

TARANAKI REGIONAL COUNCIL MONTHLY RAINFALL AND RIVER REPORT FOR February 2022

Provisional Data Only

Note: some sites record a number of parameters

Table 1: Rainfall at 27 sites throughout the region

Station	Sub-region	Monthly			Year to Date			Records Began
		Number of rain days (>0.5mm)	Total Monthly Rainfall (mm)	% of Monthly Normal (%)	Total to date (mm)	% of Normal for year to date	% of average full calendar year	
Nth Egmont	Ntnl Park (North)	15	869.5	234	937.5	122	14	Nov 1990
Dawson Falls	Ntnl Park (South)	16	895.0	273	946.5	145	16	Feb 1933
Kahui Hut	Ntnl Park (West)	12	517.0	221	586.0	109	11	Nov 2005
Mangorei Upper	Near bushline	11	750.5	n/a	791.0	n/a	n/a	Feb 2017
Hillsborough		10	318.0	324	328.5	169	19	Feb 2012
Brooklands	New Plymouth	10	300.4	323	310.6	177	19	Jan 1872
Mangati	Bell Block	10	277.2	331	290.2	170	20	Oct 2012
Weston's Farm	Motunui	11	274.8	282	283.0	153	18	Feb 1998
Waiwhakaiho	Egmont Village	11	420.5	275	462.0	157	20	Aug 1990
Manganui	Everett Park	11	307.5	252	330.5	133	16	Jan 1987
Oxi' Ponds	Inglewood	11	366.0	254	386.5	142	17	May 1999
TRC	Stratford	9	423.0	388	436.5	205	22	Jul 1998
Mangaehu	Toko (Huinga)	8	359.0	364	377.0	208	24	Jul 1998
Kotare	Tongaporutu	8	213.0	178	232.5	89	11	Jan 1998
Kaka Rd	Okoki	10	258.0	189	278.5	100	13	Aug 1990
Pohokura Saddle	Pohokura	9	239.5	202	258.0	110	13	Aug 1990
Stony	Mangatete Rd	9	405.5	298	431.5	172	22	Dec 2003
Kapoaiaia	Cape Egmont	10	628.6	702	646.6	348	47	Jan 1930
Taungatara	Te Kiri	9	428.5	666	450.5	295	29	Dec 2004
Kaupokonui	Manaia	8	327.5	578	339	276	30	Sep 1997
Duffy's Farm	Whareroa	7	344.5	586	355.0	293	33	Feb 1993
Bore 3	Patea	9	335.0	580	343.8	270	33	Feb 1994
Omaru	Charlie's Clearing	9	242.0	292	262.0	135	15	Apr 2005
Omahine	Moana Trig	10	316.0	351	336.5	170	19	Mar 2006
Rimunui	Waitotara Valley	7	265.5	350	279.5	176	21	May 1993
Ngutuwera	Waitotara	8	261.0	379	282.0	185	22	Apr 1998
Waitotara	Coast	8	271.8	330	281.4	189	24	Sep 2015

Table 2: River Flow at 9 sites throughout the region

River and Site	Recorded Flows (m3/sec)						Records Began
	Maximum		Minimum		Mean		
	February 2022	February all previous years	February 2022	February all previous years	February 2022	February all previous years	
Waitara at Bertrand Rd	864.135	1467.500	5.608	4.400	81.787	31.328	Feb 1980
Manganui at Everett Park	615.898	1054.374	3.203	2.590	39.234	11.923	Jun 1991
Waiwhakaiho at SH3	357.920	390.671	1.747	1.653	14.849	5.353	Feb 1980
Waiongana at SH3a	95.077	161.606	0.350	0.270	4.771	1.645	Apr 1980
Kapoaiaia at Lighthouse	61.418	36.284	0.271	0.183	3.383	0.675	Feb 1986
Waiongongo at Eltham Rd	60.773	132.986	0.571	0.223	5.387	1.324	Dec 1974
Punehu at Pihama*	55.347	73.765	0.231	0.178	2.943	0.602	Jan 1970
Tawhiti at Duffy's Farm	16.135	6.919	0.583	0.060	3.078	0.346	May 1985
Whenuakura at Nicholson Rd	260.796	359.334	2.117	1.465	26.253	5.738	Mar 1983

Note: * = NIWA station

Table 3: River Temperature at 9 sites throughout the region

River	Monthly Temperatures (°C)						Records Began
	Maximum		Minimum		Mean		
	February 2022	February all previous years	February 2022	February all previous years	February 2022	February all previous years	
Patea (Skinner Rd)	21.35	24.00	13.69	12.00	17.09	17.56	Dec 2003
Waiongongo (Eltham)	22.08	23.20	12.90	11.95	16.74	17.47	Jan 2000
Kapuni	25.06	28.00	12.63	10.88	17.45	18.59	Apr 1999
Kaupokonui (Manaia)	26.56	27.94	13.89	12.18	18.74	19.62	Sep 1978
Kapoaiaia	24.86	29.08	14.32	12.37	19.36	19.70	Jun 1998
Timaru	22.69	23.49	13.78	13.02	17.58	17.80	Mar 2013
Waitara	24.93	27.10	16.49	14.10	19.85	20.62	May 1981
Mangaoraka	23.64	27.20	14.45	12.81	18.39	19.01	Dec 2003
Waiwhakaiho	19.98	23.30	12.11	8.20	16.51	16.50	Jul 1980

Table 4: Air Temperature at 17 sites throughout the region

Site	Monthly Air Temperatures (°C)						Records Began
	Maximum		Minimum		Mean		
	February 2022	February all previous years	February 2022	February all previous years	February 2022	February all previous years	
North Egmont	21.99	26.61	6.10	4.00	14.28	14.06	Jul 2011
Dawson Falls	24.89	25.65	4.92	4.06	14.07	14.04	May 2015
Mangorei (Bushline)	25.09	24.77	8.49	7.03	17.60	16.58	Feb 2017
Brooklands (NP)	30.34	31.06	10.92	8.30	20.02	18.91	Jan 2012
Motunui	27.22	26.25	10.12	7.48	19.22	18.08	Aug 2016
Mangati (Bell Block)	28.72	29.66	10.46	6.10	19.60	18.49	Oct 2012
Hillsborough	28.56	28.00	10.87	8.07	19.38	18.24	Feb 2012
Inglewood	29.93	31.46	7.96	5.98	17.79	17.71	Jul 2011
Stratford	28.33	30.58	9.19	6.87	18.45	17.23	Sep 2011
Mangatete Rd (Okato)	27.75	28.52	9.18	7.41	18.82	18.02	Dec 2015
Cape Egmont	27.04	26.86	11.68	8.52	19.28	18.37	Feb 2012
Te Kiri	26.01	26.59	9.56	5.59	17.82	17.72	Mar 2015
Kaupokonui (Manaia)	29.79	28.40	8.72	4.92	18.58	18.09	Oct 2014
Patea	29.17	29.98	9.36	6.77	18.46	18.05	Sep 2011
Whareroa	28.44	27.60	3.68	1.44	18.06	17.41	Mar 2013
Ngutuwera	28.98	28.47	7.15	6.06	18.19	17.78	Dec 2017
Waitotara (Coast)	30.96	29.14	7.15	6.45	18.96	18.80	Sep 2015

Table 5: Soil Moisture at 11 sites throughout the region

Site	Soil Moisture Extremes (%)						Records Began
	Maximum		Minimum		Mean		
	February 2022	February all previous years	February 2022	February all previous years	February 2022	February all previous years	
Kotare (Tongaporutu)	48.66	52.43	18.67	16.90	32.47	30.24	Jan 2012
Kaka Rd (Okoki)	40.51	55.40	12.91	13.07	30.88	31.79	Dec 2003
Motunui	31.35	46.90	13.17	10.64	25.89	21.41	May 2008
Hillsborough	31.21	34.23	13.12	10.45	24.34	18.47	Mar 2012
Pohokura Saddle	44.65	52.12	22.45	13.10	32.88	29.27	Oct 2005
Kapoaiaia (Cape Egmont)	56.16	49.70	13.86	4.30	27.27	16.03	Oct 2004
Mangatete Rd (Okato)	21.10	32.09	6.07	3.18	12.57	9.43	Dec 2015
Te Kiri	60.23	54.50	8.17	7.70	26.06	22.65	Nov 2007
Kaupokonui (Manaia)	40.03	34.00	11.37	4.60	29.25	16.94	Oct 2004
Patea	37.50	43.90	15.70	8.83	26.05	20.20	Apr 2006
Rimunui (Waitotara Valley)	31.75	52.95	16.20	9.70	24.20	22.72	Nov 2005

Table 6: Soil Temperature at 11 sites throughout the region

Site	Soil Temperature Extremes (%)						Records Began
	Maximum		Minimum		Mean		
	February 2022	February all previous years	February 2022	February all previous years	February 2022	February all previous years	
Kotare (Tongaporutu)	23.65	24.59	19.69	14.21	21.55	19.47	Jan 2012
Kaka Rd (Okoki)	22.57	24.70	20.39	14.20	21.29	19.82	Dec 2003
Motunui	23.72	22.71	18.72	16.12	21.20	19.24	May 2008
Hillsborough	23.57	26.13	18.61	16.54	20.94	20.19	Mar 2012
Pohokura Saddle	22.40	24.29	18.28	15.50	20.44	19.25	Oct 2005
Kapoaiaia (Cape Egmont)	25.48	28.34	17.78	17.03	21.69	21.13	Oct 2004
Mangatete Rd (Okato)	25.80	26.80	17.40	15.90	21.33	21.27	Dec 2015
Te Kiri	24.10	25.15	16.20	14.60	19.70	19.33	Nov 2007
Kaupokonui (Manaia)	21.90	27.60	17.90	15.40	19.66	20.32	Oct 2004
Patea	28.20	29.80	16.68	14.70	20.89	20.72	Apr 2006
Rimunui (Waitotara Valley)	27.47	28.51	20.04	17.59	23.37	22.89	Nov 2005

General Comments:

Rainfall for February was extremely high with sites receiving between 178% and 702% of normal, with an average of 354%. This rainfall really only occurred on a handful of days, that being the 5th – 7th February and then a week later from the 11th to 13th February. The rainfall site at Cape Egmont recorded 628.6 mm for the month, which is the highest February rainfall recorded for the site since records began in 1930. In just 24 hours, 413.2mm of rain fell on the 5th and 6th of February, with the previous 24 hour maximum rainfall being 139.0 mm recorded in October 1998. Rainfall intensities were high for this event, with more than 44 mm of rain in a hour being recorded in two separate occasions at the site. Patea, Hawera, Manaia and Te Kiri also recorded extreme rainfall during February with rainfall ranging between 578% and 666% of normal. Te Maunga recorded between 221% and 273% of normal rainfall, with North Egmont recording its second highest February rainfall on record with 869.5mm and Dawson falls recording its third highest with 895.0 mm. Twelve sites recorded new maximum February rainfalls, these were: Kahui Hut, Mangorei Upper, Hillsborough, Brooklands, Te Kiri, Manaia, Hawera, Patea, Waitotara at Coast, Moana Trig, Omaru at Charlies and Cape Egmont.

Year to date rainfall is now ranging between 89% and 348% of normal, with an average of 181%. Kotare (near Tongaporutu), has recorded just 89% of normal with 232.5 mm, while Cape Egmont has recorded 348% with 646.6mm to date. With this February rainfall Cape Egmont has already received 47% of its normal annual rainfall to date.

Due to the higher than normal rainfall all river flows were above normal for the month by between 261% and 890%. The Kapoiaia and Tawhiti Streams recorded new February maximum flows, with 61,484 L/s (previous 36,284 L/s) and 16,135 L/s (previous 6,919 L/s) respectively.

Water temperatures for the month were below normal for all sites by between 0.22°C and 1.14°C, except the Waiwhakairo River at Egmont Village that recorded its normal mean water temperature of 16.50°C.

Air temperatures were above normal throughout the region, with a mean air temperature, excluding Te Maunga, of 18.76°C, which was 0.70°C higher than the long term average. Eight sites recorded new February maximum air temperatures and they were: Mangorei Bushline, Motunui, Hillsborough, Cape Egmont, Manaia, Whareroa, Ngutuwera and Waitotara Coast. Waitotara Coast also recorded the maximum air temperature for the month with 30.96°C.

Soil moisture for the month were above normal by between 1.48% and 12.31%, for all sites except Okoki, which had a mean soil moisture 0.91% lower than its February long term average. Okoki also recorded a new minimum soil moisture with 12.91%. Three sites recorded new maximum soil moisture for the month, these were, Cape Egmont, Te Kiri and Manaia, this was due to the significant rainfall that fell in these areas.

Soil temperature was generally above normal for all sites by between 0.06°C and 2.08°C, except for Manaia, which had a mean soil temperature 0.66°C lower than the long term February mean. Motunui recorded a new maximum soil temperature with 23.72°C, which was 1.01°C cooler than the previous February maximum.

SUMMER RAINFALL:

Summer, consisting of the months December, January and February, rainfall ranged between 100% and 324% of normal, with an average of 199%, this was largely due to December 2021 and February 2022 recording well above normal rainfall, while January recorded well below normal. Cape Egmont recorded 324% of normal with 946.2mm, which is the highest summer rainfall recorded since records began in 1930. The previous Summer rainfall maximum was 623.5mm record in 1939. Kotare (Tongaporutu) recorded normal rainfall, with 100% of normal with 455.5mm, while Te Maunga recorded between 155% and 158% of normal.

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