Doc. No: 2935274

TARANAKI REGIONAL COUNCIL MONTHLY RAINFALL AND RIVER REPORT FOR November 2021



Note: some sites record a number of parameters

Table 1:Rainfall at 27 sites throughout the region

		Monthly						
Station	Sub-region	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	Records Began
Nth Egmont	Ntnl Park (North)	14	250.0	50	6159.5	95	88	Nov 1990
Dawson Falls	Ntnl Park (South)	14	191.5	46	6401.0	116	108	Feb 1933
Kahui Hut	Ntnl Park (West)	15	306.0	73	4941.5	101	94	Nov 2005
Mangorei Upper	Near bushline	13	295.0	-	3642.5	-	-	Feb 2017
Hillsborough		9	137.0	128	1665.0	101	95	Feb 2012
Brooklands	New Plymouth	13	102.2	112	1449.6	98	90	Jan 1872
Mangati	Bell Block	11	97.0	99	1382.0	99	93	Oct 2012
Weston's Farm	Motunui	10	91.4	88	1410.6	97	89	Feb 1998
Waiwhakaiho	Egmont Village	11	189.0	99	2378.0	110	100	Aug 1990
Manganui	Everett Park	12	167.5	89	1801.0	92	84	Jan 1987
Oxi' Ponds	Inglewood	11	168.5	87	2035.5	96	87	May 1999
TRC	Stratford	8	95.0	78	1955.0	108	100	Jul 1998
Mangaehu	Toko (Huinga)	9	97.5	88	1431.5	100	92	Jul 1998
Kotare	Tongaporutu	13	167.0	89	1801.0	92	84	Jan 1998
Kaka Rd	Okoki	12	181.0	93	1890.0	94	86	Aug 1990
Pohokura Saddle	Pohokura	13	203.5	124	1808.5	100	92	Aug 1990
Stony	Mangatete Rd	13	186.0	139	1957.0	110	100	Dec 2003
Kapoaiaia	Cape Egmont	11	87.8	94	1391.2	109	101	Jan 1930
Taungatara	Te Kiri	7	95.5	87	1483.0	105	97	Dec 2004
Kaupokonui	Manaia	7	40.0	48	990.0	93	86	Sep 1997
Duffy's Farm	Whareroa	9	60.5	67	971.0	98	89	Feb 1993
Bore 3	Patea	10	91.8	134	1148.8	110	100	Feb 1994
Omaru	Charlie's Clearing	14	112.0	97	1631.0	101	93	Apr 2005
Omahine	Moana Trig	10	90.5	75	1363.5	84	78	Mar 2006
Rimunui	Waitotara Valley	9	66.5	59	1098.0	88	81	May 1993
Ngutuwera	Waitotara	10	56.5	56	1057.5	90	82	Apr 1998
Waitotara	Coast	9	68.6	69	1031.2	96	89	Sep 2015



Table 2:River Flow at 9 sites throughout the region

		Recorde					
	Maxi	Maximum Minimum			Me	Records	
River and Site	November 2021	November all previous years	November 2021	November all previous years	November 2021	November all previous years	Began
Waitara at Bertrand Rd	277.770	1251.999	15.526	5.891	50.902	52.867	Feb 1980
Manganui at Everett Park	80.309	798.475	5.755	3.111	14.519	17.775	Jun 1991
Waiwhakaiho at SH3	91.187	388.808	2.372	1.785	6.680	7.682	Feb 1980
Waiongana at SH3a	25.209	145.338	0.851	0.336	2.617	2.631	Apr 1980
Kapoaiaia at Lighthouse	9.255	35.829	0.406	0.259	1.068	1.082	Feb 1986
Waingongoro at Eltham Rd	2.338	112.332	1.091	0.498	1.611	2.419	Dec 1974
Punehu at Pihama*	2.229	53.217	0.328	0.280	0.485	1.051	Jan 1970
Tawhiti at Duffy's Farm	1.861	17.009	0.485	0.152	0.706	0.747	May 1985
Whenuakura at Nicholson Rd	24.415	251.761	2.872	1.979	4.708	9.414	Mar 1983

Note: * = NIWA station

Table 3:River Temperature at 9 sites throughout the region

	Monthly Temperatures (°C)							
River	Maximum		Min	mum	Me	ean	Records	
	November 2021	November all previous years	November 2021	November all previous years	November 2021	November all previous years	Began	
Patea (Skinner Rd)	19.11	22.10	10.31	8.57	15.07	14.14	Dec 2003	
Waingongoro (Eltham)	19.47	21.60	10.52	7.20	15.21	14.06	Jan 2000	
Kapuni	22.50	25.40	10.38	7.70	16.49	14.68	Apr 1999	
Kaupokonui (Manaia)	23.52	24.60	10.64	7.90	17.70	15.85	Sep 1978	
Kapoaiaia	21.17	25.70	11.78	8.01	17.30	16.20	Jun 1998	
Waitara	21.25	23.80	13.62	11.80	17.47	16.63	May 1981	
Mangaoraka	19.38	23.10	11.31	9.75	16.09	15.53	Dec 2003	
Waiwhakaiho	17.82	20.38	9.07	7.60	14.11	13.14	Jul 1980	
Waingongoro (Ohawe)	20.87	22.70	12.26	9.90	17.38	15.75	Dec 2003	

Table 4:Air Temperature at 17 sites throughout the region

Site	Monthly Air Temperatures (°C)							
	Maximum		Min	imum	м	Records		
	November 2021	November all previous years	November 2021	November all previous years	November 2021	November all previous years	Began	
North Egmont	18.55	24.77	2.74	-0.44	11.04	9.75	Jul 2011	
Dawson Falls	21.57	25.79	2.96	-0.46	10.96	10.19	May 2015	
Mangorei (Bushline)	21.10	24.21	6.29	3.08	14.19	12.93	Feb 2017	
Brooklands (NP)	25.63	27.68	7.50	3.96	16.74	15.25	Jan 2012	
Motunui	23.67	23.96	7.53	3.34	15.93	14.89	Aug 2016	
Mangati (Bell Block)	23.06	26.09	7.25	3.52	16.24	14.84	Oct 2012	
Hillsborough	22.98	24.96	7.39	5.01	15.96	14.38	Feb 2012	
Inglewood	25.65	26.46	4.55	1.59	14.77	13.74	Jul 2011	
Stratford	23.87	25.72	6.61	0.76	15.43	13.17	Sep 2011	
Mangatete Rd (Okato)	22.72	23.73	7.92	4.52	15.25	14.48	Dec 2015	
Cape Egmont	21.11	22.45	9.59	4.23	16.17	14.90	Feb 2012	
Te Kiri	21.26	22.62	7.93	2.64	15.00	14.01	Mar 2015	
Kaupokonui (Manaia)	23.61	24.18	7.53	0.37	16.12	14.62	Oct 2014	
Patea	22.65	24.22	8.97	0.82	15.69	14.42	Sep 2011	
Whareroa	22.89	23.57	4.09	-1.05	15.2	14.34	Mar 2013	
Ngutuwera	23.35	24.41	8.03	4.57	15.35	14.64	Dec 2017	
Waitotara (Coast)	24.22	25.86	9.27	0.69	16.30	15.11	Sep 2015	

Table 5:Soil Moisture at 10 sites throughout the region

	Maximum		Minimum		Mean		Records
Site	November 2021	November all previous years	November 2021	November all previous years	November 2021	November all previous years	Began
Kotare (Tongaporutu)	56.62	57.48	32.65	26.97	41.53	40.00	Jan 2012
Kaka Rd (Okoki)	45.20	59.40	36.16	17.80	40.45	39.82	Dec 2003
Hillsborough	31.35	36.56	23.92	17.66	26.54	27.94	Mar 2012
Pohokura Saddle	54.26	57.00	38.77	14.10	44.93	38.33	Oct 2005
Kapoaiaia (Cape Egmont)	24.39	47.60	20.57	10.10	22.46	23.93	Oct 2004
Mangatete Rd (Okato)	30.11	33.66	11.63	9.49	18.34	17.31	Dec 2015
Te Kiri	32.62	59.80	22.78	16.90	26.84	36.04	Nov 2007
Kaupokonui (Manaia)	32.10	44.41	29.29	11.81	30.91	27.08	Oct 2004
Patea	32.56	47.80	25.10	12.97	26.83	26.44	Apr 2006
Rimunui (Waitotara Valley)	30.15	59.10	22.79	13.42	24.63	29.24	Nov 2005

Table 6:Soil Temperature at 10 sites throughout the region

	Maximum		Minimum		Mean		Records
Site	November 2021	November all previous years	November 2021	November all previous years	November 2021	November all previous years	Began
Kotare (Tongaporutu)	19.26	23.38	14.81	10.51	17.74	15.07	Jan 2012
Kaka Rd (Okoki)	19.91	23.50	15.44	10.50	18.10	15.97	Dec 2003
Hillsborough	19.83	23.33	13.48	12.40	17.34	16.13	Mar 2012
Pohokura Saddle	18.88	20.00	12.90	10.40	16.63	14.96	Oct 2005
Kapoaiaia (Cape Egmont)	23.76	23.34	15.60	11.80	19.79	16.71	Oct 2004
Mangatete Rd (Okato)	19.80	23.60	13.30	12.30	17.49	17.00	Dec 2015
Te Kiri	20.90	20.40	12.90	10.10	17.19	15.24	Nov 2007
Kaupokonui (Manaia)	21.90	23.90	16.40	11.90	19.46	16.18	Oct 2004
Patea	26.52	27.60	15.69	10.00	20.86	17.03	Apr 2006
Rimunui (Waitotara Valley)	25.35	27.50	17.14	13.20	21.28	19.53	Nov 2005

General Comments:

Rainfall for November varied between 46% and 139% of normal, with an average of 88%. Dawson Falls recorded just 46% of normal with 191.5 mm for November, while the Mangatete Rd site (near Okato) recorded 139% of normal with 186.0 mm. Just six of the 27 sites recorded above normal rainfall for November, and these were: Hillsborough (128%), Brooklands (112%), Everett Park (100%), Pohokura Saddle (124%), Mangatete Rd – Okato (139%), and Patea (134%). Te Maunga recorded below normal rainfall with totals ranging between 46% and 73% of normal.

Year to date rainfall is sitting between 84% and 116%, with an average of 100%. Dawson Falls has recorded the most rainfall to date, with 6401.0mm, which is 116% of normal. Omahine at Moana Trig has recorded the least with 1363.5mm (88% of normal).

Due to the lower than normal rainfall, all river flows were below normal for the month, with mean flows being between 46% and 99% of normal. No new extremes were recorded.

Water temperatures for the month were above normal for all sites by between 0.56°C and 1.85°C. No new extremes were recorded.

The average air temperature, excluding Te Maunga, for November was 15.62°C, which was 1.24°C warmer than the long term November average. Inglewood recorded the maximum for the month with 25.65°C, while Whareroa recorded the minimum for the month with 4.09°C.

Soil moisture was mixed with Tongaporutu, Okoki, Pohokura Saddle, Okato, Manaia and Patea recording above normal by between 0.39% and 3.82%. The remaining four sites of Hillsborough, Cape Egmont, Te Kiri and Waitotara Valley recorded below normal by between 1.40% and 9.20%. Soil temperature for November was all above normal by between 0.49°C and 3.83°C. Cape Egmont and Te Kiri also recorded new maximum November soil temperatures with 23.76°C and 20.90°C respectively.

SPRING RAINFALL:

Spring rainfall, consisting of the months September, October and November, had totals ranging between 76% and 123% of normal, with an average of 97%. Ten sites recorded above normal for spring, and these were, Dawson Falls, Omaru at Charlies, Patea, Stony, Pohokura Saddle, Everett Park, Egmont Village, Bell Block, Brooklands Zoo and Hillsborough.