

TARANAKI REGIONAL COUNCIL MONTHLY RAINFALL AND RIVER REPORT FOR March 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) | 7 | 264.0 | 63 | 1201.5 | 101 | 17 | Nov 1990 |
| Dawson Falls | Ntnl Park (South) | 5 | 315.5 | 85 | 1262.0 | 123 | 21 | Feb 1933 |
| Kahui Hut | Ntnl Park (West) | 6 | 235.0 | 73 | 821.0 | 96 | 16 | Nov 2005 |
| Mangorei Upper | Near bushline | 5 | 158.5 | - | 949.5 | - | - | Feb 2017 |
| Hillsborough | | 6 | 140.0 | 99 | 468.5 | 139 | 27 | Feb 2012 |
| Brooklands | New Plymouth | 6 | 94.2 | 72 | 404.8 | 132 | 25 | Jan 1872 |
| Mangati | Bell Block | 6 | 109.0 | 105 | 399.2 | 145 | 27 | Oct 2012 |
| Weston's Farm | Motunui | 5 | 68.6 | 69 | 351.6 | 123 | 22 | Feb 1998 |
| Waiwhakaiho | Egmont Village | 6 | 158.5 | 101 | 620.5 | 139 | 26 | Aug 1990 |
| Manganui | Everett Park | 5 | 77.0 | 56 | 407.5 | 105 | 20 | Jan 1987 |
| Oxi' Ponds | Inglewood | 4 | 102.0 | 71 | 488.5 | 117 | 21 | May 1999 |
| TRC | Stratford | 6 | 96.5 | 77 | 533.0 | 158 | 27 | Jul 1998 |
| Mangaehu | Toko (Huinga) | 6 | 64.5 | 62 | 441.5 | 154 | 28 | Jul 1998 |
| Kotare | Tongaporutu | 5 | 60.0 | 52 | 292.5 | 78 | 14 | Jan 1998 |
| Kaka Rd | Okoki | 5 | 80.5 | 60 | 359.0 | 87 | 16 | Aug 1990 |
| Pohokura Saddle | Pohokura | 6 | 54.0 | 44 | 312.0 | 87 | 16 | Aug 1990 |
| Stony | Mangatete Rd | 5 | 112.5 | 93 | 544.0 | 146 | 28 | Dec 2003 |
| Kapoaiaia | Cape Egmont | 5 | 89.6 | 102 | 736.2 | 270 | 53 | Jan 1930 |
| Taungatara | Te Kiri | 5 | 99.0 | 111 | 549.5 | 227 | 36 | Dec 2004 |
| Kaupokonui | Manaia | 5 | 102.5 | 147 | 441.5 | 230 | 38 | Sep 1997 |
| Duffy's Farm | Whareroa | 5 | 52.0 | 71 | 407.0 | 210 | 37 | Feb 1993 |
| Bore 3 | Patea | 5 | 52.0 | 74 | 395.8 | 201 | 38 | Feb 1994 |
| Omaru | Charlie's Clearing | 6 | 99.5 | 85 | 361.5 | 116 | 21 | Apr 2005 |
| Omahine | Moana Trig | 6 | 87.5 | 80 | 424.0 | 138 | 24 | Mar 2006 |
| Rimunui | Waitotara Valley | 5 | 86.0 | 111 | 365.5 | 155 | 27 | May 1993 |
| Ngutuwera | Waitotara | 5 | 83.5 | 106 | 365.5 | 158 | 29 | Apr 1998 |
| Waitotara | Coast | 5 | 63.0 | 72 | 344.4 | 146 | 30 | Sep 2015 |

Table 2: River Flow at 9 sites throughout the region

| River and Site | Recorded Flows (m3/sec) | | | | | | Records Began |
|----------------------------|-------------------------|--------------------------|------------|--------------------------|------------|--------------------------|---------------|
| | Maximum | | Minimum | | Mean | | |
| | March 2022 | March all previous years | March 2022 | March all previous years | March 2022 | March all previous years | |
| Waitara at Bertrand Rd | 119.662 | 2050.637 | 6.779 | 4.558 | 14.736 | 31.481 | Feb 1980 |
| Manganui at Everett Park | 117.017 | 470.065 | 3.536 | 2.499 | 7.191 | 10.386 | Jun 1991 |
| Waiwhakaiho at SH3 | 115.217 | 517.160 | 2.046 | 1.479 | 3.594 | 5.753 | Feb 1980 |
| Waiongana at SH3a | 22.442 | 221.268 | 0.407 | 0.253 | 0.959 | 1.585 | Apr 1980 |
| Kapoaiaia at Lighthouse | 30.288 | 37.906 | 0.238 | 0.186 | 0.646 | 0.706 | Feb 1986 |
| Waingongoro at Eltham Rd | 19.698 | 73.061 | 0.598 | 0.183 | 1.302 | 1.441 | Dec 1974 |
| Punehu at Pihama* | 9.264 | 89.488 | 0.294 | 0.178 | 0.665 | 0.705 | Jan 1970 |
| Tawhiti at Duffy's Farm | 2.027 | 7.719 | 0.437 | 0.075 | 0.800 | 0.366 | May 1985 |
| Whenuakura at Nicholson Rd | 26.964 | 324.930 | 3.040 | 1.330 | 5.338 | 5.414 | Mar 1983 |

Note: * = NIWA station

Table 3: River Temperature at 9 sites throughout the region

| River | Monthly Temperatures (°C) | | | | | | Records Began |
|----------------------|---------------------------|--------------------------|------------|--------------------------|------------|--------------------------|---------------|
| | Maximum | | Minimum | | Mean | | |
| | March 2022 | March all previous years | March 2022 | March all previous years | March 2022 | March all previous years | |
| Patea (Skinner Rd) | 19.82 | 20.17 | 11.73 | 9.80 | 15.47 | 15.47 | Dec 2003 |
| Waingongoro (Eltham) | 19.48 | 22.20 | 11.32 | 10.47 | 15.20 | 15.90 | Jan 2000 |
| Kapuni | 20.75 | 25.20 | 11.31 | 9.60 | 15.99 | 16.70 | Apr 1999 |
| Kaupokonui (Manaia) | 22.84 | 26.17 | 12.07 | 10.18 | 16.98 | 17.46 | Sep 1978 |
| Kapoaiaia | 22.47 | 25.45 | 13.20 | 10.90 | 17.58 | 17.79 | Jun 1998 |
| Timaru | 19.49 | 21.12 | 12.97 | 11.12 | 16.20 | 16.00 | Mar 2013 |
| Waitara | 22.25 | 24.90 | 15.27 | 12.40 | 18.44 | 18.25 | May 1981 |
| Mangaoraka | 21.11 | 22.70 | 13.95 | 10.60 | 17.01 | 17.01 | Dec 2003 |
| Waiwhakaiho | 17.89 | 20.47 | 11.97 | 8.40 | 14.85 | 14.67 | Jul 1980 |

Table 4: Air Temperature at 18 sites throughout the region

| Site | Monthly Air Temperatures (°C) | | | | | | Records Began |
|----------------------|-------------------------------|--------------------------|------------|--------------------------|------------|--------------------------|---------------|
| | Maximum | | Minimum | | Mean | | |
| | March 2022 | March all previous years | March 2022 | March all previous years | March 2022 | March all previous years | |
| North Egmont | 20.97 | 22.37 | 5.36 | 4.16 | 12.95 | 12.43 | Jul 2011 |
| Dawson Falls | 19.67 | 22.38 | 4.03 | 3.53 | 12.03 | 12.38 | May 2015 |
| Mangorei (Bushline) | 23.57 | 23.89 | 8.56 | 8.01 | 16.56 | 15.33 | Feb 2017 |
| Brooklands (NP) | 27.13 | 30.90 | 11.04 | 5.50 | 18.56 | 17.70 | Jan 2012 |
| Motunui | 24.74 | 26.63 | 9.17 | 8.00 | 17.62 | 17.19 | Aug 2016 |
| Mangati (Bell Block) | 25.05 | 28.22 | 10.37 | 4.78 | 18.16 | 17.47 | Oct 2012 |
| Hillsborough | 25.94 | 27.93 | 11.22 | 5.84 | 18.00 | 17.24 | Feb 2012 |
| Inglewood | 27.71 | 28.73 | 5.70 | 3.96 | 16.14 | 16.29 | Jul 2011 |
| Stratford | 29.69 | 28.22 | 6.73 | 3.09 | 16.84 | 15.90 | Sep 2011 |
| Uruti (Okoki) | 26.61 | 26.02 | 8.02 | 7.93 | 16.59 | 15.77 | Mar 2018 |
| Mangatete Rd (Okato) | 25.40 | 27.26 | 8.07 | 6.49 | 17.09 | 17.12 | Dec 2015 |
| Cape Egmont | 23.97 | 26.44 | 6.68 | 6.36 | 17.82 | 17.48 | Feb 2012 |
| Te Kiri | 23.78 | 25.67 | 7.32 | 5.72 | 16.17 | 16.49 | Mar 2015 |
| Kaupokonui (Manaia) | 26.34 | 27.30 | 4.72 | 3.77 | 16.80 | 17.03 | Oct 2014 |
| Patea | 25.07 | 27.74 | 6.18 | 5.46 | 16.81 | 16.90 | Sep 2011 |
| Whareroa | 25.38 | 27.69 | 0.40 | 0.61 | 16.13 | 16.18 | Mar 2013 |
| Ngutuwera | 25.62 | 26.73 | 6.23 | 5.66 | 16.39 | 16.46 | Dec 2017 |
| Waitotara (Coast) | 27.67 | 28.69 | 6.41 | 5.11 | 17.17 | 17.14 | Sep 2015 |

Table 5: Soil Moisture at 11 sites throughout the region

| Site | Soil Moisture Extremes (%) | | | | | | Records Began |
|----------------------------|----------------------------|--------------------------|------------|--------------------------|------------|--------------------------|---------------|
| | Maximum | | Minimum | | Mean | | |
| | March 2022 | March all previous years | March 2022 | March all previous years | March 2022 | March all previous years | |
| Kotare (Tongaporutu) | 39.61 | 57.52 | 19.24 | 16.10 | 26.26 | 30.25 | Jan 2012 |
| Kaka Rd (Okoki) | 33.82 | 53.10 | 19.66 | 14.00 | 27.15 | 32.45 | Dec 2003 |
| Motunui | 26.70 | 39.60 | 18.02 | 11.19 | 22.36 | 22.42 | May 2008 |
| Hillsborough | 29.60 | 35.40 | 18.05 | 8.35 | 23.08 | 20.14 | Mar 2012 |
| Pohokura Saddle | 34.34 | 59.64 | 26.36 | 13.80 | 29.92 | 30.49 | Oct 2005 |
| Kapoaiaia (Cape Egmont) | 31.38 | 45.00 | 23.66 | 6.58 | 26.06 | 16.72 | Oct 2004 |
| Mangatete Rd (Okato) | 16.91 | 33.62 | 5.61 | 4.32 | 9.40 | 10.90 | Dec 2015 |
| Te Kiri | 35.84 | 55.00 | 13.27 | 10.10 | 21.10 | 23.44 | Nov 2007 |
| Kaupokonui (Manaia) | 34.48 | 39.30 | 25.12 | 4.10 | 28.67 | 17.40 | Oct 2004 |
| Patea | 26.57 | 41.27 | 23.81 | 9.88 | 24.85 | 20.81 | Apr 2006 |
| Rimunui (Waitotara Valley) | 30.15 | 59.71 | 20.19 | 7.82 | 23.20 | 23.19 | Nov 2005 |

Table 6: Soil Temperature at 11 sites throughout the region

| Site | Soil Temperature Extremes (%) | | | | | | Records Began |
|----------------------------|-------------------------------|--------------------------|------------|--------------------------|------------|--------------------------|---------------|
| | Maximum | | Minimum | | Mean | | |
| | March 2022 | March all previous years | March 2022 | March all previous years | March 2022 | March all previous years | |
| Kotare (Tongaporutu) | 21.11 | 22.92 | 16.82 | 13.12 | 19.27 | 17.77 | Jan 2012 |
| Kaka Rd (Okoki) | 20.81 | 22.40 | 17.38 | 12.10 | 19.33 | 18.02 | Dec 2003 |
| Motunui | 20.80 | 20.83 | 16.72 | 14.60 | 18.91 | 17.63 | May 2008 |
| Hillsborough | 20.47 | 22.26 | 16.52 | 15.11 | 18.50 | 18.55 | Mar 2012 |
| Pohokura Saddle | 21.25 | 21.27 | 15.98 | 13.10 | 18.88 | 17.55 | Oct 2005 |
| Kapoaiaia (Cape Egmont) | 25.24 | 24.46 | 18.47 | 13.90 | 21.33 | 19.07 | Oct 2004 |
| Mangatete Rd (Okato) | 21.80 | 23.10 | 15.60 | 13.90 | 19.23 | 19.08 | Dec 2015 |
| Te Kiri | 20.30 | 21.93 | 15.40 | 12.40 | 17.79 | 17.60 | Nov 2007 |
| Kaupokonui (Manaia) | 18.90 | 23.90 | 16.30 | 14.40 | 17.80 | 18.36 | Oct 2004 |
| Patea | 22.97 | 26.47 | 16.31 | 13.10 | 19.32 | 18.51 | Apr 2006 |
| Rimunui (Waitotara Valley) | 22.62 | 25.20 | 17.68 | 14.10 | 20.18 | 19.97 | Nov 2005 |

General Comments:

Rainfall for March was varied, ranging between 44% and 147% of normal, with an average of 82% of normal. Just five sites recorded above normal for the month, these were Bell Block (105%), Egmont Village (101%), Cape Egmont (102%), Te Kiri (111%) and Manaia (147%). There was no rainfall until 21st March for the majority of the region, with rainfall only recorded on between 4 and 7 days throughout the region. Te Maunga recorded between 63% and 85% of normal.

Year to date rainfall is sitting between 78% and 270% with an average of 145% of normal. There are only four sites that are sitting below normal to date, and these are Kahui Hut (96%), Tongaporutu (78%), Okoki (87%) and Pohokura Saddle (87%). Cape Egmont has recorded 270% of normal to date, and has received 53% of its average annual rainfall in the first three months of the year.

River flows were all well below normal to date, except for the Tawhiti Stream near Whareroa which had a mean flow of 800 L/s, which was 434 L/s higher than its March long term average.

Water temperatures were mixed for the month with three sites (Timaru, Waitara and Waiwhakahi Rivers) recording above normal by between 0.18°C and 0.20°C, while the Patea and Mangaoraka streams recorded normal conditions with 15.47°C and 17.01°C respectively. The remaining streams of Waingongoro, Kapuni, Kaupokonui and Kapoiaia streams recorded below normal by between 0.21°C and 0.71°C.

The average air temperature for the region, excluding Te Maunga, was 17.05°C, which was 0.33°C higher than the long term March average. Stratford and Uruti recorded new maximum March air temperatures for the month with 29.69°C and 26.61°C respectively, while Whareroa recorded a new minimum air temperature for March with 0.40°C.

Soil moisture was mixed for the month, with Hillsborough, Cape Egmont, Manaia and Patea recording above normal by between 2.94% and 11.27%. The remaining sites recorded below normal for the month by between 0.06% and 5.30%.

Soil temperatures were also mixed for the month, with Hillsborough and Te Kiri recording below normal by 0.05°C and 0.56°C respectively. The remaining sites recorded above normal by between 0.15°C and 2.26°C.