

TARANAKI REGIONAL COUNCIL MONTHLY RAINFALL AND RIVER REPORT FOR October 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)	23	656.0	95	5228.5	101	74	Nov 1990
Dawson Falls	Ntnl Park (South)	23	781.0	141	5607.0	124	95	Feb 1933
Kahui Hut	Ntnl Park (West)	24	581.0	116	4164.0	105	79	Nov 2005
Mangorei Upper	Near bushline	22	270.0	n/a	2924.5	n/a	n/a	Feb 2017
Hillsborough		19	141.5	93	1355.5	97	77	Feb 2012
Brooklands	New Plymouth	19	132.8	105	1181.4	93	73	Jan 1872
Mangati	Bell Block	18	105.6	75	1148.8	96	77	Oct 2012
Weston's Farm	Motunui	16	133.2	98	1171.8	98	74	Feb 1998
Waiwhakaiho	Egmont Village	18	20.0	98	1899.0	109	80	Aug 1990
Manganui	Everett Park	18	173.5	95	1561.5	103	76	Jan 1987
Oxi' Ponds	Inglewood	20	190.0	85	1640.0	96	70	May 1999
TRC	Stratford	17	187.0	99	1646.0	111	84	Jul 1998
Mangaehu	Toko (Huinga)	17	137.5	95	1208.5	103	78	Jul 1998
Kotare	Tongaporutu	17	175.0	81	1418.0	92	66	Jan 1998
Kaka Rd	Okoki	16	190.5	94	1480.0	93	67	Aug 1990
Pohokura Saddle	Pohokura	20	202.5	107	1409.5	98	71	Aug 1990
Stony	Mangatete Rd	22	160.0	93	1575.5	107	81	Dec 2003
Kapoaiaia	Cape Egmont	17	109.0	96	1189.2	112	86	Jan 1930
Taungatara	Te Kiri	19	146.0	101	1261.0	109	82	Dec 2004
Kaupokonui	Manaia	16	116.0	114	873.5	101	76	Sep 1997
Duffy's Farm	Whareroa	14	94.5	101	847.5	106	78	Feb 1993
Bore 3	Patea	16	153.0	172	970.8	113	85	Feb 1994
Omaru	Charlie's Clearing	22	201.5	117	1331.5	100	76	Apr 2005
Omahine	Moana Trig	20	150.5	91	1129.5	85	65	Mar 2006
Rimunui	Waitotara Valley	16	135.0	106	891.5	89	66	May 1993
Ngutuwera	Waitotara	15	150.5	126	903.5	96	70	Apr 1998
Waitotara	Coast	15	153.0	151	908.2	102	79	Sep 2015

Table 2: River Flow at 9 sites throughout the region

River and Site	Recorded Flows (m ³ /sec)						Records Began
	Maximum		Minimum		Mean		
	September 2021	September all previous years	September 2021	September all previous years	September 2021	September all previous years	
Waitara at Bertrand Rd	344.339	980.952	20.835	8.927	62.979	68.520	Feb 1980
Manganui at Everett Park	246.678	708.052	6.961	4.076	20.699	22.442	Jun 1991
Waiwhakaiho at SH3	142.013	349.650	2.456	2.020	8.181	8.915	Feb 1980
Waiongana at SH3a	36.498	112.736	1.065	0.512	2.884	3.157	Apr 1980
Kapoaiaia at Lighthouse	15.867	39.765	0.660	0.283	1.863	1.343	Feb 1986
Waiongongo at Eltham Rd	29.316	107.738	2.365	0.785	4.107	3.529	Dec 1974
Punehu at Pihama*	14.293	45.567	0.523	0.340	1.537	1.536	Jan 1970
Tawhiti at Duffy's Farm	1.115	21.759	0.296	0.226	0.498	1.080	May 1985
Whenuakura at Nicholson Rd	76.188	249.884	4.825	2.125	12.266	12.315	Mar 1983

Note: * = NIWA station

Table 3: River Temperature at 10 sites throughout the region

River	Monthly Temperatures (°C)						Records Began
	Maximum		Minimum		Mean		
	September 2021	September all previous years	September 2021	September all previous years	September 2021	September all previous years	
Patea (Skinner Rd)	13.23	16.73	7.77	6.54	10.35	10.77	Dec 2003
Waiongongo (Eltham)	13.29	16.10	7.41	6.39	10.42	10.84	Jan 2000
Kapuni	14.13	19.20	6.94	5.80	10.77	11.23	Apr 1999
Kaupokonui (Manaia)	14.52	18.90	7.10	5.90	11.03	11.71	Sep 1978
Kapoaiaia	15.24	20.10	9.34	5.96	12.27	12.25	Jun 1998
Timaru	14.26	15.25	11.06	6.60	12.69	10.86	Mar 2013
Waitara	13.39	16.60	9.45	8.40	11.30	11.91	May 1981
Mangaoraka	14.70	17.50	9.53	7.86	12.14	12.28	Dec 2003
Waiwhakaiho	13.23	15.20	6.52	4.70	9.61	9.98	Jul 1980
Waiongongo (Ohawe)	13.91	17.19	8.83	8.00	11.46	12.00	Dec 2003

Table 4: Air Temperature at 17 sites throughout the region

Site	Monthly Air Temperatures (°C)						Records Began
	Maximum		Minimum		Mean		
	September 2021	September all previous years	September 2021	September all previous years	September 2021	September all previous years	
North Egmont	13.58	15.98	-0.21	-1.48	5.54	5.97	Jul 2011
Dawson Falls	14.71	18.07	0.07	-1.38	5.85	5.99	May 2015
Mangorei (Bushline)	14.99	19.16	3.09	0.17	9.38	9.12	Feb 2017
Brooklands (NP)	18.67	25.19	3.57	0.06	11.70	12.21	Jan 2012
Motunui	16.99	21.17	3.02	2.57	11.12	11.82	Aug 2016
Mangati (Bell Block)	16.97	19.45	3.00	2.46	11.46	12.46	Oct 2012
Hillsborough	15.58	21.28	2.93	0.63	10.52	11.73	Feb 2012
Inglewood	19.76	22.02	1.51	-1.02	11.11	10.42	Jul 2011
Stratford	19.52	21.16	2.27	-0.51	10.40	10.25	Sep 2011
Mangatete Rd (Okato)	16.49	20.60	3.60	4.24	10.62	11.68	Dec 2015
Cape Egmont	16.63	19.33	4.04	2.20	12.18	12.40	Feb 2012
Te Kiri	17.79	18.13	2.55	2.65	10.56	10.91	Mar 2015
Kaupokonui (Manaia)	17.33	20.69	1.93	1.78	11.35	11.76	Oct 2014
Patea	18.27	20.77	1.80	1.25	11.08	11.50	Sep 2011
Whareroa	17.46	20.43	-1.06	-2.28	10.52	11.29	Mar 2013
Ngutuwera	17.61	20.25	2.01	0.72	10.55	10.77	Dec 2017
Waitotara (Coast)	18.90	21.53	0.73	1.08	11.31	11.70	Sep 2015

Table 5: Soil Moisture at 11 sites throughout the region

Site	Soil Moisture Extremes (%)						Records Began
	Maximum		Minimum		Mean		
	September 2021	September all previous years	September 2021	September all previous years	September 2021	September all previous years	
Kotare (Tongaporutu)	57.50	59.87	41.39	32.30	46.33	43.11	Jan 2012
Kaka Rd (Okoki)	45.02	59.00	40.27	24.90	42.84	43.71	Dec 2003
Motunui	32.68	45.08	29.54	27.00	30.80	32.29	May 2008
Hillsborough	33.52	39.03	29.13	23.27	30.89	31.05	Mar 2012
Pohokura Saddle	53.35	59.00	43.40	32.50	48.40	45.00	Oct 2005
Kapoaiaia (Cape Egmont)	27.95	49.70	26.00	20.56	27.04	28.49	Oct 2004
Mangatete Rd (Okato)	30.85	33.93	16.68	13.56	20.85	20.49	Dec 2015
Te Kiri	41.09	59.80	28.51	28.40	31.59	41.15	Nov 2007
Kaupokonui (Manaia)	36.68	51.50	31.54	19.00	33.60	32.80	Oct 2004
Patea	38.52	48.10	29.28	19.79	30.86	29.95	Apr 2006
Rimunui (Waitotara Valley)	31.96	59.69	25.61	18.83	27.65	34.90	Nov 2005

Table 6: Soil Temperature at 11 sites throughout the region

Site	Soil Temperature Extremes (%)						Records Began
	Maximum		Minimum		Mean		
	September 2021	September all previous years	September 2021	September all previous years	September 2021	September all previous years	
Kotare (Tongaporutu)	13.11	17.75	9.82	5.75	11.19	11.11	Jan 2012
Kaka Rd (Okoki)	12.97	15.60	10.56	7.40	11.56	11.47	Dec 2003
Motunui	13.18	14.69	9.09	7.70	11.11	11.43	May 2008
Hillsborough	13.86	15.50	9.91	9.16	11.94	12.02	Mar 2012
Pohokura Saddle	12.43	14.43	8.40	7.90	10.38	11.03	Oct 2005
Kapoaiaia (Cape Egmont)	17.09	16.70	9.91	8.20	13.45	12.70	Oct 2004
Mangatete Rd (Okato)	14.60	16.00	8.90	8.40	11.61	11.93	Dec 2015
Te Kiri	14.40	14.16	8.20	5.40	11.32	11.28	Nov 2007
Kaupokonui (Manaia)	14.60	16.39	10.50	8.20	12.50	11.89	Oct 2004
Patea	15.49	17.90	7.86	6.60	11.98	12.04	Apr 2006
Rimunui (Waitotara Valley)	15.71	18.80	10.07	9.00	12.63	13.39	Nov 2005

General Comments:

Rainfall for September ranged between 75% and 172% of normal, with an average of 106%. Patea received 172% of its normal September rainfall with 153.0mm, while Bell Block received just 75% of normal with 105.6mm. Te Maunga recorded near to above normal rainfall with totals ranging between 95% and 141%.

Year to date rainfall ranged between 85% and 124% of normal, with an average of 101%. Dawson Falls has recorded 124% of normal rainfall to date with 5607.0mm, and has already received 95% of its normal annual rainfall. The rainfall station Omahine at Moana Trig has recorded just 85% of its normal rainfall to date with 1129.5mm.

River flows were mixed this month with the Kapoiaia, Waingongoro, Punehu and Whenuakura rivers recording near to above normal September flows. The Waitara, Manganui, Waiwhakaiho, and Waiongana rivers recorded below normal, with mean flows being 91% to 92% of normal, while the Tawhiti stream had a mean flow of just 498 L/s, which is only 46% of its normal September flow of 1,080 L/s.

Water temperatures were above normal by between 0.37°C and 0.68°C for all sites except the Kapoiaia and Timaru Stream. The Kapoiaia and Timaru streams had mean September temperatures of 12.27°C and 12.69°C respectively, which was 0.02°C and 1.83°C warmer than their long term averages.

The air temperature sites at Okato, Te Kiri and Waitotara Coast all recorded new minimum September temperatures on record, with 3.60°C, 2.55°C and 0.73°C respectively. These were 0.64°C, 0.10°C and 0.35°C cooler, respectively, than their previous September minimums. The mean air temperature, excluding Te Maunga, for September was 10.92°C, which was 0.41°C cooler than the long term September average. The maximum air temperature for September was recorded at Inglewood with 19.76°C, while the minimum was recorded at Whareroa with -1.06°C.

Due to the varied rainfall, soil moistures were also varied with Tongaporutu, Pohokura Saddle, Okato, Manaia and Patea recording above normal by between 0.36% and 3.40%, while Okoki, Motunui, Hillsborough, Cape Egmont, Te Kiri, and Waitotara Valley recorded below normal by between 0.87% and 9.26%.

Cape Egmont and Te Kiri recorded new maximum soil temperatures for September with 17.09°C and 14.40°C respectively. Tongaporutu, Okoki, Cape Egmont, Te Kiri and Manaia all recorded above normal soil temperatures by between 0.08°C and 0.75°C. The remaining sites, of Motunui, Hillsborough, Pohokura Saddle, Okato, Patea and Waitotara Valley recorded below normal by between 0.06°C and 0.76°C.