

## TARANAKI REGIONAL COUNCIL MONTHLY RAINFALL AND RIVER REPORT FOR July 2021

*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)	19	874.5	128	3894.0	103	55	Nov 1990
Dawson Falls	Ntnl Park (South)	20	1245.5	202	4130.0	123	70	Feb 1933
Kahui Hut	Ntnl Park (West)	21	648.0	125	3079.5	105	59	Nov 2005
Mangorei Upper	Near bushline	19	376.0	-	2280.5	-	-	Feb 2017
Hillsborough		14	142.0	74	1063.5	101	61	Feb 2012
Brooklands	New Plymouth	16	121.2	72	921.0	95	57	Jan 1872
Mangati	Bell Block	15	115.6	81	910.2	102	61	Oct 2012
Weston's Farm	Motunui	14	118.8	75	901.8	98	57	Feb 1998
Waiwhakaiho	Egmont Village	16	239.5	103	1471.5	112	62	Aug 1990
Manganui	Everett Park	13	165.5	82	1187.0	104	58	Jan 1987
Oxi' Ponds	Inglewood	15	205.0	89	1264.5	99	54	May 1999
TRC	Stratford	14	300.0	149	1210.0	110	62	Jul 1998
Mangaehu	Toko (Huinga)	14	173.0	117	904.0	104	58	Jul 1998
Kotare	Tongaporutu	13	166.5	80	1059.0	93	49	Jan 1998
Kaka Rd	Okoki	11	181.0	89	1051.0	89	48	Aug 1990
Pohokura Saddle	Pohokura	10	216.5	115	120.5	96	52	Aug 1990
Stony	Mangatete Rd	19	198.0	103	1213.5	112	63	Dec 2003
Kapoaiaia	Cape Egmont	13	158.8	106	932.4	114	67	Jan 1930
Taungatara	Te Kiri	17	189.5	115	923.5	107	60	Dec 2004
Kaupokonui	Manaia	16	103.0	85	628.5	95	54	Sep 1997
Duffy's Farm	Whareroa	12	103.5	97	622.0	102	57	Feb 1993
Bore 3	Patea	13	85.8	74	655.6	99	57	Feb 1994
Omaru	Charlie's Clearing	16	212.0	125	912.5	92	52	Apr 2005
Omahine	Moana Trig	15	145.5	83	809.0	82	46	Mar 2006
Rimunui	Waitotara Valley	12	131.5	101	593.5	79	44	May 1993
Ngutuwera	Waitotara	13	98.5	796	614.0	87	48	Apr 1998
Waitotara	Coast	14	88.2	75	628.0	91	54	Sep 2015

**Table 2: River Flow at 9 sites throughout the region**

River and Site	Recorded Flows (m3/sec)							Records Began
	Maximum		Minimum		Mean			
	July 2021	July all previous years	July 2021	July all previous years	July 2021	July all previous years	% of normal	
Waitara at Bertrand Rd	647.567	1314.780	20.632	8.625	86.034	80.426	107	Feb 1980
Manganui at Everett Park	554.469	853.387	6.526	3.954	32.160	25.437	126	Jun 1991
Waiwhakaiho at SH3	232.363	336.740	2.647	1.874	11.553	9.294	124	Feb 1980
Waiongana at SH3a	53.974	118.856	1.108	0.559	4.358	3.655	119	Apr 1980
Kapoaiaia at Lighthouse	31.446	38.408	0.943	0.304	2.844	1.507	189	Feb 1986
Waiongoro at Eltham Rd	147.245	139.977	1.891	0.701	9.033	4.461	202	Dec 1974
Punehu at Pihama*	44.307	48.837	0.763	0.384	2.324	1.797	129	Jan 1970
Tawhiti at Duffy's Farm	10.847	18.923	0.905	0.240	1.464	1.208	121	May 1985
Whenuakura at Nicholson Rd	128.302	323.383	3.813	2.442	13.656	15.420	89	Mar 1983

Note: \* = NIWA station

**Table 3: River Temperature at 10 sites throughout the region**

River	Monthly Temperatures (°C)						Records Began
	Maximum		Minimum		Mean		
	July 2021	July all previous years	July 2021	July all previous years	July 2021	July all previous years	
Patea (Skinner Rd)	12.50	12.30	6.94	4.70	9.98	9.39	Dec 2003
Waiongoro (Eltham)	12.03	12.16	6.64	4.80	9.92	9.39	Jan 2000
Kapuni	12.63	13.40	5.94	3.00	9.71	9.18	Apr 1999
Kaupokonui (Manaia)	12.42	13.95	5.86	2.70	9.45	9.04	Sep 1978
Kapoaiaia	13.38	14.80	6.96	4.00	10.71	9.85	Jun 1998
Timaru	14.14	12.83	6.70	6.06	10.69	10.05	Mar 2013
Waitara	11.83	13.50	6.80	4.00	9.90	9.18	May 1981
Mangaoraka	13.37	14.00	8.15	6.40	11.26	10.80	Dec 2003
Waiwhakaiho	11.09	13.10	5.59	3.30	8.72	8.41	Jul 1980
Waiongoro (Ohawe)	12.45	13.06	6.72	5.50	10.26	9.84	Dec 2003

**Table 4: Air Temperature at 17 sites throughout the region**

Site	Monthly Air Temperatures (°C)						Records Began
	Maximum		Minimum		Mean		
	July 2021	July all previous years	July 2021	July all previous years	July 2021	July all previous years	
North Egmont	12.59	13.88	-1.48	-2.86	5.15	4.77	Jul 2011
Dawson Falls	12.36	13.17	-1.20	-2.06	5.32	4.88	May 2015
Mangorei (Bushline)	14.06	15.69	1.55	-0.17	8.76	8.40	Feb 2017
Brooklands (NP)	19.61	20.10	1.63	0.40	10.82	10.56	Jan 2012
Motunui	18.47	18.34	0.91	0.49	10.33	10.53	Aug 2016
Mangati (Bell Block)	18.60	19.15	0.21	-1.16	10.82	10.64	Oct 2012
Hillsborough	16.56	18.02	1.55	1.05	9.98	10.53	Feb 2012
Inglewood	17.34	17.57	0.14	-2.77	10.31	8.54	Jul 2011
Stratford	17.11	20.71	0.60	-1.75	9.51	8.67	Sep 2011
Mangatete Rd (Okato)	19.92	20.10	1.83	2.29	10.19	10.40	Dec 2015
Cape Egmont	17.65	18.34	2.57	-0.13	11.84	11.35	Feb 2012
Te Kiri	17.22	17.32	1.45	0.35	9.91	9.84	Mar 2015
Kaupokonui (Manaia)	185.14	18.95	-0.60	-0.37	10.74	10.38	Oct 2014
Patea	17.51	20.02	1.96	-1.03	10.62	10.36	Sep 2011
Whareroa	17.36	19.15	-2.54	-2.85	9.63	9.47	Mar 2013
Ngutuwera	17.20	17.25	0.42	1.92	9.96	10.14	Dec 2017
Waitotara (Coast)	18.52	18.83	0.85	0.78	10.50	10.53	Sep 2015

**Table 5: Soil Moisture at 11 sites throughout the region**

Site	Soil Moisture Extremes (%)						Records Began
	Maximum		Minimum		Mean		
	July 2021	July all previous years	July 2021	July all previous years	July 2021	July all previous years	
Kotare (Tongaporutu)	58.27	59.90	41.79	35.80	45.00	43.39	Jan 2012
Kaka Rd (Okoki)	43.73	58.80	40.59	27.20	41.85	43.89	Dec 2003
Motunui	32.45	39.79	29.62	24.30	30.72	31.45	May 2008
Hillsborough	37.69	38.64	30.44	25.75	32.64	29.67	Mar 2012
Pohokura Saddle	52.25	58.80	44.16	289.50	47.46	44.31	Oct 2005
Kapoaiaia (Cape Egmont)	32.48	51.40	28.04	22.44	29.05	30.15	Oct 2004
Mangatete Rd (Okato)	32.27	39.86	18.53	12.82	21.53	19.43	Dec 2015
Te Kiri	45.20	59.80	29.38	27.79	32.24	41.53	Nov 2007
Kaupokonui (Manaia)	35.57	49.43	32.24	21.90	33.59	34.81	Oct 2004
Patea	33.51	49.60	29.51	20.88	30.70	31.34	Apr 2006
Rimunui (Waitotara Valley)	33.37	63.23	26.61	17.97	28.37	34.02	Nov 2005

**Table 6: Soil Temperature at 11 sites throughout the region**

Site	Soil Temperature Extremes (%)						Records Began
	Maximum		Minimum		Mean		
	July 2021	July all previous years	July 2021	July all previous years	July 2021	July all previous years	
Kotare (Tongaporutu)	10.97	12.29	6.97	3.75	9.30	8.86	Jan 2012
Kaka Rd (Okoki)	11.01	11.92	8.49	4.40	9.97	9.05	Dec 2003
Motunui	11.70	12.23	6.70	4.90	9.54	9.46	May 2008
Hillsborough	11.99	13.49	8.91	6.64	10.66	10.11	Mar 2012
Pohokura Saddle	10.60	12.20	6.39	5.40	8.93	8.74	Oct 2005
Kapoaiaia (Cape Egmont)	13.89	14.10	7.65	6.00	11.54	10.41	Oct 2004
Mangatete Rd (Okato)	11.70	15.22	6.60	6.60	9.48	9.79	Dec 2015
Te Kiri	13.10	13.60	7.10	4.70	10.18	9.42	Nov 2007
Kaupokonui (Manaia)	12.30	12.40	8.20	5.10	10.66	9.51	Oct 2004
Patea	13.07	12.50	6.94	2.60	10.34	9.51	Apr 2006
Rimunui (Waitotara Valley)	12.20	12.40	6.57	5.32	9.77	9.51	Nov 2005

**General Comments:**

Rainfall for July was mixed with totals ranging between 72% and 202% of normal, with an average of 101%. Of most significance was the sheer amount of rain that fell at Dawson Falls, amassing 1245.5 mm, this is equivalent to 202% of its normal July rainfall. On the 16<sup>th</sup> and 17<sup>th</sup> July, the site recorded 551.0 mm in just 24 hours, which is the highest 1 day rainfall on record, with records dating back to 1933.

Year to date rainfall is sitting between 79% and 123%, with an average of 100%. Dawson Falls has recorded 123% of normal to date with 4130.0 mm, while Waitotara Valley has recorded just 79% of normal to date with 593.5 mm.

Due to the high rainfall recorded at Dawson Falls, the Waingongoro River at Eltham recorded a new July maximum flow with 147,245 L/s. This was 7,268 L/s higher than the previous maximum. All sites recorded above mean flows for the month by between 107% and 202%, except for the Whenuakura that had a mean flow of 13,656 L/s, which was only 89% of the long term July average. Also interesting to note was the Waingongoro River had a mean flow of 9,033 L/s, which was more than 2x that of its historical July flow of 4,461 L/s.

Patea at Skinner Rd recorded a new maximum water temperature for July with 12.50°C, which was 0.20°C warmer than the previous maximum. Water temperatures were above normal for all sites by between 0.31°C and 0.86°C.

Motunui recorded a new July maximum air temperature with 18.47°C, while Okato (1.83°C), Manaia (-0.60°C) and Ngutuwaera (0.42°C) all recorded new minimum July temperatures. The average air temperature, excluding Te Maunga, for the month was 10.37°C, which was 0.26°C warmer than the long term July average. Okato recorded the maximum air temperature for the month with 19.92°C, while Whareroa recorded the coolest with -2.54°C.

Soil moistures for the month were mixed with four sites (Kotare, Hillsborough, Pohokura and Okato) recording above normal by between 1.61°C and 3.15°C, the remaining seven sites recorded below normal by between 0.64°C and 9.29°C.

Patea recorded a new maximum soil temperature for July with 13.07°C, with the previous high being 12.50°C. All sites recorded above normal for the month by between 0.08°C and 1.15°C except Okato, which had a mean soil temperature 0.31°C below the July norm.