

TARANAKI REGIONAL COUNCIL MONTHLY RAINFALL AND RIVER REPORT FOR MAY 2022

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

1. Rainfall at 27 sites throughout the region

Rainfall for May was generally above the long-term May average, ranging from 85.1% to 179.4%, with an average of 118% of normal. Rainfall was higher around the Maunga and Ring Plain, and in the south of the region. Rain gauges from Stratford north east generally recorded below average rainfall for the month.

Year to date rainfall is sitting between 75.6% and 213.4% with an average of 121.8% 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 over 200% of normal to date and has already received 80% of a typical years rain in 5 months. Note: In last months rain total maps the values for Taungatara were incorrectly displayed at Glen Rd. The values for April at Glenn Road were 46/46% and 487/171%.

Table 1: Rainfall for May and the year to date at 27 rain gauge sites in Taranaki.

Hydro_Sites	Monthly			Year to Date			Records Began
	# days > 0.5 mm	Total Rainfall (mm)	% of typical month	Total to date (mm)	% of typical year to date	% of typical full year	
North Egmont at Visitors Centre	17	713.0	112.0	2257.0	99.2	33.6	1991
Dawson Falls	16	555.0	120.1	2196.5	139.5	48.8	1933
Kahui Hut	20	563.5	125.2	1665.0	101.3	34.5	2006
Mangorei Upper at Forest Hill	17	450.5	118.6	1512.0	125.5	42.3	2017
Waiwhakaiho at Hillsborough	15	204.0	112.8	757.0	112.3	42.9	2012
Brooklands Zoo at New Plymouth	13	183.0	117.4	634.4	112.1	41.1	2012
Mangati at SH3	13	170.6	116.9	631.6	119.5	45.6	2013
Motunui M39 at Weston W3	13	147.0	88.3	543.6	94.6	34.5	1998
Waiwhakaiho at Egmont Village	14	281.5	129.4	997.5	119.8	42.5	1991

Hydro_Sites	Monthly			Year to Date			Records Began
	# days > 0.5 mm	Total Rainfall (mm)	% of typical month	Total to date (mm)	% of typical year to date	% of typical full year	
Manganui at Everett Park	13	196.0	98.7	681.5	90.6	33.0	1987
Inglewood at Oxidation Ponds	14	235.0	106.8	822.5	105.2	35.7	2000
Patea at Stratford	14	177.0	85.1	764.5	113.9	39.6	1999
Mangaehu at Bridge	16	177.0	117.5	675.0	123.7	43.7	1999
Kotare at OSullivans	16	207.5	97.6	562.5	75.6	26.2	1998
Uruti at Kaka Rd	14	219.5	111.7	673.0	88.2	30.9	1991
Pohokura Saddle	17	175.5	100.0	546.5	81.3	28.1	1991
Stony at Mangatete Bridge	16	214.5	112.9	892.0	129.1	47.5	2004
Kapoiaiaia at Lighthouse	11	136.0	118.3	971.6	213.7	80.1	1930
Taungatara at Eltham Rd	13	200.0	127.8	840.5	162.8	56.8	2005
Kaupokonui at Glenn Rd	14	144.0	134.0	631.0	160.6	55.9	1998
Tawhiti at Duffys	12	130.5	128.8	599.5	152.8	55.1	1993
Patea at Bore 3	12	134.2	113.0	607.0	148.5	53.1	2005
Omaru at Charlies	20	240.5	143.3	655.0	109.3	38.0	2005
Omahine at Moana Trig	18	230.0	136.5	711.5	118.9	41.9	2006
Waitotara at Rimunui Station	12	169.5	133.0	566.5	122.7	42.3	1993
Waitotara at Ngutuwera	16	131.5	109.1	576.5	130.3	45.5	1998
Waitotara at Hawken Rd	11	183.2	179.4	560.6	139.7	54.1	2016

2. River Flow at 9 sites in Taranaki

Mean river flows for May were way up from April, but are generally a little below the May average at around 88% of normal. The minimum flows were mostly above the mean minimum for May (116%), except the Kapoiaia at Cape Egmont. Maximum flows were nearly all low (on average 58.6% of typical values). The Waitara River at Bertrand Road is the exception achieving a new record for May at nearly 1000 cumecs at around 9 am on 18 May.

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
	May 2022	May all previous years	May 2022	May all previous years	May 2022	May all previous years		
Waitara at Bertrand Rd	939.96	869.00	6.38	6.23	63.78	69.88	42	1980
Manganui at Everett Park	183.71	793.31	3.69	3.01	15.56	24.71	30	1992
Waiwhakaiho at SH3	196.87	553.69	1.92	1.79	8.89	9.82	42	1980
Waiongana at SH3a	43.60	125.68	0.50	0.39	3.00	3.54	42	1980
Kapoiaia at Lighthouse	35.80	44.53	0.11	0.25	0.98	1.53	36	1986
Waingongoro at Eltham Rd	7.64	71.83	0.47	0.32	1.46	3.51	47	1975
Punehu at Pihama*	27.50	38.45	0.33	0.26	1.71	1.63	52	1970
Tawhiti at Duffy's Farm	2.18	13.28	0.27	0.14	0.65	0.74	37	1985
Whenuakura at Nicholson Rd	155.23	205.67	2.64	1.66	15.77	12.06	39	1983

3. River Temperature at 8 sites throughout the region

Mean river water temperatures were an average of 0.52°C above long-term May values. Nighttime low water temperatures were on average 2.2°C above historic lows (excluding Kapoiaia at 6.5°C), this fits a general trend to warmer nighttime temperatures throughout the region. Peak temperatures were all below historic highs (as in April).

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)								
River and Site	Maximum		Minimum		Mean		Years of record	Records Began
	May 2022	May all previous years	May 2022	May all previous years	May 2022	May all previous years		
Kapoiaia	17.38	18.50	9.31	2.80	13.63	12.54	23	1999
Kapuni	15.81	18.80	8.00	4.70	12.30	11.37	23	1999
Mangaoraka	16.46	17.18	10.11	7.08	13.43	12.86	18	2004
Patea (Skinner)	14.86	16.19	7.46	5.58	11.47	11.37	18	2004
Timaru	15.11	16.25	8.92	7.09	12.58	12.07	9	2013
Waingongoro (Eltham)	14.29	16.71	7.41	5.25	11.41	11.15	18	2000
Waitara	15.31	16.30	8.91	7.36	12.67	12.29	36	1981
Waiwhakaiho	14.53	15.50	7.49	5.72	11.24	10.89	32	1981

4. Air Temperature at 17 sites throughout the region

The average air temperature for the region, excluding Te Maunga, was 13.35°C, which is 0.85°C higher than the long term May average. Three sites recorded new maximum May air temperatures. Similarly to river temperatures, minimum air temperatures for May were on average 2.57°C above previously recorded lows.

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)								
Site	Maximum		Minimum		Mean		Years of record	Records Began
	May 2022	May all previous years	May 2022	May all previous years	May 2022	May all previous years		
Dawson Falls	15.79	20.00	5.21	-0.73	10.16	7.80	7	2015
Brooklands (NP)	22.48	22.70	4.84	1.60	14.09	13.25	10	2012
Hillsborough	20.87	20.24	5.73	2.43	13.94	13.07	10	2012
Inglewood	21.89	22.58	-0.15	-1.07	11.49	11.50	10	2012
Cape Egmont	19.99	20.19	6.06	2.49	15.24	13.94	10	2012
Kaupokonui (Manaia)	21.97	23.40	2.87	0.43	13.81	13.10	7	2015
Mangati (Bell Block)	20.63	21.90	4.19	-0.08	13.98	13.36	9	2013
Mangorei (Bushline)	18.36	18.06	3.48	1.11	12.15	10.89	5	2017
Motunui	19.90	21.21	3.57	1.10	13.62	12.63	5	2017
Ngutuwera	20.41	23.50	2.72	0.93	13.26	12.34	4	2018
North Egmont	16.94	17.59	1.56	-1.15	8.81	7.89	7	2015
Patea	20.01	23.16	3.06	1.16	13.71	13.15	9	2013
Mangatete Rd (Okato)	19.71	20.90	4.76	2.87	13.50	13.09	6	2016
Te Kiri	19.81	21.03	3.87	1.80	13.33	12.56	7	2015
Whareroa	21.90	22.38	-1.64	-3.12	12.52	12.09	9	2013
Uruti (Okoki)	20.60	18.97	4.03	1.98	12.45	11.34	4	2018
Waitotara (Coast)	21.55	22.28	2.29	0.95	13.42	13.07	6	2016

5. Soil Moisture at 11 sites throughout the region

Mean soil moistures for May were on average 1.49% below long-term values. Minimum soil moisture was well above previous lows, and the maximum, well below previous highs. Soil moisture patterns were consistent with April, although the range of values at each site (max-min) was on average greater. Pohokura Saddle and Okoki at Kaka Rd show the greatest monthly soil moisture range.

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 (%)								
Site	Maximum		Minimum		Mean		Years of record	Records Began
	May 2022	May all previous years	May 2022	May all previous years	May 2022	May all previous years		
Hillsborough	33.30	37.48	24.89	21.25	27.78	26.69	10	2012
Kaka Rd (Okoki)	45.76	58.50	31.76	15.70	36.04	39.60	18	2004
Kapoiaia (Cape Egmont)	29.44	47.70	25.23	14.70	26.22	26.87	15	2005
Kaupokonui (Manaia)	37.26	49.75	30.25	16.27	33.57	29.08	17	2005
Kotare (Tongaporutu)	52.67	59.89	28.68	31.00	34.93	39.91	10	2012
Mangatete Rd (Okato)	24.84	35.81	12.32	7.94	15.83	16.39	6	2016
Motunui	30.82	42.40	21.23	15.70	25.35	29.11	14	2008
Patea	29.95	47.20	24.12	15.37	26.42	27.74	16	2006
Pohokura Saddle	57.82	59.69	36.27	26.30	43.03	39.94	16	2006
Rimunui (Waitotara Valley)	35.07	58.16	24.65	14.28	27.87	30.00	16	2006
Te Kiri	38.68	59.70	25.05	21.60	28.97	37.07	14	2008

6: Soil Temperature at 11 sites throughout the region

Like April, May soil temperatures were generally 1.1°C above the long-term average. Nighttime minimum soil temperatures were on average 3.3°C above recorded minima, but maximum May temperatures were on average 0.61°C below long-term maximum May values.

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)								
Site	Maximum		Minimum		Mean		Years of record	Records Began
	May 2022	May all previous years	May 2022	May all previous years	May 2022	May all previous years		
Hillsborough	16.82	17.27	11.99	9.91	14.53	13.67	10	2012
Kaka Rd (Okoki)	16.18	16.49	12.29	6.10	14.52	12.70	18	2004
Kapoiaia (Cape Egmont)	18.48	18.01	11.30	9.10	15.67	13.85	17	2005
Kaupokonui (Manaia)	16.10	17.60	11.30	8.40	14.14	13.06	17	2005
Kotare (Tongaporutu)	16.50	17.13	10.58	5.28	13.54	12.41	10	2012
Mangatete Rd (Okato)	16.70	17.30	8.20	7.90	13.39	13.16	5	2016
Motunui	17.14	16.85	11.83	8.40	14.56	13.08	14	2008
Patea	16.64	17.42	10.30	5.70	13.90	12.79	16	2006
Pohokura Saddle	15.58	16.51	10.14	7.70	13.19	12.42	16	2006
Rimunui (Waitotara Valley)	16.39	18.32	10.37	6.70	13.84	13.10	16	2006
Te Kiri	16.60	16.90	9.90	6.70	13.81	12.66	14	2008