco Wastewater Treatment Plant
9151	Perth	2019	2	1	0	NA	Y	-31.98	115.79	Subiaco Wastewater Treatment Plant
9151	Perth	2019	2	2	0	NA	Y	-31.98	115.79	Subiaco Wastewater Treatment Plant
9151	Perth	2019	2	3	0	NA	Y	-31.98	115.79	Subiaco Wastewater Treatment Plant
9151	Perth	2019	2	4	0	NA	Y	-31.98	115.79	Subiaco Wastewater Treatment Plant
9151	Perth	2019	2	5	0	NA	Y	-31.98	115.79	Subiaco Wastewater Treatment Plant
9151	Perth	2019	2	6	0	NA	Y	-31.98	115.79	Subiaco Wastewater Treatment Plant
9151	Perth	2019	2	7	0.2	1	Y	-31.98	115.79	Subiaco Wastewater Treatment Plant
9151	Perth	2019	2	8	0	NA	Y	-31.98	115.79	Subiaco Wastewater Treatment Plant
9151	Perth	2019	2	9	0	NA	Y	-31.98	115.79	Subiaco Wastewater Treatment Plant

```
rain_tidy <- read_csv("rain_raw.csv") %>%
  janitor::clean_names() %>%
  gather(-bureau, key = year, value = rainfall)
```