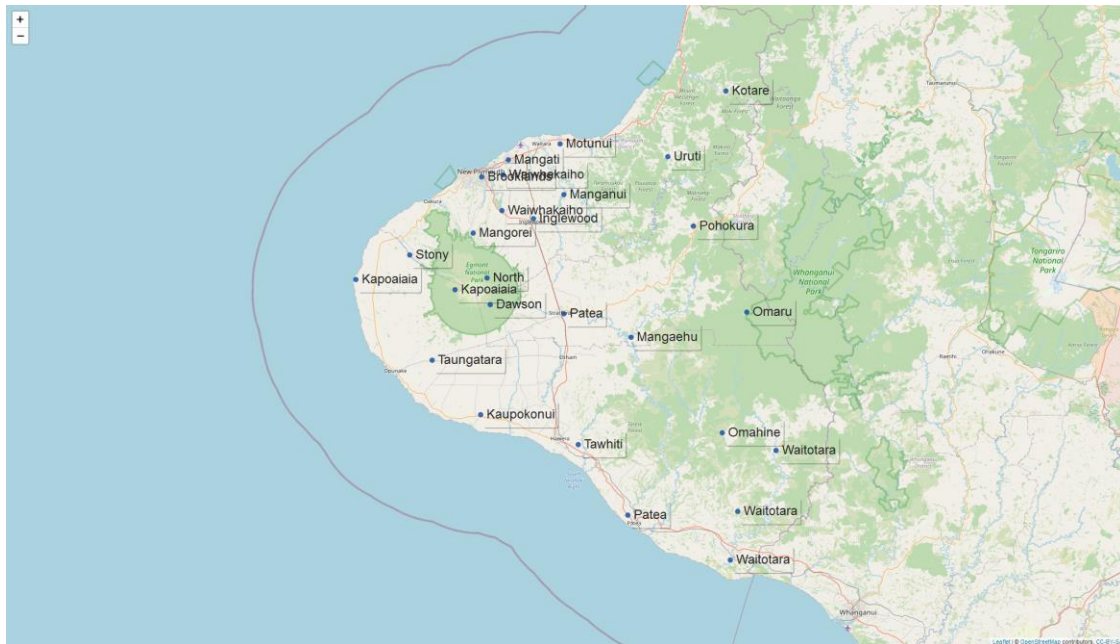


Taranaki Regional Council Monthly Rainfall and Environmental Data Report for June 2022

Provisional Data Only. Note: some sites record a number of parameters

1. Rainfall at 27 sites throughout the region



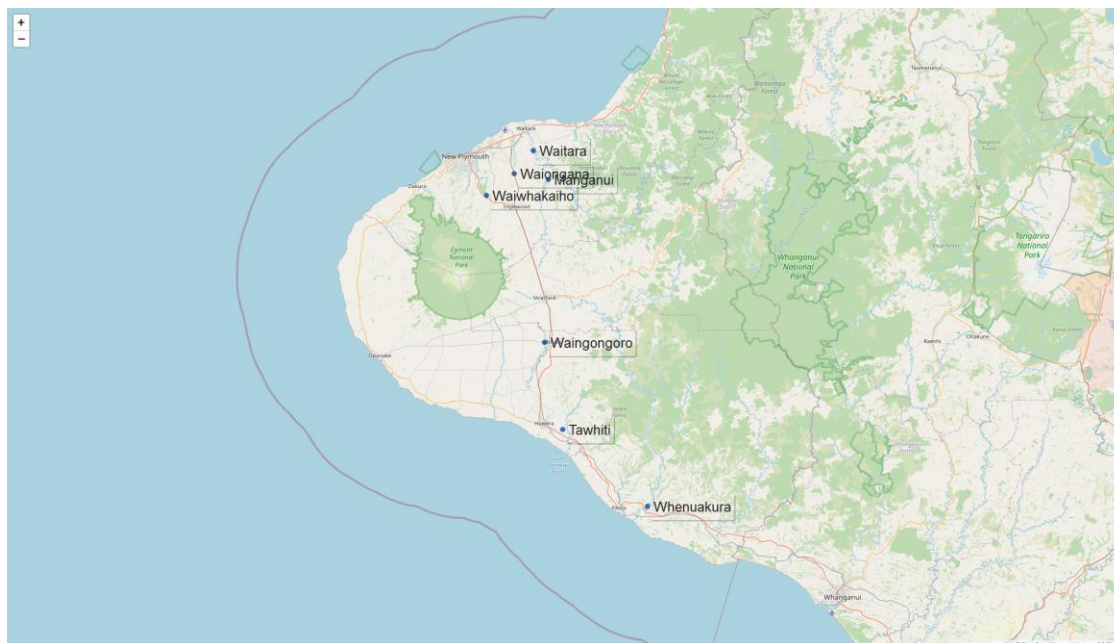
Map1: Rain gauge sites

Table 1: Rainfall monthly and year to date totals at 27 rain gauge sites in Taranaki.

	June			Year to Date			
Hydro_Sites	# days > 0.5 mm	Total Rainfall (mm)	% of typical month	Total to date (mm)	% of typical year to date	% of typical full year	Records Began
North Egmont at Visitors Centre	8	658.0	98.4	2915.0	99.0	43.4	1991
Dawson Falls	5	906.0	191.2	3102.5	151.4	68.9	1933
Kahui Hut	4	507.0	96.4	2172.0	99.7	44.2	2006
Mangorei Upper at Forest Hill	9	434.0	139.9	1946.0	128.4	54.4	2017
Waiwhakaiho at Hillsborough	10	212.5	121.0	969.5	114.1	54.9	2012

	June			Year to Date			
Hydro_Sites	# days > 0.5 mm	Total Rainfall (mm)	% of typical month	Total to date (mm)	% of typical year to date	% of typical full year	Records Began
Brooklands Zoo at New Plymouth	8	220.8	149.6	855.2	119.8	55.4	2011
Mangati at SH3	9	207.2	148.2	838.8	125.5	60.5	2013
Motunui M39 at Weston W3	7	275.6	166.6	819.2	110.7	52.0	1998
Waiwhakaiho at Egmont Village	9	378.0	171.2	1375.5	130.6	58.6	1991
Manganui at Everett Park	9	309.0	165.6	985.0	104.9	47.7	1987
Inglewood at Oxidation Ponds	8	302.0	132.7	1124.5	111.4	48.8	1999
Patea at Stratford	10	223.0	119.3	987.5	115.1	51.1	1999
Mangaehu at Bridge	9	239.5	160.7	914.5	131.6	59.3	1999
Kotare at OSullivans	9	327.5	174.3	890.0	95.5	41.4	1998
Uruti at Kaka Rd	9	363.0	195.9	1036.0	109.2	47.6	1991
Pohokura Saddle	8	349.0	205.8	895.5	106.4	46.0	1991
Stony at Mangatete Bridge	8	250.5	140.3	1142.5	131.4	60.9	2004
Kapoaiaia at Lighthouse	8	179.6	144.4	1151.2	198.8	94.9	1930
Taungatara at Eltham Rd	8	187.0	132.6	1027.5	156.3	69.5	2005
Kaupokonui at Glenn Rd	8	134.0	117.2	765.0	150.9	67.8	1998
Tawhiti at Duffys	10	106.5	101.1	706.0	141.9	64.9	1993
Patea at Bore 3	6	143.0	136.3	750.0	146.0	65.7	2005
Omaru at Charlies	6	265.5	158.4	920.5	120.1	53.5	2005
Omahine at Moana Trig	8	195.0	114.6	906.5	118.0	53.4	2006
Waitotara at Rimunui Station	12	224.0	165.7	790.5	132.4	59.0	1993
Waitotara at Ngutuwera	10	159.0	128.6	735.5	129.9	58.1	1998
Waitotara at Hawken Rd	9	155.6	179.7	716.2	146.8	69.1	2016

2. River Flow at 8 sites in Taranaki

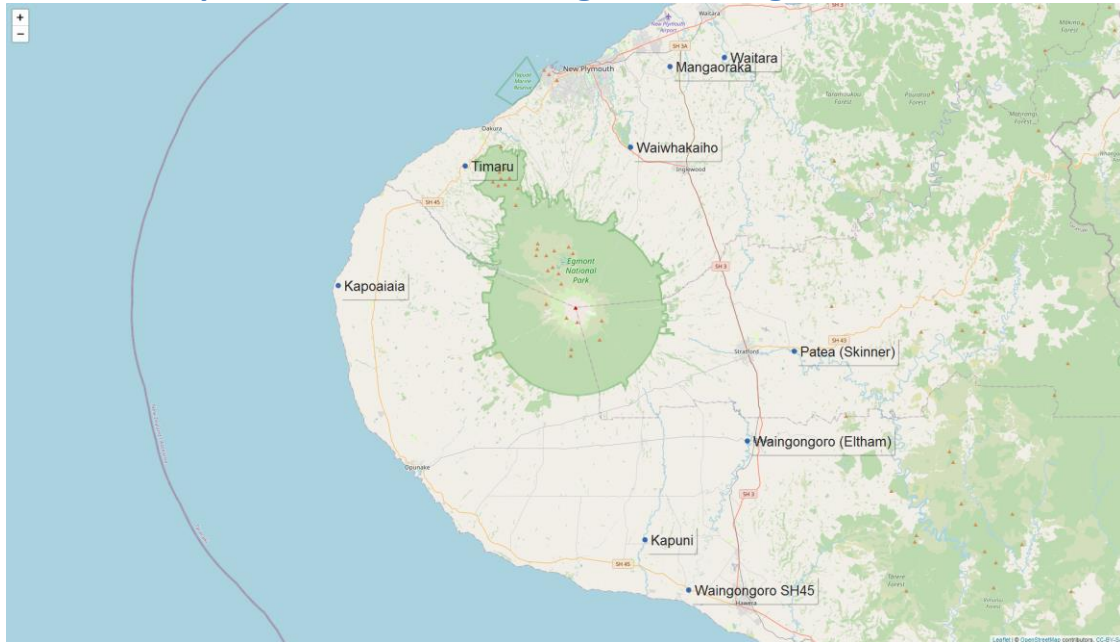


Map2: Flow sites

Table 2: Summary of maximum, minimum and mean flow for the current reporting month and the same month for all preceding years of record.

Recorded flows (m3/sec)								
River and Site	Maximum		Minimum		Mean		Years of record	Records Began
	June 2022	June all previous years	June 2022	June all previous years	June 2022	June all previous years		
Waitara at Bertrand Rd	519.86	1669.86	24.38	6.70	133.54	76.67	42	1980
Manganui at Everett Park	226.53	827.73	9.38	3.82	38.17	26.06	31	1991
Waiwhakaiho at SH3	79.97	508.76	3.05	2.03	11.74	10.43	42	1980
Waiongana at SH3a	51.51	194.42	1.70	0.46	5.19	3.83	42	1980
Waingongoro at Eltham Rd	20.83	123.65	1.66	0.51	5.25	4.21	47	1975
Pūnehu at Pihama*	14.17	59.02	0.80	0.31	2.08	1.93	52	1970
Tawhiti at Duffy's Farm	1.86	15.52	0.60	0.17	1.13	1.01	37	1985
Whenuakura at Nicholson Rd	166.23	491.49	6.67	2.10	23.83	14.63	39	1983

3. River Temperature at 8 sites throughout the region

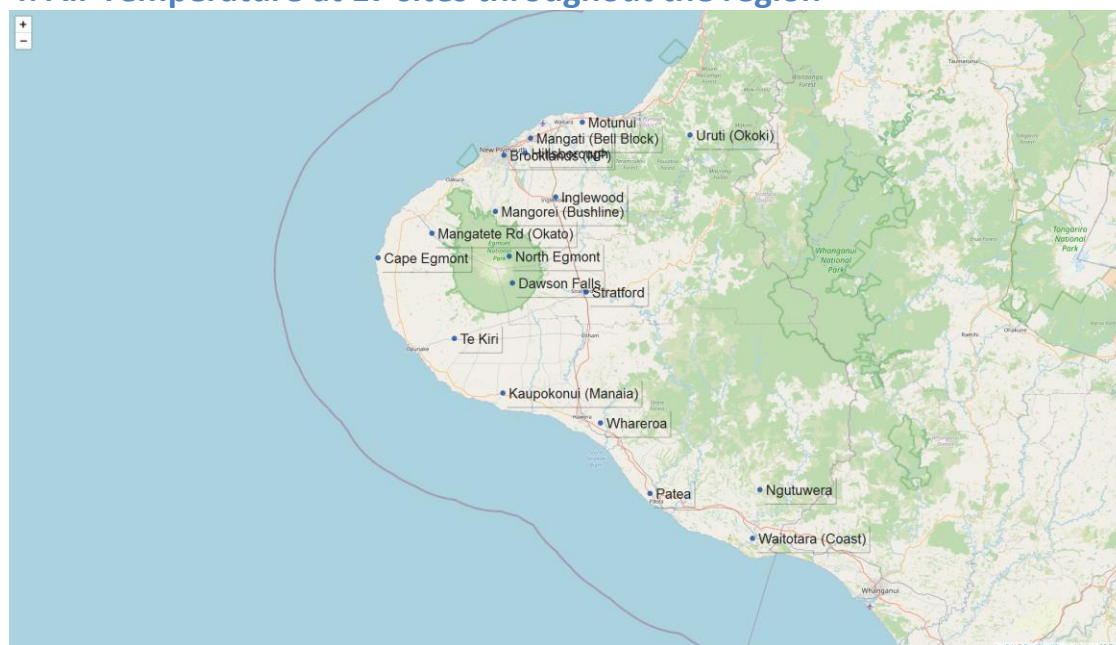


Map3: Temperature Measurement Stations

Table 3: Summary of maximum, minimum and mean river temperature for the current reporting month and the same month for all preceding years of record.

Monthly River Temperatures (°C)								
	Maximum		Minimum		Mean			
River and Site	June 2022	June all previous years	June 2022	June all previous years	June 2022	June all previous years	Years of record	Records Began
Kapoiaiaia	15.34	15.60	7.24	3.90	11.78	10.77	24	1998
Kapuni	13.19	14.40	8.00	4.50	10.95	9.83	23	1999
Mangaoraka	15.15	14.90	10.38	6.70	12.98	11.48	18	2004
Patea (Skinner)	13.55	13.51	8.02	5.30	11.28	10.02	18	2004
Timaru	14.11	13.63	8.31	7.15	11.67	10.79	9	2013
Waingongoro (Eltham)	12.74	13.40	8.22	5.30	10.95	10.15	18	2000
Waitara	13.50	14.23	9.29	5.80	11.95	10.20	36	1981
Waiwhakaiho	13.13	13.34	6.69	4.60	10.19	9.29	32	1981

4. Air Temperature at 17 sites throughout the region



Map4: Temperature Measurement Stations

Table 4: Summary of maximum, minimum and mean air temperature for the current reporting month and the same month for all preceding years of record.

Monthly Air Temperatures (°C)								
	Maximum		Minimum		Mean			
Site	June 2022	June all previous years	June 2022	June all previous years	June 2022	June all previous years	Years of record	Records Began
Dawson Falls	12.54	14.70	0.03	-1.24	6.56	5.91	7	2015
Brooklands (NP)	19.33	21.60	2.96	0.74	12.21	11.50	10	2012
Hillsborough	17.98	18.23	2.79	0.69	12.05	11.43	10	2012
Inglewood	16.18	20.74	-1.21	-1.34	9.81	9.71	10	2012
Cape Egmont	18.50	19.69	4.35	1.14	13.46	12.34	10	2012
Kaupokonui (Manaia)	18.87	20.19	1.97	0.18	12.06	11.18	7	2015
Mangati (Bell Block)	18.38	20.42	2.03	-0.47	12.29	11.60	9	2013
Mangorei (Bushline)	15.17	17.03	3.17	1.53	10.13	9.24	5	2017
Motunui	17.98	19.37	2.97	0.47	11.83	10.92	5	2017

Monthly Air Temperatures (°C)								
	Maximum		Minimum		Mean			
Site	June 2022	June all previous years	June 2022	June all previous years	June 2022	June all previous years	Years of record	Records Began
Ngutuwera	17.55	18.52	2.07	0.42	11.25	10.42	4	2018
North Egmont	11.67	15.53	-0.06	-1.48	6.70	6.03	7	2015
Patea	18.61	20.27	2.41	0.38	11.78	11.26	9	2013
Mangatete Rd (Okato)	17.18	19.64	2.40	1.82	11.47	11.32	6	2016
Te Kiri	17.25	19.70	3.29	-0.03	11.43	10.65	7	2015
Whareroa	19.04	19.26	-1.32	-2.08	11.13	10.18	9	2013
Uruti (Okoki)	15.96	18.32	2.13	0.04	10.29	9.58	4	2018
Waitotara (Coast)	18.77	19.61	2.55	1.16	11.54	10.99	6	2016

5. Soil Moisture at 11 sites throughout the region

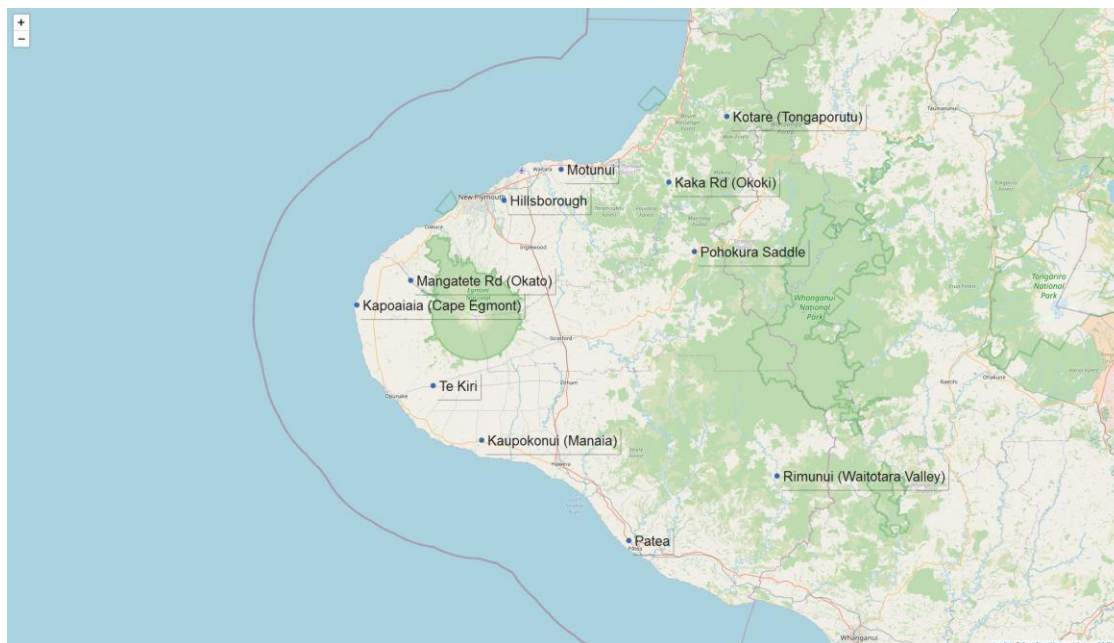


Table 5: Summary of maximum, minimum and mean soil moisture for the current reporting month and the same month for all preceding years of record.

Monthly Soil Moisture Extremes (%)								
	Maximum		Minimum		Mean			
Site	June 2022	June all previous years	June 2022	June all previous years	June 2022	June all previous years	Years of record	Records Began
Hillsborough	35.46	41.46	29.52	23.74	31.79	28.94	10	2012
Kaka Rd (Okoki)	45.16	59.40	38.21	15.70	40.39	42.19	18	2004
Kapoiaia (Cape Egmont)	28.26	52.30	25.94	22.84	26.86	28.79	15	2005
Kaupokonui (Manaia)	44.67	48.60	35.76	21.40	39.38	32.85	17	2005
Kotare (Tongaporutu)	58.26	58.51	37.97	34.00	42.28	41.68	10	2012
Mangatete Rd (Okato)	28.99	34.42	17.09	10.50	20.04	18.04	6	2016
Motunui	32.60	50.00	29.23	19.30	30.44	30.66	14	2008
Patea	35.57	42.40	26.88	20.80	29.12	30.21	16	2006
Pohokura Saddle	58.00	59.07	43.93	28.60	48.91	42.63	16	2006
Rimunui (Waitotara Valley)	36.56	61.62	27.69	17.04	29.94	32.27	14	2006

Monthly Soil Moisture Extremes (%)								
	Maximum		Minimum		Mean			
Site	June 2022	June all previous years	June 2022	June all previous years	June 2022	June all previous years	Years of record	Records Began
Te Kiri	38.56	59.80	28.91	21.36	31.27	38.78	14	2008

6: Soil Temperature at 11 sites throughout the region

Table 6: Summary of maximum, minimum and mean soil temperature for the current reporting month and the same month for all preceding years of record.

Monthly Soil Temperatures (°C)								
	Maximum		Minimum		Mean			
Site	June 2022	June all previous years	June 2022	June all previous years	June 2022	June all previous years	Years of record	Records Began
Hillsborough	14.80	14.26	10.29	7.06	12.72	11.53	10	2012
Kaka Rd (Okoki)	13.67	13.81	9.87	4.80	11.81	10.27	18	2004
Kapoaiaia (Cape Egmont)	16.62	15.52	8.19	6.60	12.97	11.53	17	2005
Kaupokonui (Manaia)	14.30	13.80	9.40	5.30	12.04	10.68	17	2005
Kotare (Tongaporutu)	13.81	13.58	8.12	4.44	11.26	10.15	10	2012
Mangatete Rd (Okato)	14.60	13.80	5.90	7.40	10.85	10.55	5	2016
Motunui	15.22	14.23	10.00	5.30	12.70	10.74	14	2008
Patea	14.13	13.88	8.40	5.20	11.62	10.59	16	2006
Pohokura Saddle	13.52	13.13	7.83	5.60	10.64	9.90	16	2006
Rimunui (Waitotara Valley)	13.81	14.80	7.55	6.50	10.89	10.62	16	2006
Te Kiri	14.40	14.10	8.10	5.60	11.43	10.70	14	2008

Summary of months conditions

Rainfall

Rainfall for June was on average 146.5% of the long-term average, and ranged from 96.4% at Kahui Hut to 205.8% at Pohokura Saddle. Rainfall was elevated on the southern side of the Maunga and central and northern hill country.

Year to date rainfall is sitting between 95.5% (Kotare at OSullivans) and 198.8% (Kapoiaia at Lighthouse) with an average of 126.9% of normal. North and eastern hill country rain gauges are showing rain below normal, while most other locations are close to or above normal. Cape Egmont remains at around 198.8% of normal to date and has already received 95% of a typical years rain in 6 months.

River Flow

Mean river flows for June were way up from May, and are generally above typical June averages at around 159.2% of normal. The minimum flows were also well above typical lows for June (at 299.6% of long term values). Maximum flows at the 8 sites were all below (on average 27.8% of) typical June values.

River Water Temperature

Mean river water temperatures were an average of 1.2°C above long-term June values. Nighttime-low water temperatures were on average 2.9°C above historic lows, this fits a general trend to warmer nighttime temperatures throughout the region. Peak temperatures were similar to historic highs (as in May).

Air Temperature

The average air temperature for the region, excluding Te Maunga, was 11.2°C, which is 0.7°C higher than the long term June average. Minimum air temperatures for June were on average 1.8°C above previously recorded lows.

Soil Moisture

Mean soil moistures for June were close to typical values. On average, minimum soil moistures were 0.31% above previous lows, and the maxima well below previous highs. The average range for soil moisture was 9.2%.

Soil Temperature

Like May, June soil temperatures were generally 1.1°C above the long-term average. Nighttime minimum soil temperatures were on average 2.7°C above recorded minima, and maximum June soil temperatures were on average 0.4°C below long-term maximum June values.

Report date 18 July, 2022.