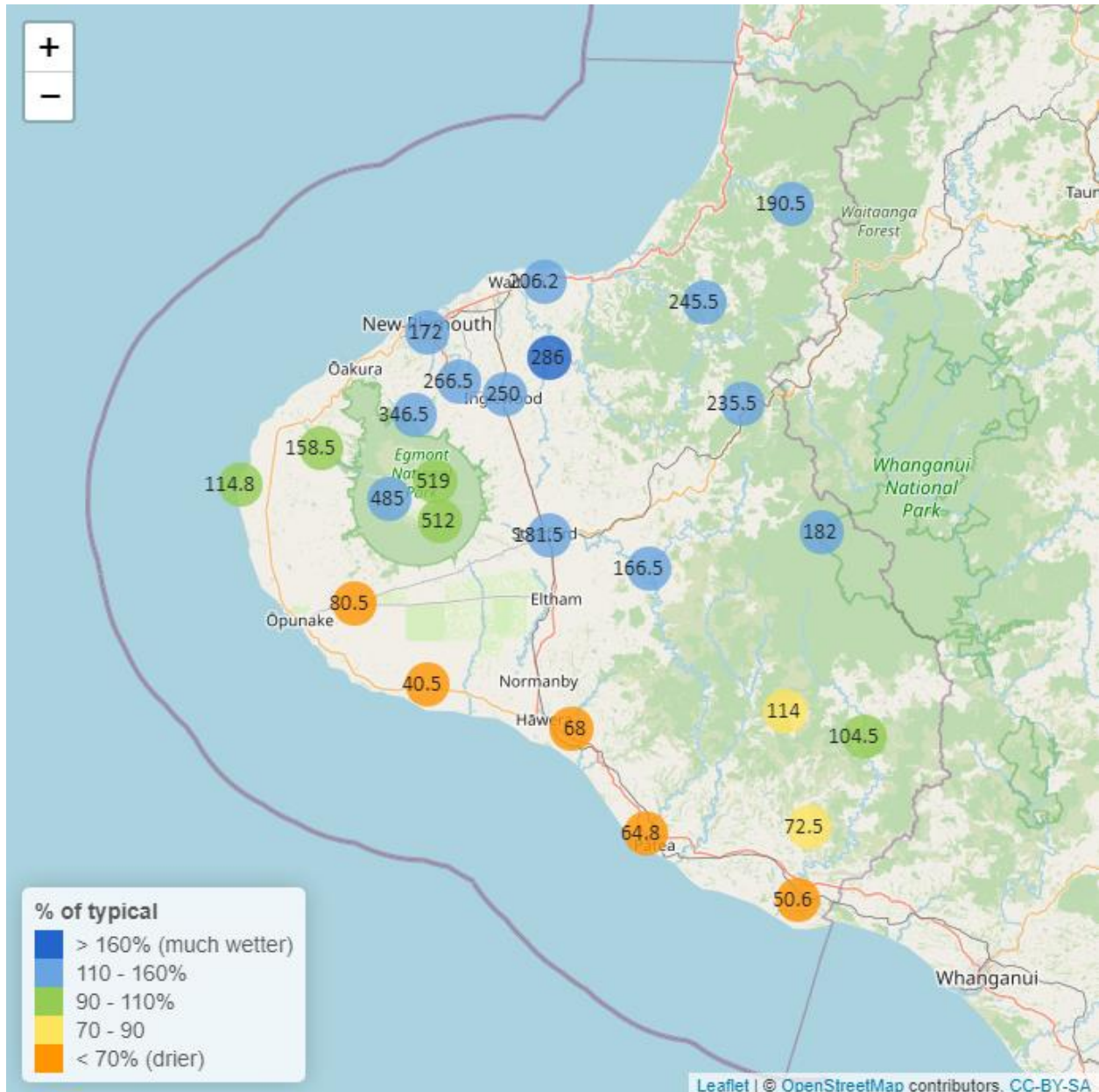


# Taranaki Regional Council Monthly Rainfall and Environmental Data Report for April 2024

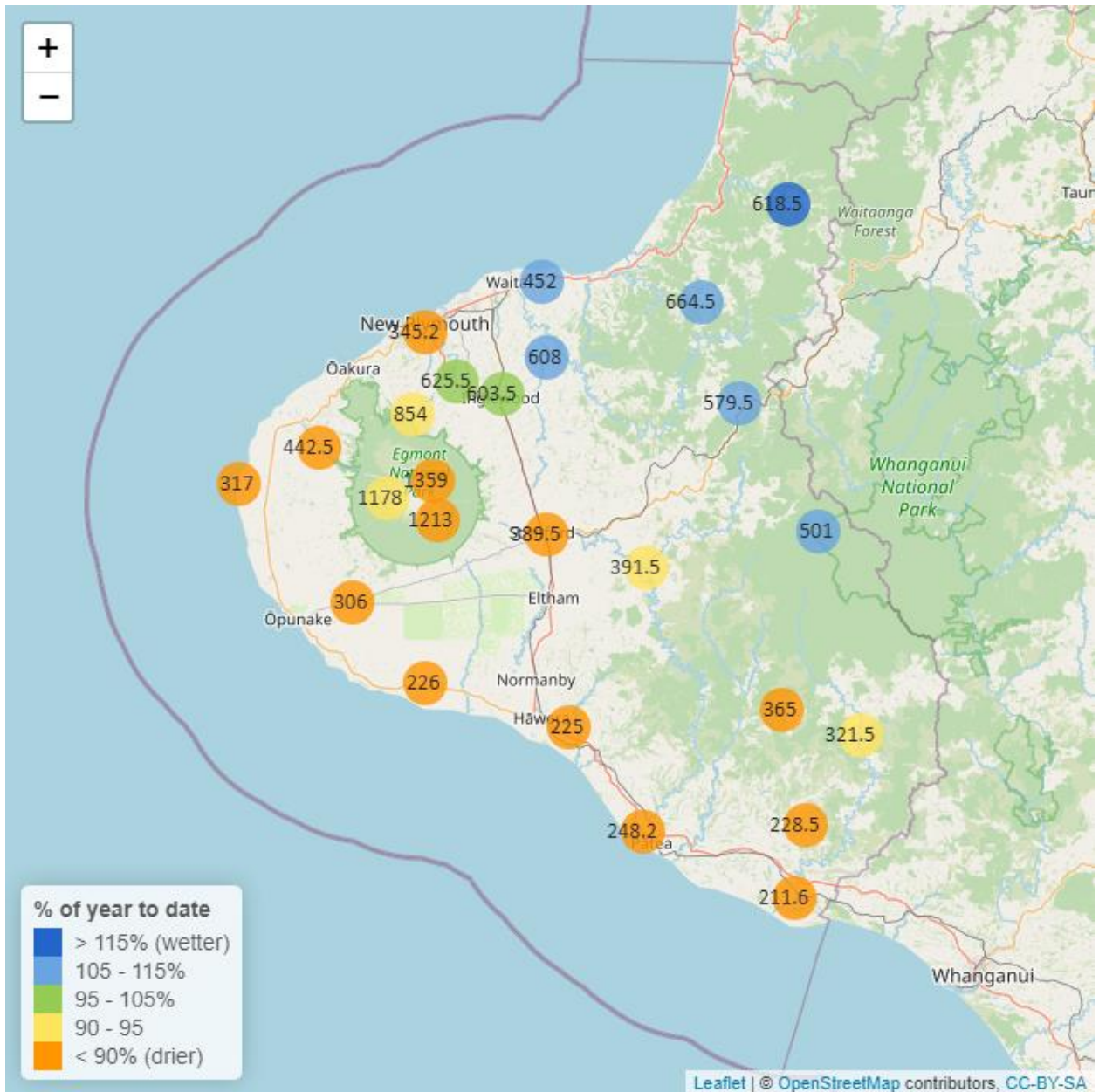
Note: The data presented here are provisional data only and may change as a result of quality control at a later date.

## 1. Rainfall

Map 1: April total rainfall (mm) and percentage of long-term mean (colour key).



Map 1a. Total rainfall 1 January to end April (mm) and percentage of long-term mean (colour key).



**Table 1: Rainfall April and year to date totals for rain gauge sites in Taranaki.**

Rain gauge	April			Year to Date			Records Began
	# days with rain	Total rain (mm)	% of typical month	Total to date (mm)	% of typical year to date	% of typical full year	
North Egmont at Visitors Centre	18	519.0	102.1	1359.0	79.3	19.6	1991
Dawson Falls	17	512.0	106.4	1213.0	79.9	20.4	1933
Kapoaiaia at Kahui Hut	20	485.0	120.6	1178.0	91.8	22.4	2006
Mangorei Upper at Forest Hill	15	346.5	144.3	854.0	93.3	22.8	2018
Waiwhakaiho at Hillsborough	13	223.5	136.3	456.5	89.6	24.9	2013
Brooklands Zoo at New Plymouth	14	172.0	120.6	345.2	76.1	21.3	2012
Motunui M39 at Weston W3	13	206.2	157.5	452.0	107.8	28.7	1999
Waiwhakaiho at Egmont Village	14	266.5	143.1	625.5	97.4	25.8	1991
Manganui at Everett Park	10	286.0	173.8	608.0	109.7	29.3	1987
Inglewood at Oxidation Ponds	11	250.0	145.3	603.5	101.4	25.6	2000
Stony at Mangatete Bridge	14	158.5	96.7	442.5	81.9	22.1	2004
Kapoaiaia at Lighthouse	14	114.8	96.9	317.0	79.8	22.8	1930
Taungatara at Eltham Rd	12	80.5	62.6	306.0	75.9	19.4	2005
Kaupokonui at Glenn Rd	10	40.5	40.5	226.0	73.0	19.3	1998
Patea at Stratford	12	181.5	122.9	389.5	76.3	19.6	1999
Mangaehu at Bridge	13	166.5	133.4	391.5	92.3	24.6	1999
Kotare at OSullivans	15	190.5	129.2	618.5	116.4	28.7	1998
Uruti at Kaka Rd	15	245.5	142.6	664.5	114.0	29.8	1991
Pohokura Saddle	17	235.5	153.5	579.5	113.6	29.1	1991
Omaru at Charlies	15	182.0	126.1	501.0	107.4	27.4	2006
Omahine at Moana Trig	15	114.0	82.0	365.0	81.1	21.6	2007

	April			Year to Date			
Rain gauge	# days with rain	Total rain (mm)	% of typical month	Total to date (mm)	% of typical year to date	% of typical full year	Records Began
Waitotara at Rimunui Station	10	104.5	95.2	321.5	90.9	23.3	1994
Waitotara at Ngutuwera	8	72.5	73.2	228.5	66.2	17.7	1999
Tawhiti at Duffys	12	68.0	68.3	225.0	74.2	20.3	1994
Patea at Bore 3	12	64.8	59.8	248.2	76.8	21.0	2006
Waitotara at Hawken Rd	8	50.6	53.1	211.6	59.4	17.8	2016

## 1.2 Long-term data patterns

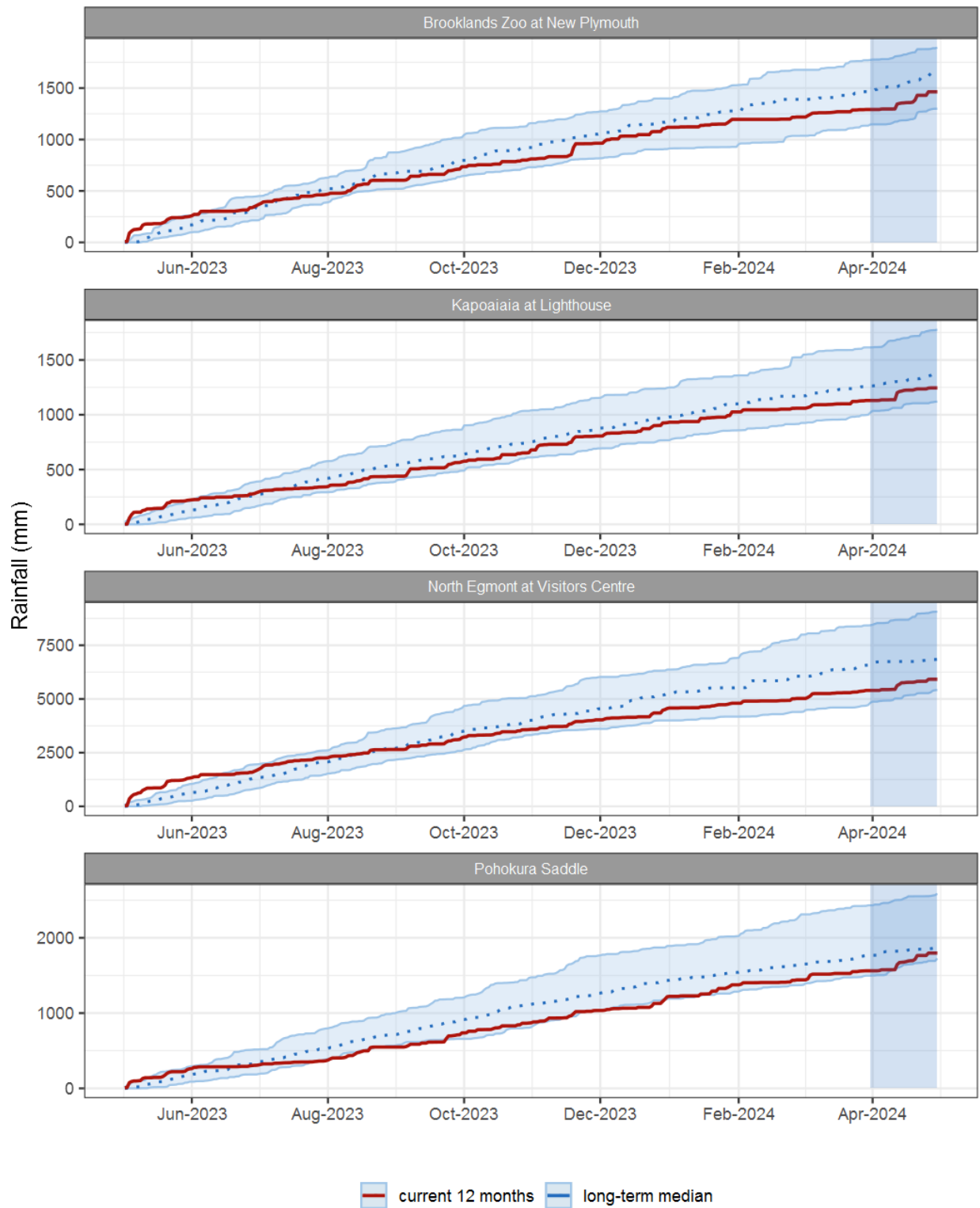


Figure 1.1: This year's and last year's data set in context of historic record at selected rain gauge sites in Taranaki.

### 1.3 Monthly Bar Charts

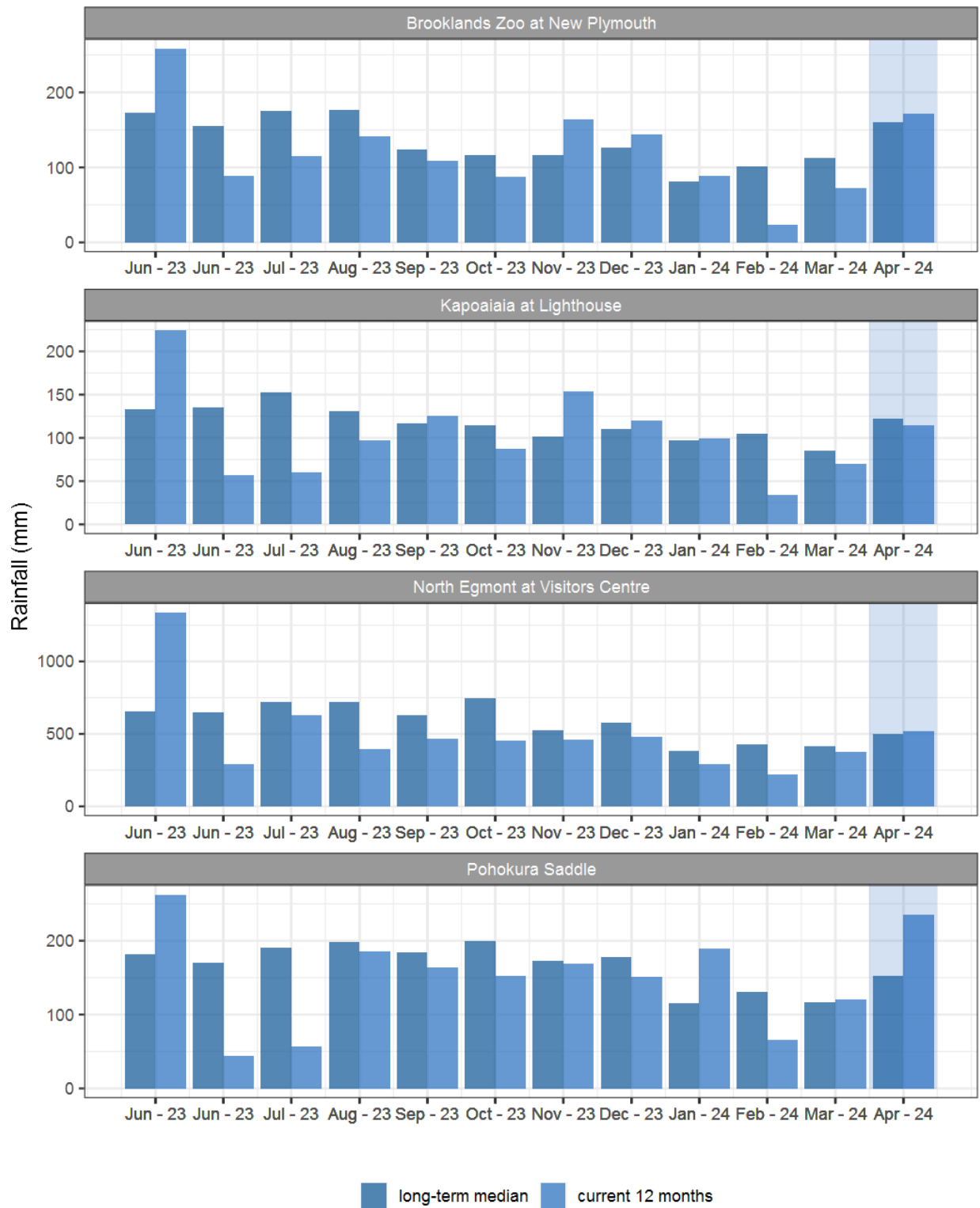
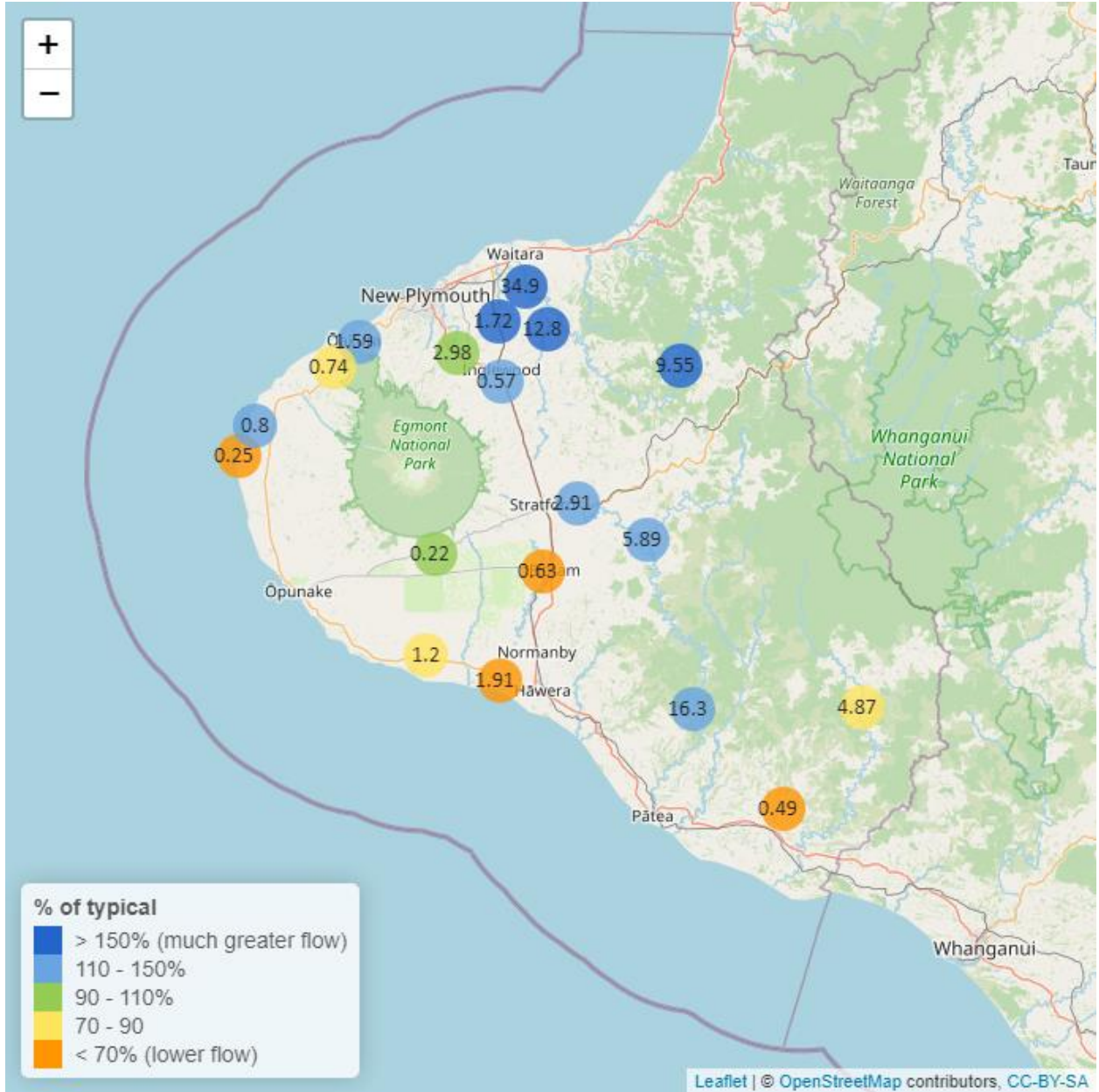


Figure 1.2: Monthly rainfall totals for this month and the mean of all previously recorded months.

## 2. River Flow

Map 2: April mean river flows (m<sup>3</sup>/sec), with difference as percentage of long-term mean.



**Table 2: Summary of high, low and mean flow for April and for April in all preceding years of record.**

April 2024 - Recorded flows (m3/sec)								
River and Site	Highs		Lows		Mean		April maximum	Data years
	current month	historic	current month	historic	current month	historic		
Kapoaiaia at Lighthouse	4.64	2.47	0.15	0.26	0.25	0.50	19.64	38
Kaupokonui at Glenn Rd	6.57	6.14	0.65	0.68	1.20	1.41	34.39	45
Mangaehu at Bridge	58.25	36.07	1.93	2.08	5.89	4.89	139.41	46
Manganui at Everett Park	84.66	50.49	4.36	3.57	12.80	7.22	243.76	31
Mangawheroiti Above Intake W.W	0.99	0.94	0.14	0.12	0.22	0.24	6.16	11
Moumahaki at Johnston Rd	2.46	4.72	0.32	0.49	0.49	0.78	4.81	5
Ngatoro at SH3	5.02	3.58	0.31	0.27	0.57	0.50	22.32	34
Oakura at Victoria Rd	13.43	6.95	0.58	0.51	1.59	1.25	43.59	5
Patea at McColls Bridge	66.10	64.17	3.34	2.24	16.30	10.89	67.31	34
Patea at Skinner Rd	11.42	12.18	0.60	0.70	2.91	2.28	24.84	46
Timaru at Tataraimaka	4.62	6.18	0.30	0.32	0.74	0.86	37.28	11
Waingongoro at Eltham Rd	4.45	5.73	0.26	0.39	0.63	1.00	23.91	49
Waingongoro at SH45	7.21	11.93	1.04	1.22	1.91	2.92	25.11	43
Waiongana at SH3a	9.76	6.63	0.48	0.41	1.72	1.06	62.49	43
Waitara at Bertrand Rd	222.12	171.64	7.36	7.13	34.90	20.88	316.41	43
Waitara at Purangi Bridge	117.41	69.78	1.39	0.70	9.55	3.63	188.83	25
Waitotara at Rimunui Station	51.47	36.23	2.26	2.87	4.87	5.73	97.56	18
Waiwhakaiho at Egmont Village	29.43	20.83	1.88	1.98	2.98	3.29	104.15	44
Warea at Coast	4.59	2.30	0.40	0.34	0.80	0.57	17.05	7



## 2.2 Long-term data patterns

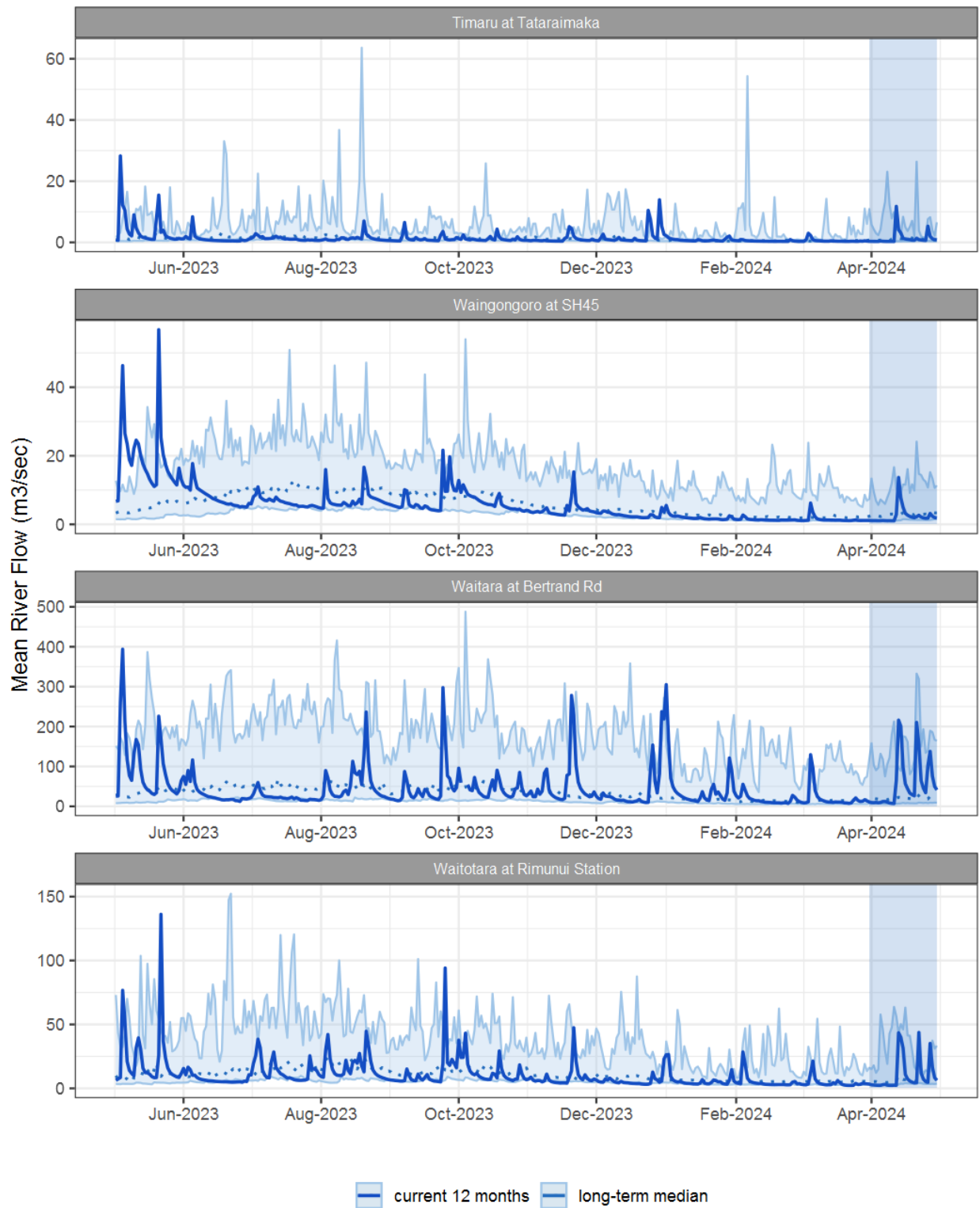


Figure 2.1: Running average river flows for selected sites, set in context of the historic record.

### 2.3 Monthly Bar Charts

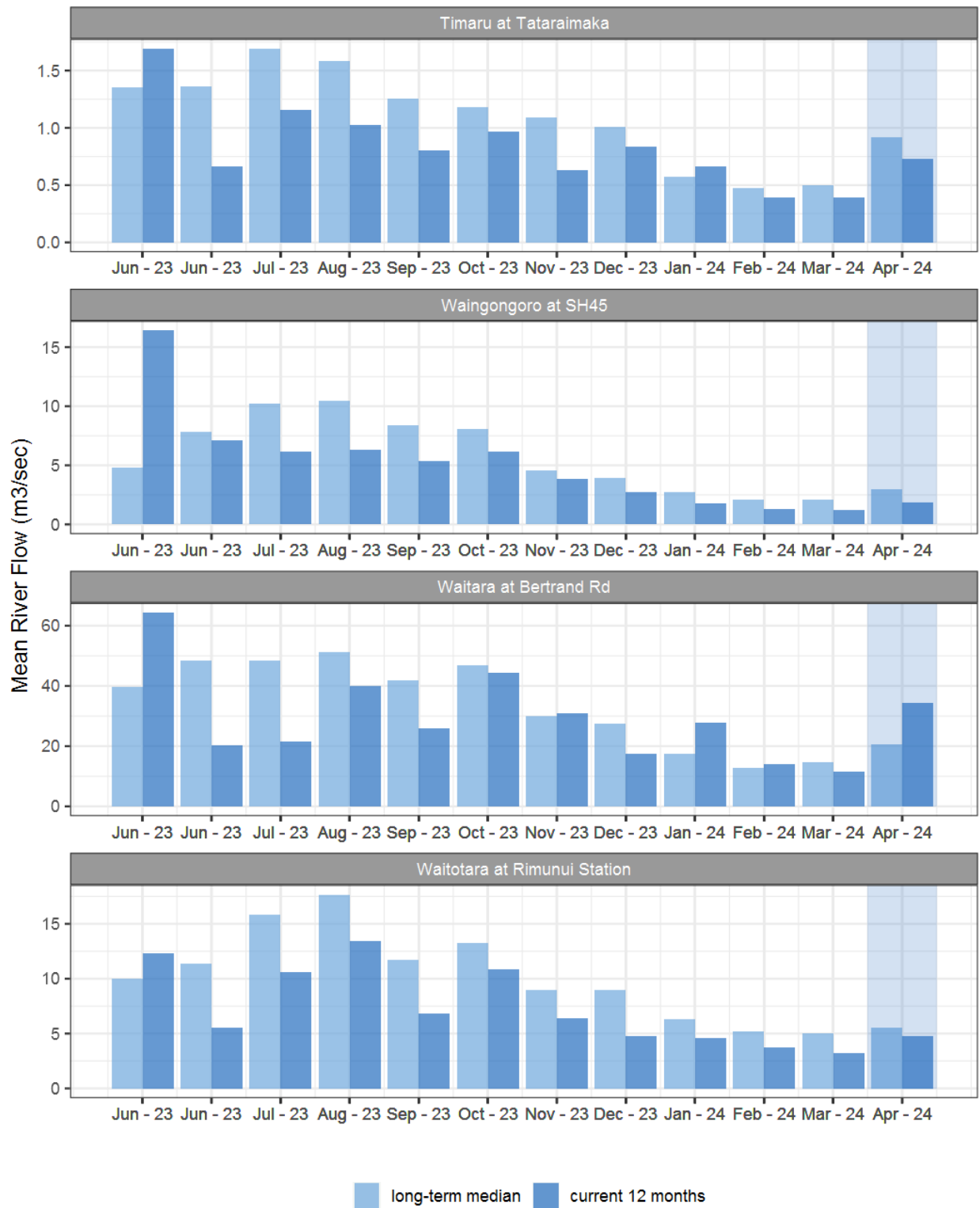
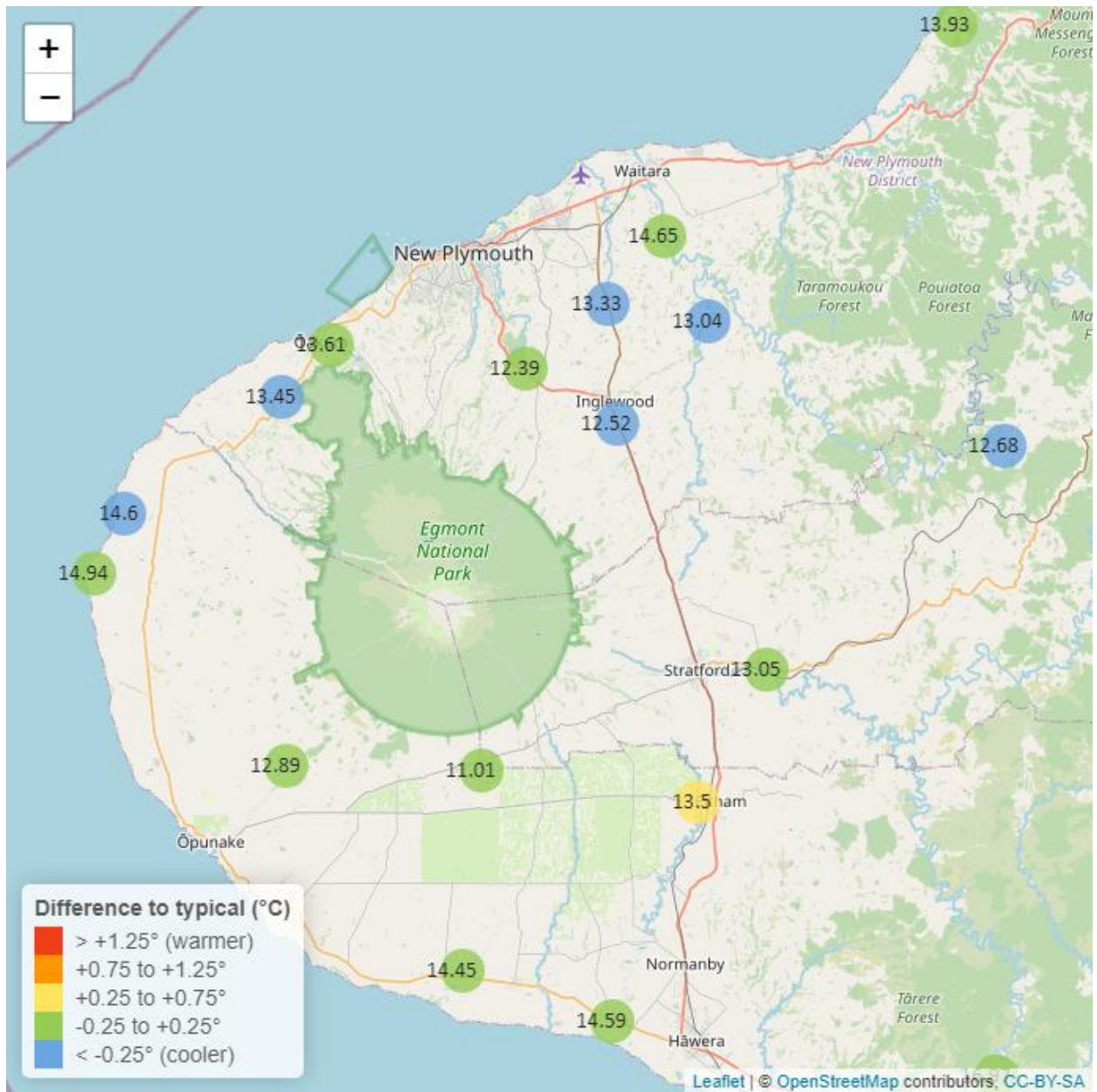


Figure 2.2: Monthly mean river flow for this month and the mean of all previously recorded months.

### 3. River Temperature

Map 3: April mean water temperature with difference to long-term mean (°C).



**Table 3: Summary of high, low and mean river temperature for April and for April in all preceding years of record.**

April 2024 - River Temperature (°C)								
River and Site	Highs		Lows		Mean		April maximum	Data years
	current month	historic	current month	historic	current month	historic		
Kapoaiaia at Lighthouse	17.60	18.03	12.30	11.68	14.94	14.96	18.96	24
Kaupokonui at Glenn Rd	18.01	17.70	11.00	11.30	14.45	14.44	19.93	31
Manganui at Everett Park	15.03	16.32	10.85	11.32	13.04	13.81	15.87	15
Mangawheroiti Above Intake W.W	13.19	12.92	8.95	9.02	11.01	10.97	14.27	11
Matau at Woolshed	14.92	15.54	10.13	10.32	12.68	13.00	15.81	6
Ngatoro at SH3	14.88	15.36	10.12	10.23	12.52	12.85	15.62	22
Oakura at Victoria Rd	15.95	16.41	11.50	11.63	13.61	13.83	17.25	5
Patea at McColls Bridge	18.03	19.23	14.84	14.94	16.97	16.74	18.59	8
Patea at Skinner Rd	15.43	15.60	10.55	10.33	13.05	13.04	16.37	20
Timaru at Tataraimaka	15.78	16.20	11.36	11.31	13.45	13.75	17.02	10
Waiaua 2 at Barraclough Opuā	16.22	16.20	9.83	9.83	12.89	12.79	17.86	5
Waikaramarama at Bridge	15.97	16.20	11.17	11.97	13.93	14.06	16.88	6
Waingongoro at Eltham Rd	15.95	15.72	10.40	10.66	13.50	13.20	17.07	19
Waingongoro at SH45	17.05	17.23	11.63	11.58	14.59	14.39	17.99	20
Waiongana at SH3a	15.44	16.29	11.45	11.26	13.33	13.82	16.22	13
Waitara at Bertrand Rd	16.87	17.40	12.27	12.40	14.65	14.69	17.77	35
Waiwhakaiho at Egmont Village	14.34	15.05	10.33	9.80	12.39	12.57	15.37	31
Warea at Coast	17.53	18.20	11.99	12.15	14.60	15.02	18.97	4

### 3.2 Long-term data patterns

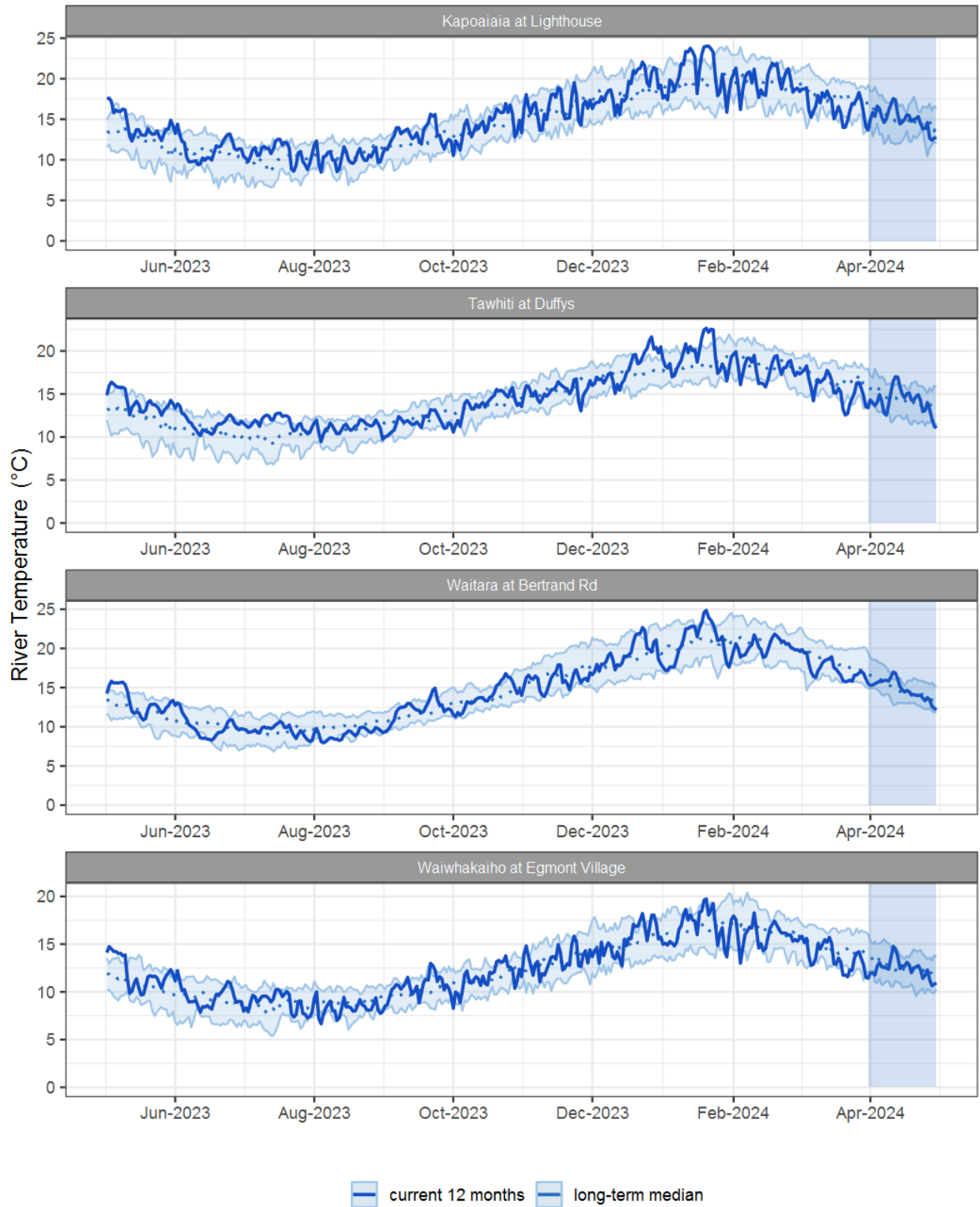


Figure 3.1: Running average river temperature for selected sites, set in context of the historic record.

### 3.3 Monthly Bar Charts

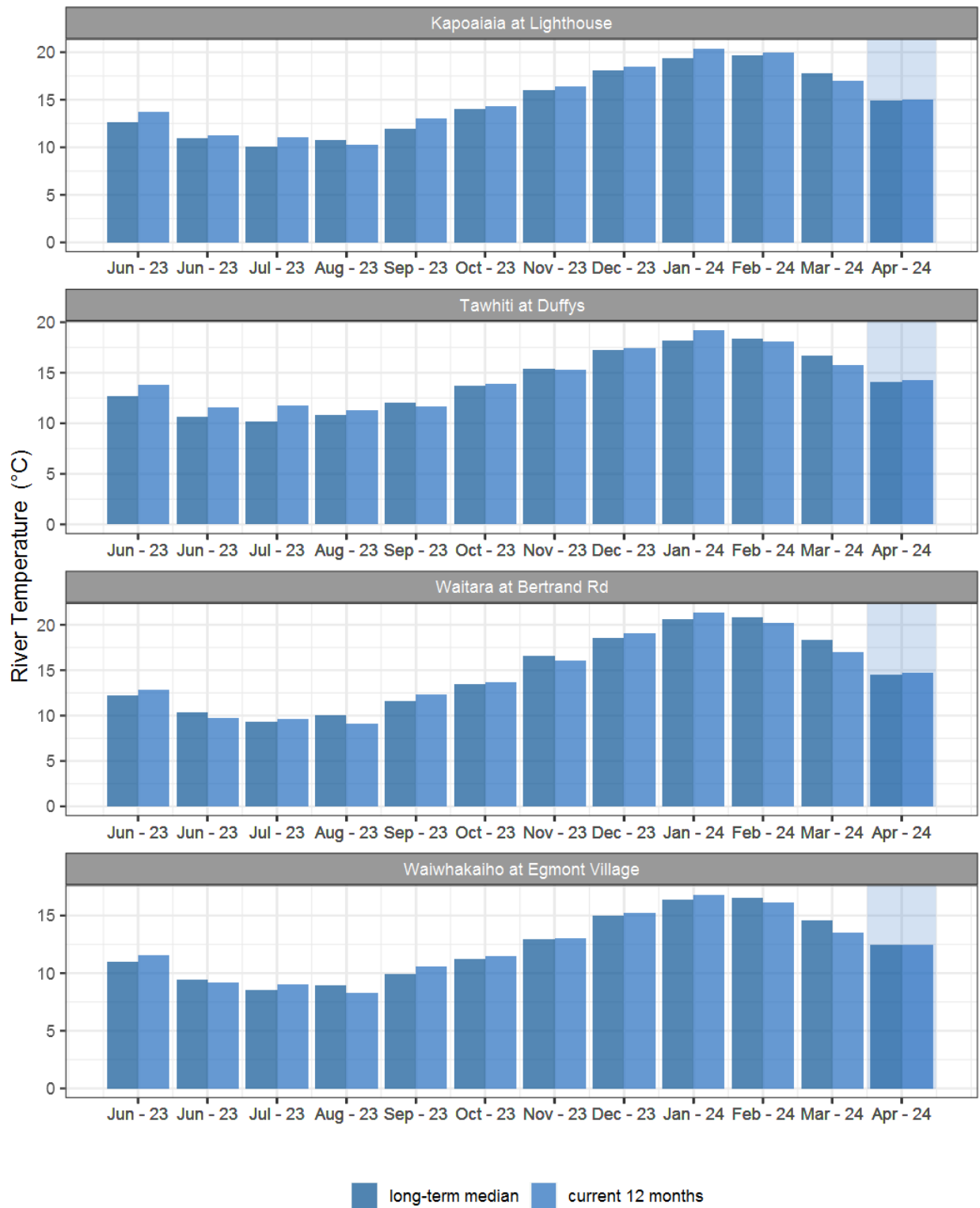


Figure 3.2: Monthly mean river temperature for this month and the mean of all previously recorded months.

## 4. Air Temperature

Map 4: April mean air temperature with difference to long-term mean (°C).

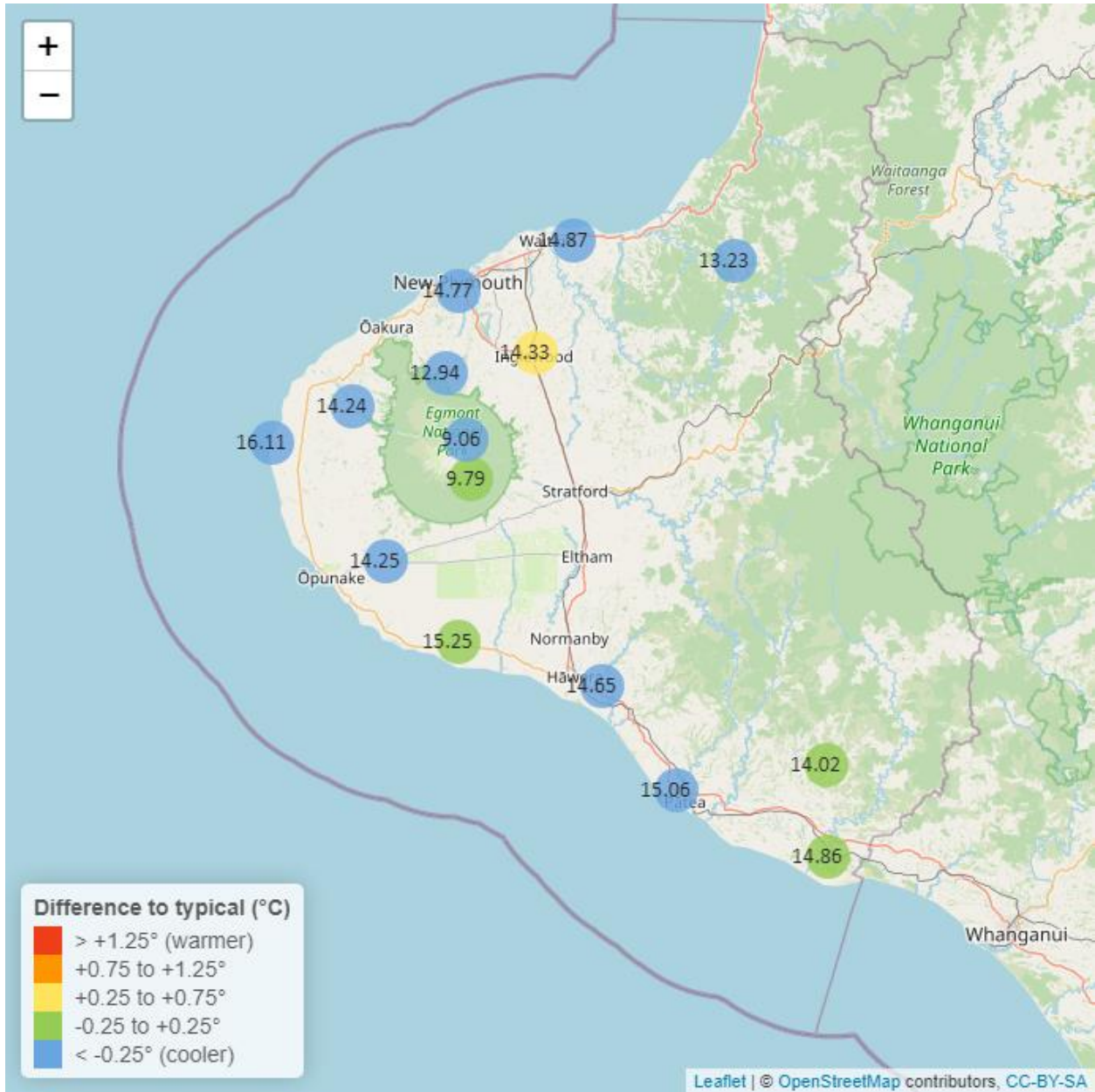


Table 4: Summary of high, low and mean air temperature for April and for April in all preceding years of record.

April 2024 - Air Temperature (°C)								
River and Site	Highs		Lows		Mean		April maximum	Data years
	current month	historic	current month	historic	current month	historic		
Brooklands Zoo at New Plymouth	20.54	21.38	9.20	9.53	14.77	15.70	22.51	12

April 2024 - Air Temperature (°C)								
River and Site	Highs		Lows		Mean		April maximum	Data years
	current month	historic	current month	historic	current month	historic		
Dawson Falls	13.81	14.58	4.72	5.19	9.79	9.87	16.84	8
Inglewood at Oxidation Ponds	19.71	19.68	7.47	6.87	14.33	14.08	21.94	12
Kapoaiaia at Lighthouse	19.49	19.76	10.99	10.59	16.11	16.53	21.42	12
Kaupokonui at Glenn Rd	20.11	20.04	7.72	8.17	15.25	15.27	23.84	9
Mangorei Upper at Forest Hill	16.70	17.24	8.80	8.46	12.94	13.33	18.92	7
Motunui M39 at Weston W3	19.16	19.77	8.73	9.00	14.87	15.25	21.01	6
North Egmont at Visitors Centre	12.92	14.88	3.80	5.03	9.06	9.99	14.23	9
Patea at Bore 3	20.03	19.90	8.68	9.26	15.06	15.48	24.43	11
Stony at Mangatete Bridge	18.62	19.67	9.12	9.65	14.24	14.96	20.55	8
Taungatara at Eltham Rd	19.67	19.08	8.59	8.65	14.25	14.61	21.96	9
Tawhiti at Duffys	19.96	20.05	3.71	5.25	14.65	15.10	24.12	11
Uruti at Kaka Rd	17.94	18.30	8.59	8.61	13.23	13.57	20.69	6
Waitotara at Hawken Rd	21.08	20.17	7.94	8.51	14.86	15.02	25.54	7
Weraweraonga at 749 Mangawhio Rd	20.56	20.46	5.48	6.21	14.02	13.94	24.07	7



## 4.2 Long-term data patterns

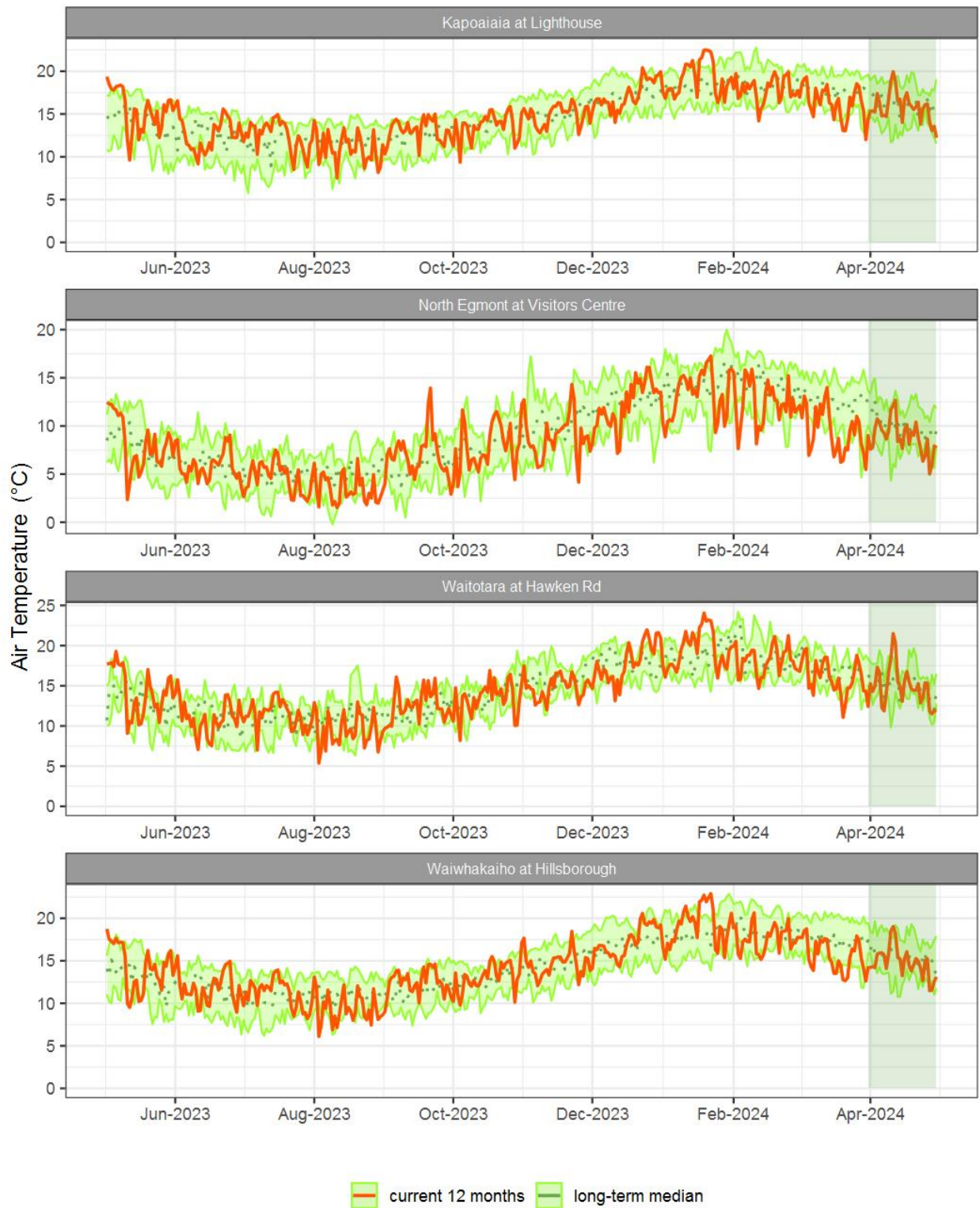


Figure 4.1: Running average air temperature for selected sites, set in context of the historic record.

### 4.3 Monthly Bar Charts

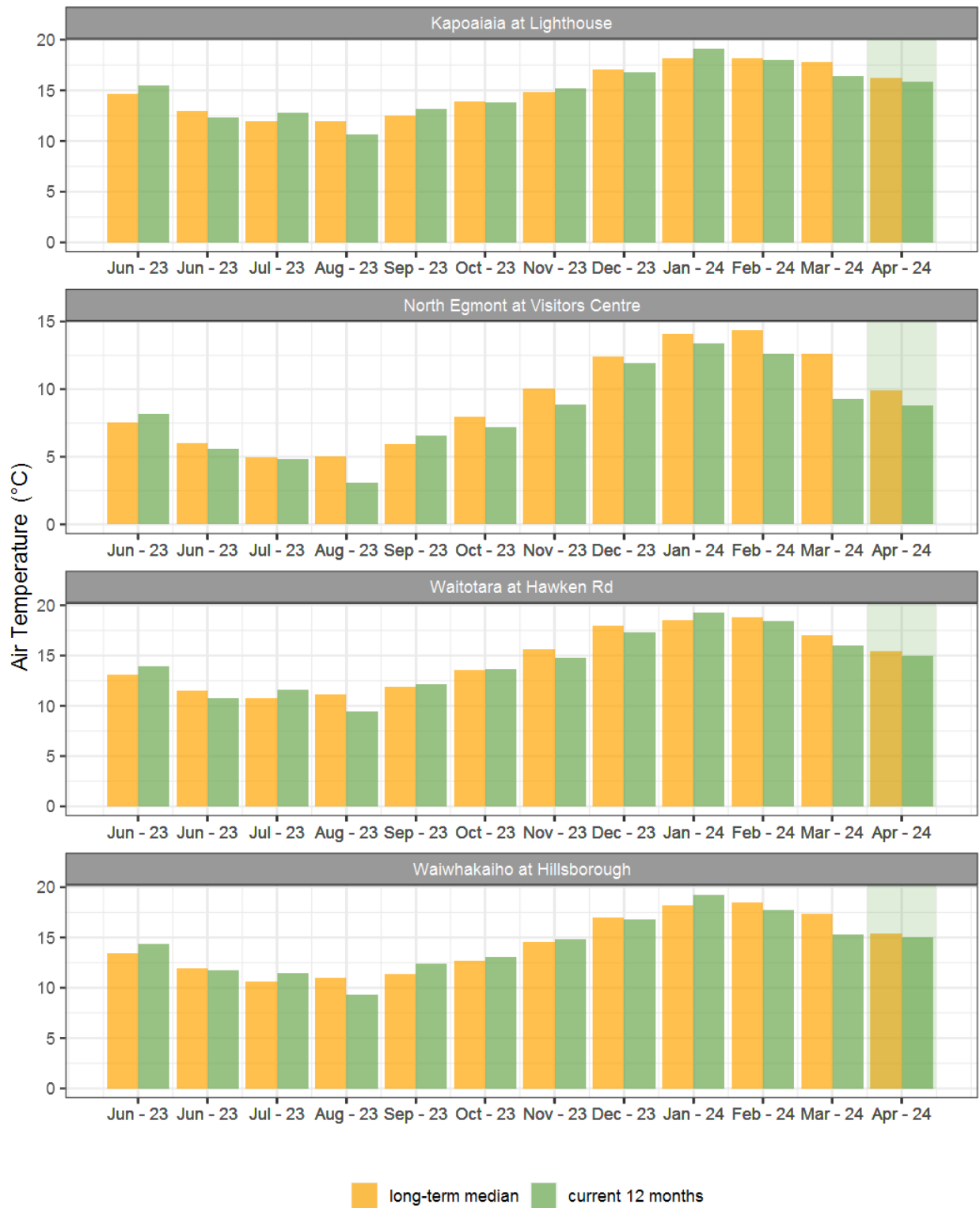
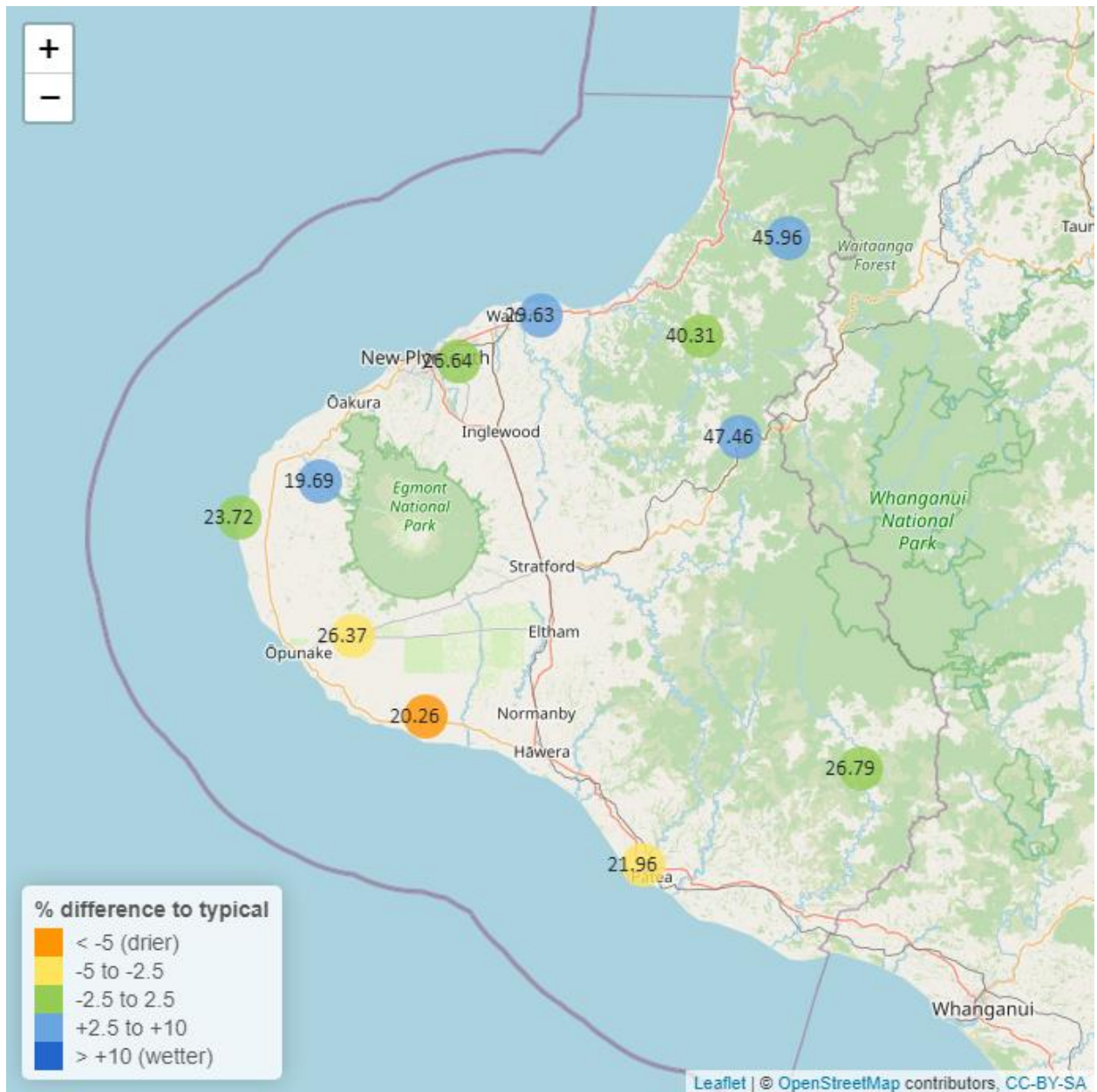


Figure 4.2: Monthly mean air temperature for April and the mean of all previously recorded months.

## 5. Soil Moisture

Map 5: April mean soil moisture content (%).



**Table 5: Summary of high, low and mean soil moisture for April and for April in all preceding years of record.**

April 2024 - Soil Moisture (%)								
River and Site	Highs		Lows		Mean		April maximum	Data years
	current month	historic	current month	historic	current month	historic		
Kapoaiaia at Lighthouse	24.71	29.50	17.69	7.92	23.72	24.09	24.86	12
Kaupokonui at Glenn Rd	21.67	35.99	17.98	11.20	20.26	30.20	21.80	13
Kotare at OSullivans	51.20	45.98	42.61	23.80	45.96	36.21	56.14	12
Motunui M39 at Weston W3	31.22	30.21	24.90	14.05	29.63	26.91	34.90	9
Patea at Bore 3	23.34	30.63	19.85	19.06	21.96	26.86	23.46	7
Pohokura Saddle	53.60	50.02	39.65	27.94	47.46	40.59	55.52	9
Stony at Mangatete Bridge	23.47	22.29	13.39	6.76	19.69	14.57	25.75	8
Taungatara at Eltham Rd	27.49	40.36	18.74	15.53	26.37	30.32	27.63	11
Uruti at Kaka Rd	41.50	43.30	37.65	27.17	40.31	38.21	41.97	12
Waitotara at Rimunui Station	29.40	29.92	22.99	21.05	26.79	25.73	31.98	7
Waiwhakaiho at Hillsborough	28.60	28.60	23.07	17.38	26.64	25.64	30.52	12

## 5.2 Long-term data patterns

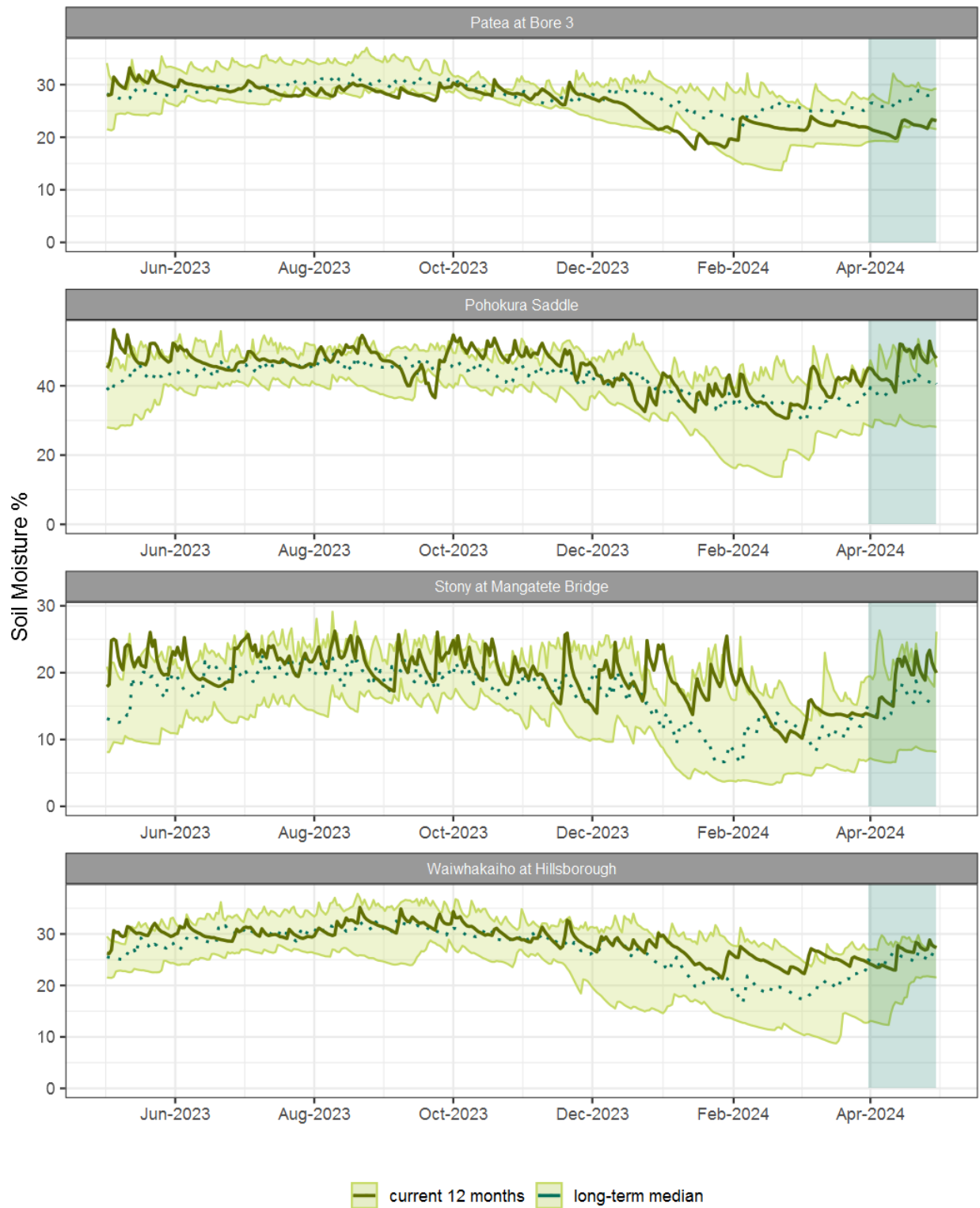


Figure 5.1: Running average soil moisture for selected sites, set in context of the historic record.

### 5.3 Monthly Bar Charts

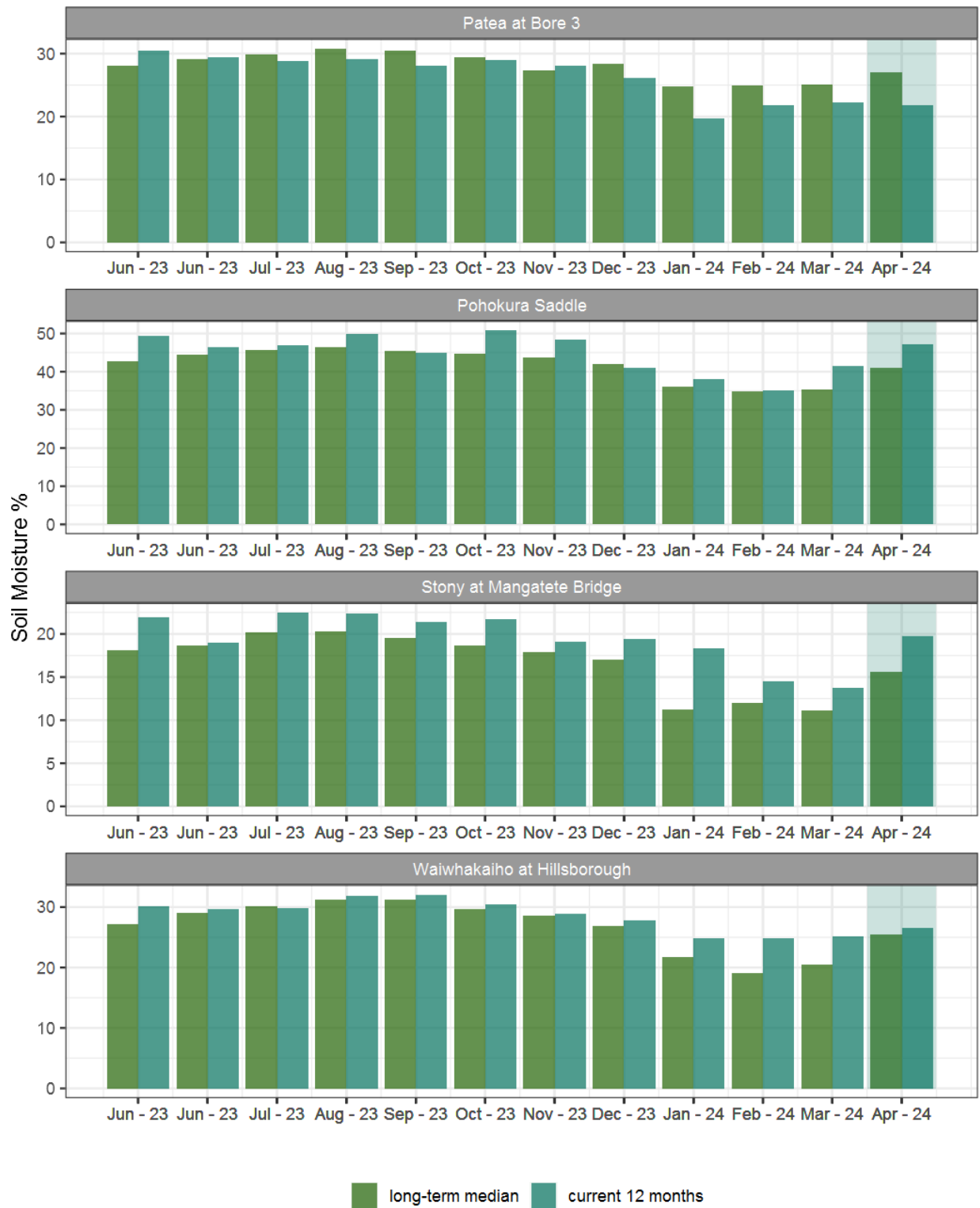
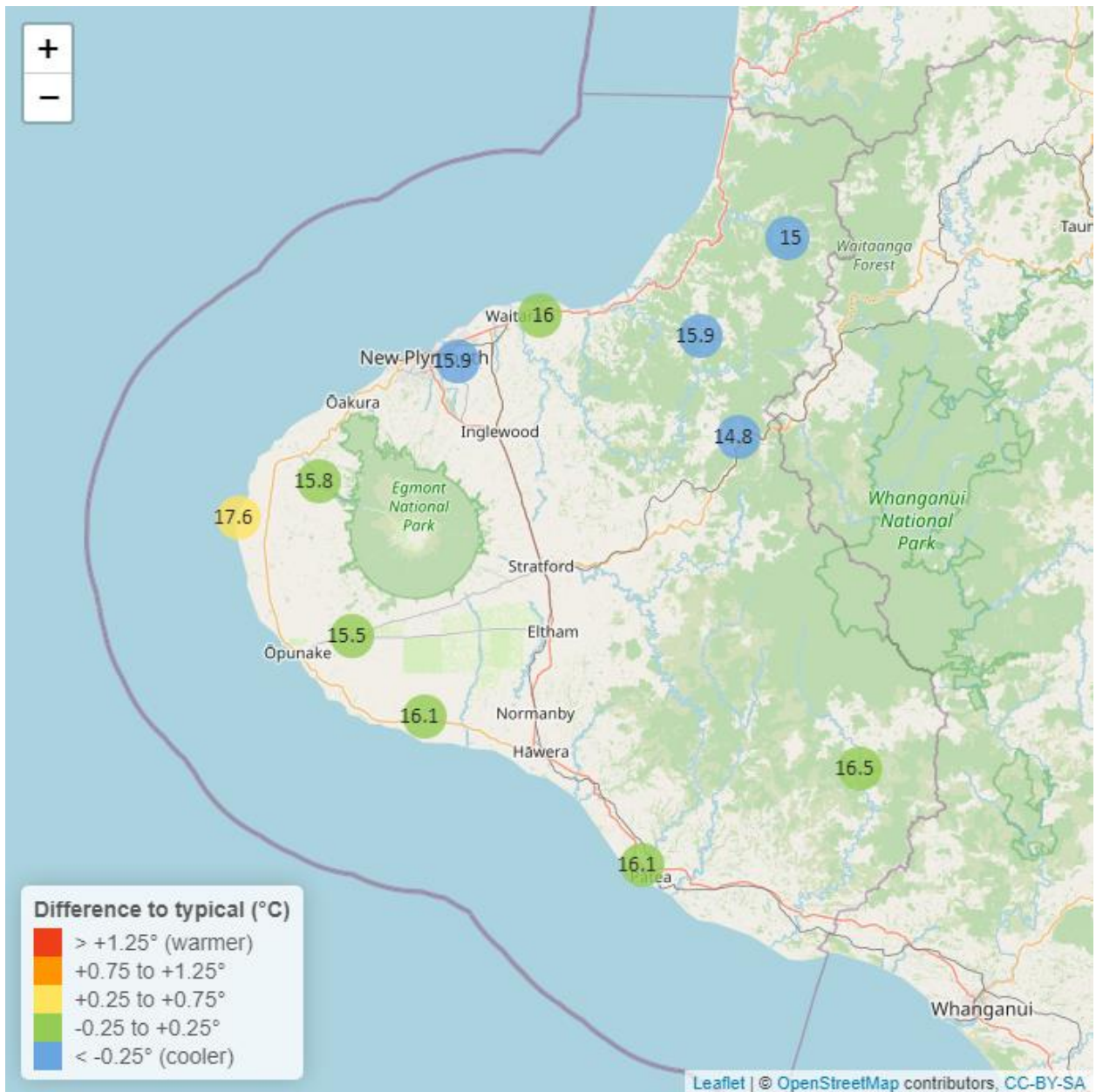


Figure 5.2: Monthly mean soil moisture for this month and the mean of all previously recorded months.

## 6. Soil Temperature

Map 6: April mean soil temperatures with difference to long-term mean (°C).



**Table 6: Summary of high, low and mean soil temperature for April and for April in all preceding years of record.**

April 2024 - Soil Temperatures (°C)								
River and Site	Highs		Lows		Mean		April maximum	Data years
	current month	historic	current month	historic	current month	historic		
Kapoaiaia at Lighthouse	18.87	19.52	14.55	15.05	17.6	17.06	19.51	12
Kaupokonui at Glenn Rd	17.40	18.37	13.51	14.10	16.1	16.00	17.90	13
Kotare at OSullivans	16.42	17.80	12.80	13.07	15.0	15.39	16.87	12
Motunui M39 at Weston W3	17.53	17.94	14.18	13.73	16.0	15.81	18.15	9
Patea at Bore 3	17.30	18.72	13.80	13.83	16.1	15.88	17.91	7
Pohokura Saddle	16.17	17.98	11.83	13.92	14.8	15.50	16.80	9
Stony at Mangatete Bridge	17.23	18.52	13.64	13.10	15.8	15.61	17.70	7
Taungatara at Eltham Rd	17.00	17.80	13.31	13.71	15.5	15.40	18.20	11
Uruti at Kaka Rd	16.64	18.60	14.35	14.22	15.9	16.21	16.85	12
Waitotara at Rimunui Station	18.09	19.77	13.39	14.31	16.5	16.48	18.98	6
Waiwhakaiho at Hillsborough	17.35	18.39	13.78	14.20	15.9	16.20	17.79	12



## 6.2 Long-term data patterns

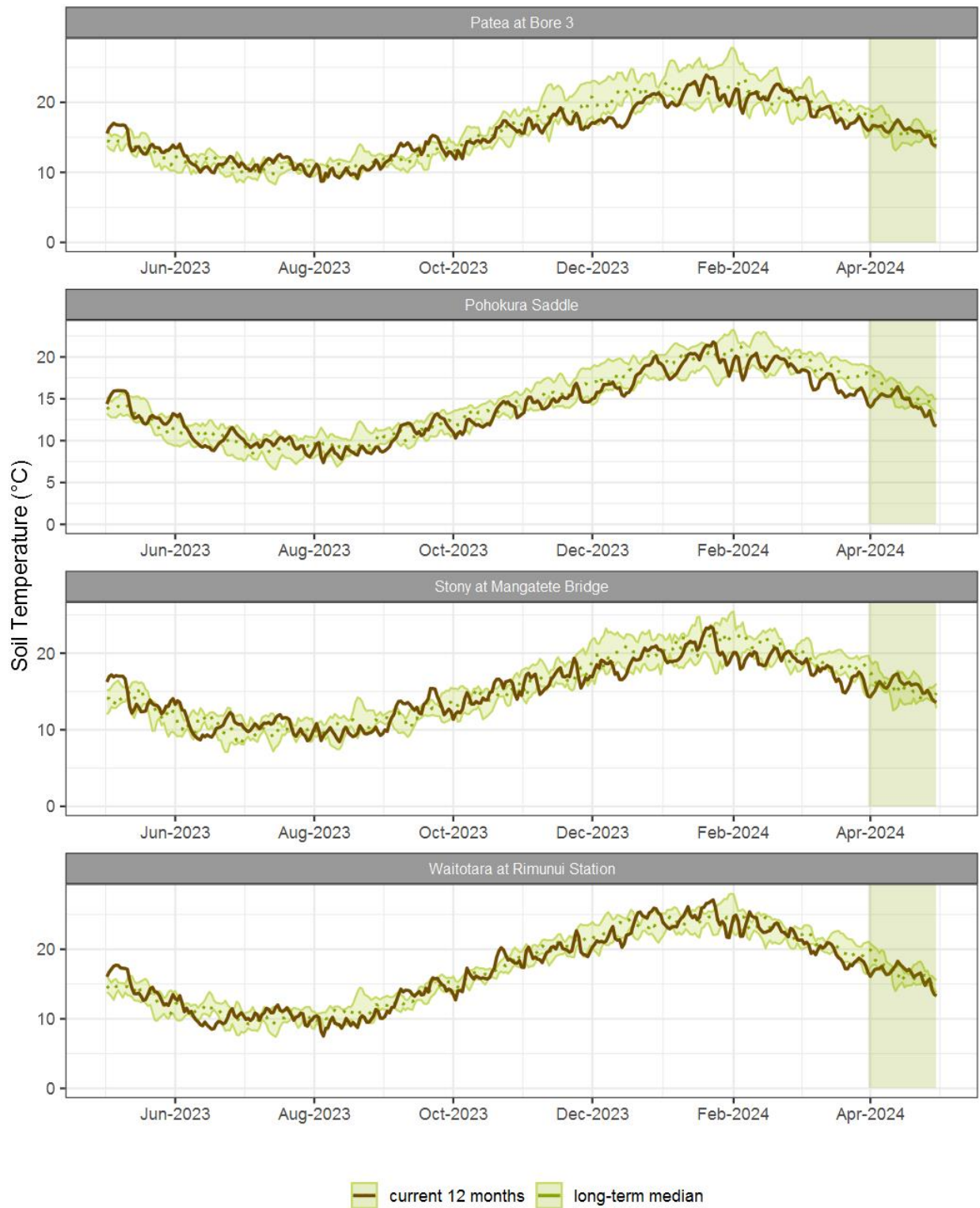


Figure 6.1: Running average soil temperature for selected sites, set in context of the historic record.

### 6.3 Monthly Bar Charts

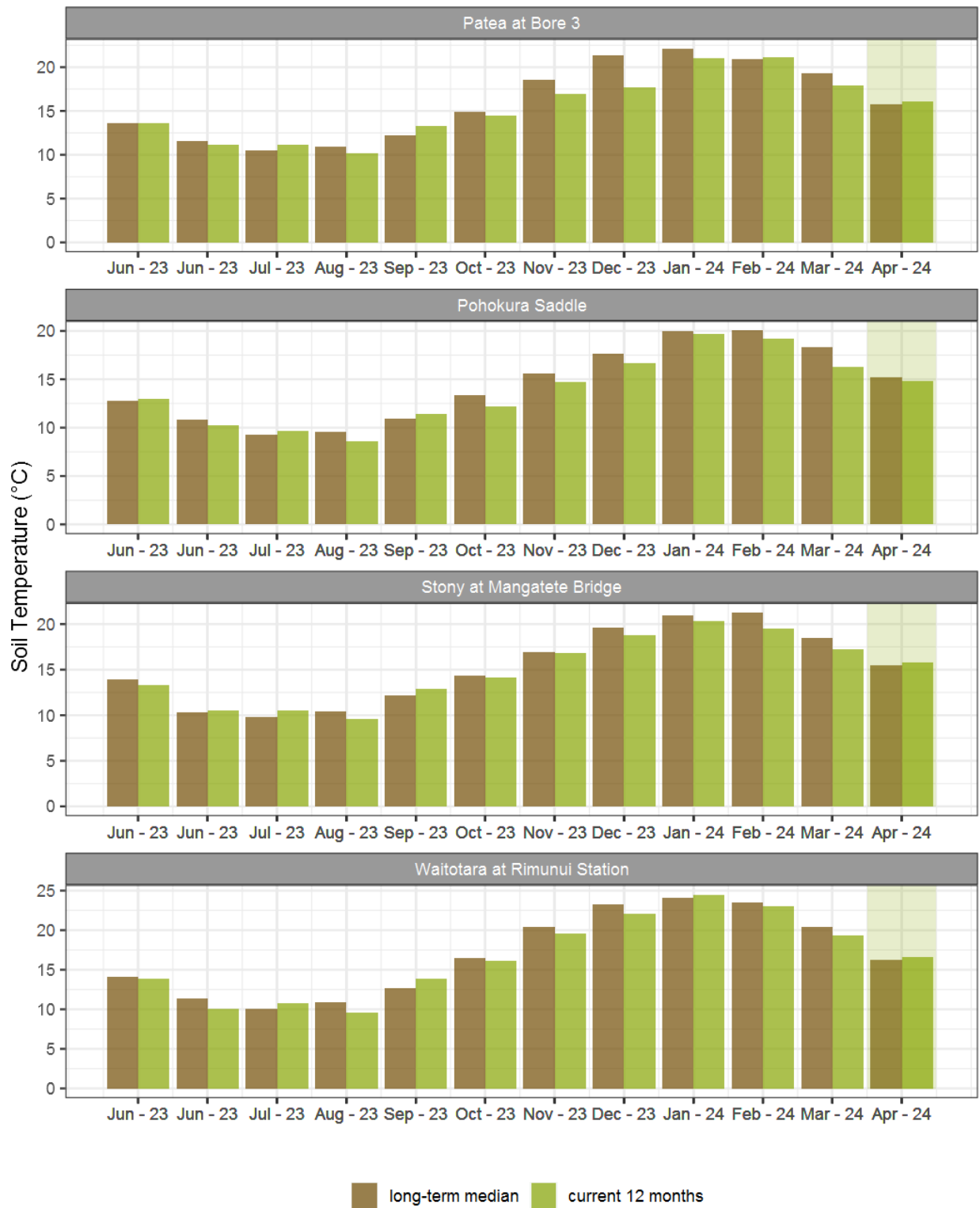


Figure 6.2: Monthly mean soil temperature for this month and the mean of all previously recorded months.

## 7. Wind Speed and Maximum Gusts

Map 7: April mean of wind speed with difference to long-term values (km/hr).



**Table 7: Summary of high, low and mean wind speed for April and for April in all preceding years of record.**

April 2024 - Wind Speed (average) - (km/hr)								
River and Site	Highs		Lows		Mean		April maximum	Data years
	current month	historic	current month	historic	current month	historic		
Hawera AWS	34.26	35.19	7.41	5.56	15.7	14.82	50.93	19
Kapoaiaia at Lighthouse	35.41	38.97	6.21	6.02	18.1	18.03	54.90	23
New Plymouth AWS	33.38	37.04	5.56	6.48	13.9	15.74	50.93	16
Patea at Bore 3	33.45	37.20	6.50	6.24	15.7	15.48	48.91	8
Patea at Stratford	17.09	16.48	2.50	2.03	5.2	5.76	27.02	18
Taungatara at Eltham Rd	31.10	29.54	5.12	6.44	12.8	13.69	51.89	8
Uruti at Kaka Rd	23.57	20.90	2.66	3.04	8.3	8.97	35.38	25
Waitotara at Ngutuwera	20.08	20.61	2.65	1.94	8.3	8.17	29.78	25
Waiwhakaiho at Hillsborough	24.61	26.30	3.61	4.17	10.5	11.96	36.40	6

**Table 8: Summary of high, low and maximum wind gusts for April and for April in all preceding years of record.**

April 2024 - Wind Gusts (Maximum) - (km/hr)								
River and Site	Highs		Lows		Mean		April maximum	Data years
	current month	historic	current month	historic	current month	historic		
Hawera AWS	79.64	70.38	22.22	20.37	40.7	42.6	96.30	19
Kapoaiaia at Lighthouse	72.20	79.50	17.40	20.80	35.0	44.0	81.10	23
New Plymouth AWS	75.93	75.93	20.37	20.37	42.6	42.6	75.93	16
Patea at Bore 3	72.40	71.50	21.80	21.00	40.8	42.3	74.40	8
Patea at Stratford	59.40	57.90	17.28	16.92	31.0	32.4	60.48	18
Taungatara at Eltham Rd	83.30	72.70	18.90	21.90	33.4	39.1	114.90	8
Uruti at Kaka Rd	73.80	65.52	20.16	19.10	33.5	34.2	74.16	23
Waitotara at Ngutuwera	66.60	61.92	19.44	17.30	37.8	35.1	88.20	25
Waiwhakaiho at Hillsborough	66.10	63.70	18.40	21.60	38.5	41.0	67.80	6

## 7.2 Long-term data patterns

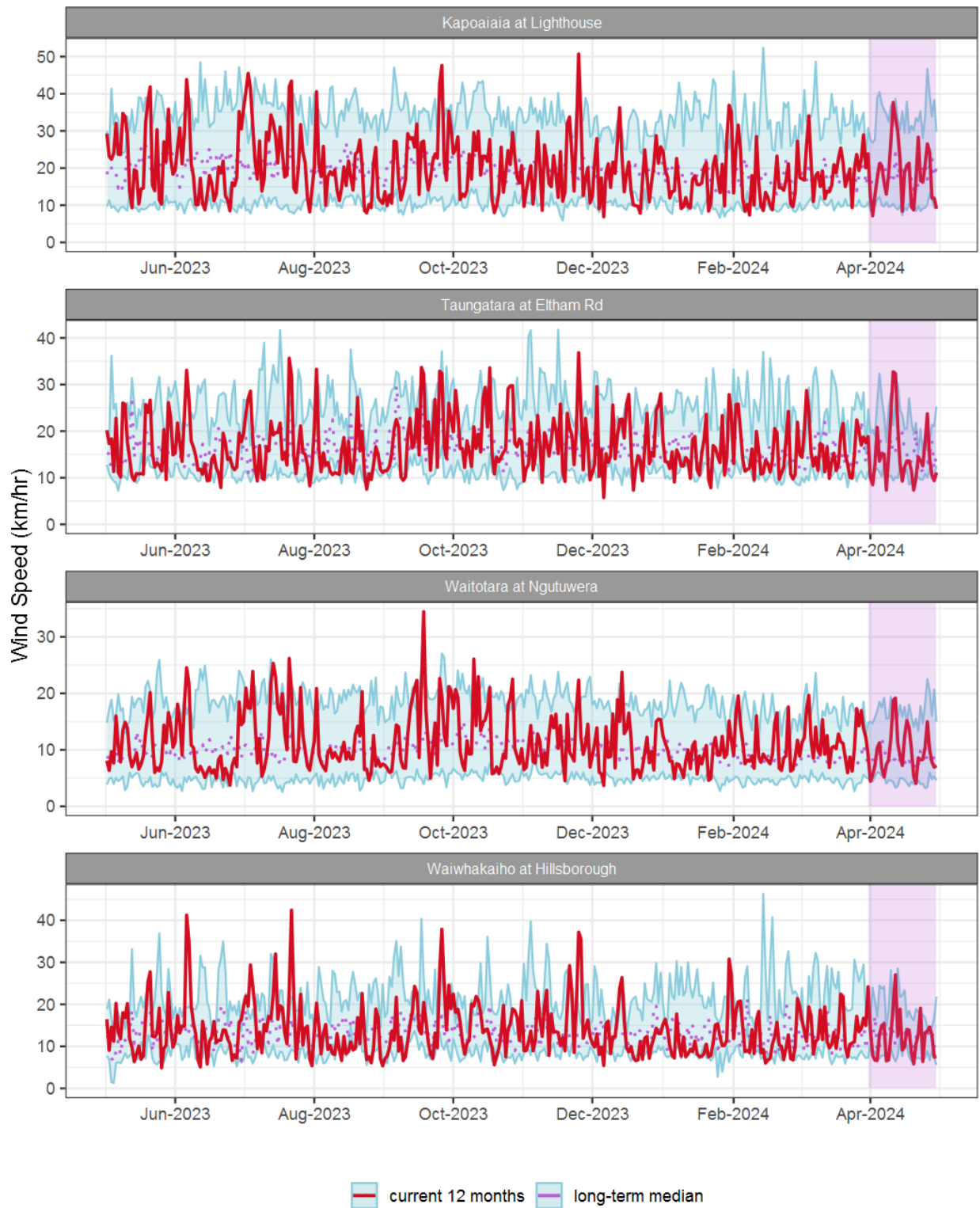


Figure 7.1: Running average wind speed (km/hr) for selected sites, set in context of the historic record.

### 7.3 Monthly Bar Charts

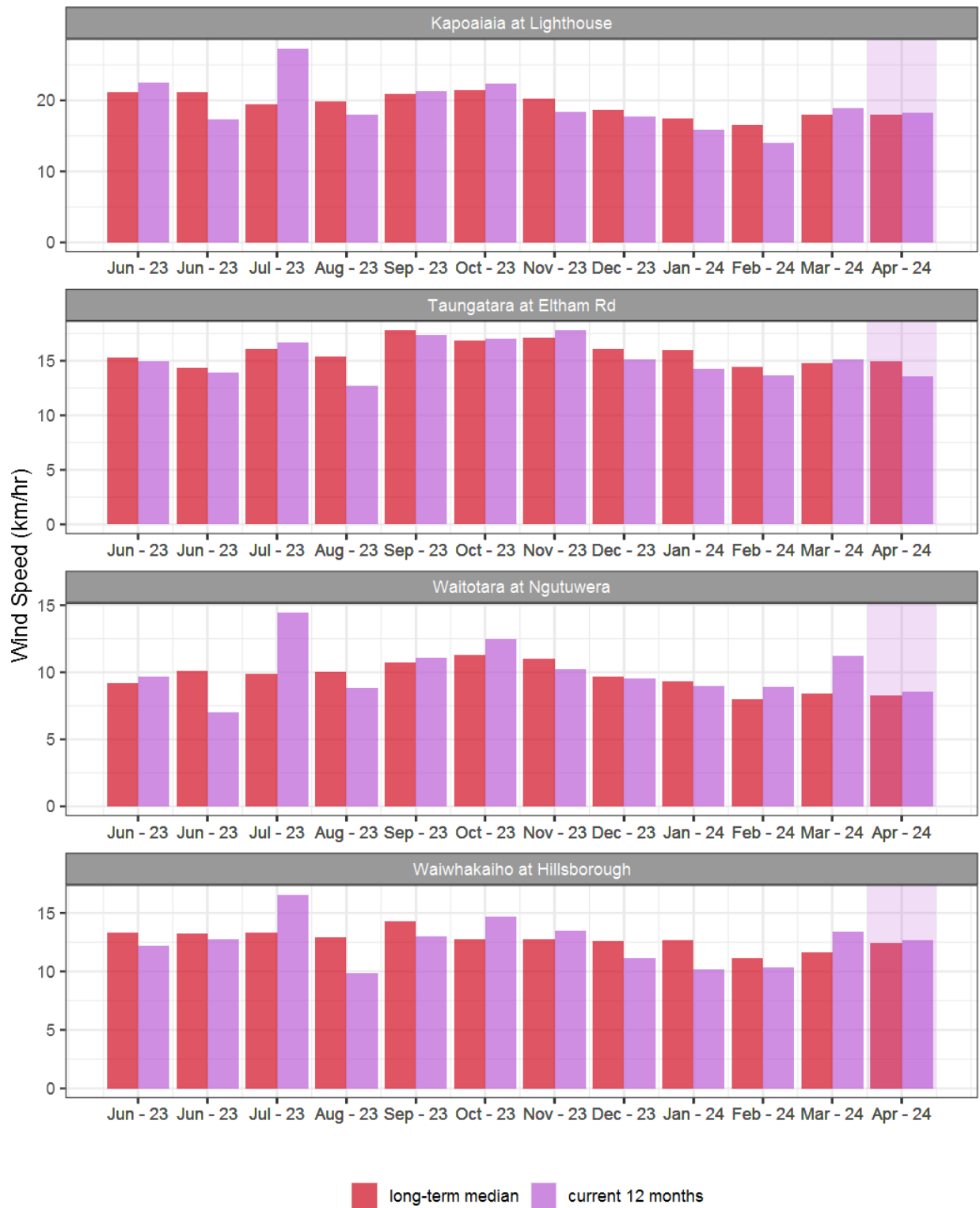


Figure 7.2: Monthly mean wind speed (km/hr) for selected sites, relative to the mean of all previously recorded months.

## 7.4 Wind roses for April 2024

### Average windspeed

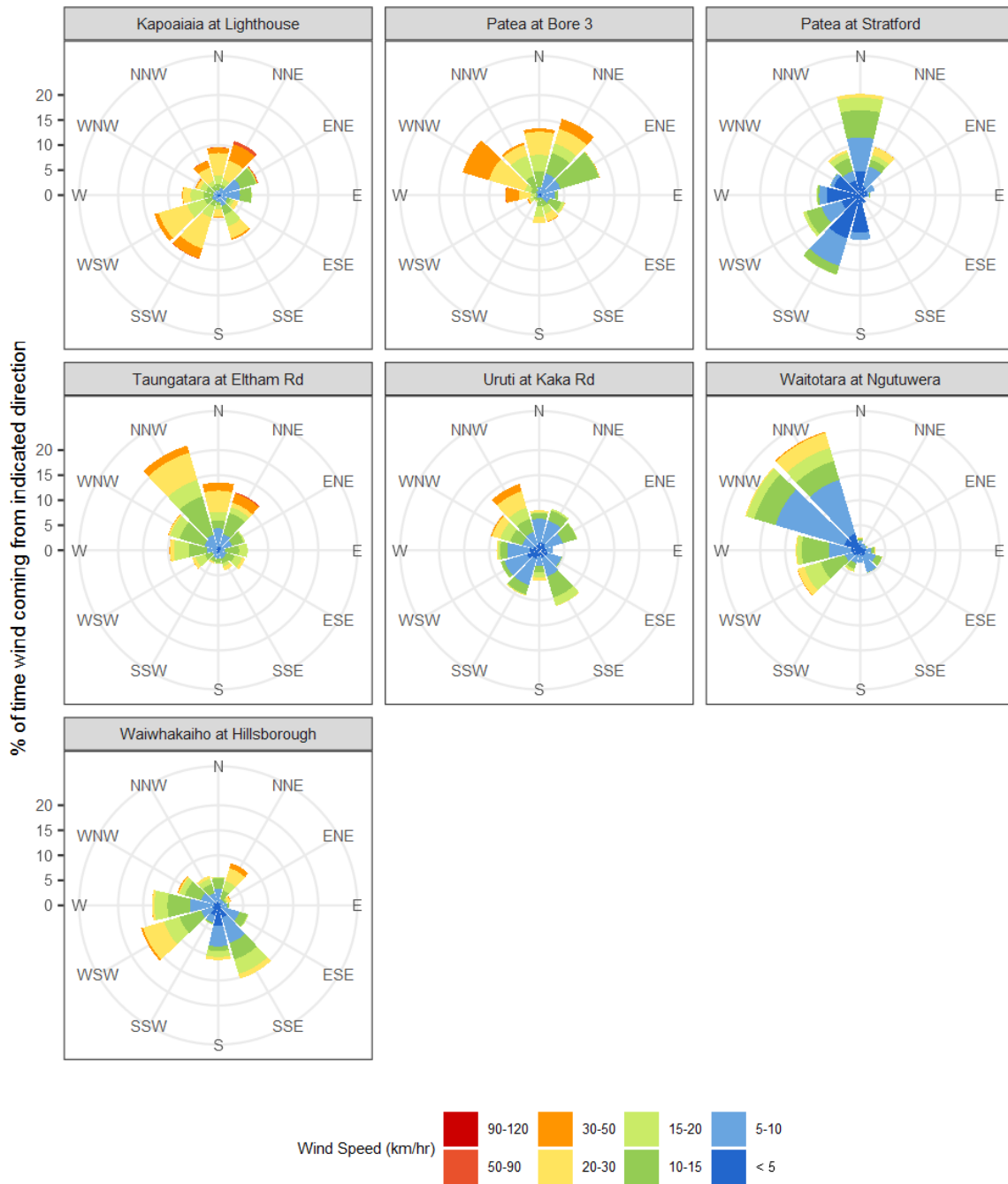


Figure 7.3: Wind roses for April for average wind speed (km/hr).

## Maximum gust strength

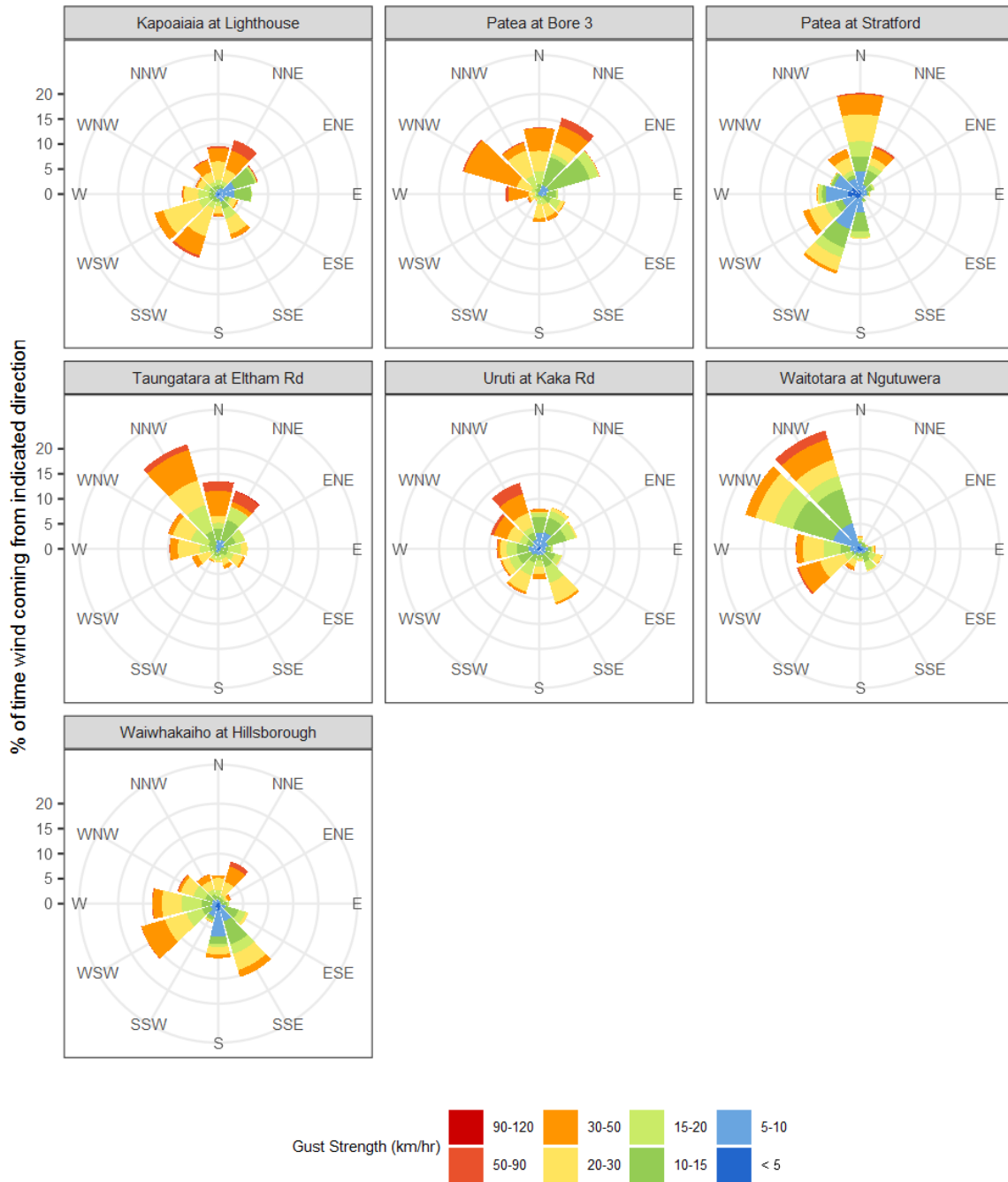


Figure 7.4: Wind roses for April for maximum wind gust (km/hr).



## 8. Summary of month's conditions

### Rainfall

On average April rainfall was 166.1 mm, 11% more than usual, ranging from 60% less rain at Kaupokonui at Glenn Rd, and 74% more at Manganui at Everett Park.

Year to date rainfall ranges from 41% less rainfall at Waitotara at Hawken Rd, and 16% more rainfall at Kotare at OSullivans, with an average of 11% less than normal. Compared to typical full year totals, on average sites have already received 24% of a typical year's rainfall, with the highest value at Uruti at Kaka Rd, 30% of normal, whereas Waitotara at Ngutuwera sits at 18% of the typical year's total.

### River Flow

Mean river flows for April were 36% greater than typical values, low flows were 2.4% lower and high flows 43.6% greater than typical values. The maximum river flow recorded in April was 316.4 m<sup>3</sup>/sec at Waitara at Bertrand Rd, on 20 April at 11pm.

### River Water Temperature

Mean river (non-mountain) water temperatures were 13.7°C, an average of 0.2°C cooler than long-term April values. Nighttime-low water temperatures were on average the same as historic lows, and day-time high temperatures were on average 0.4°C cooler than historic highs. The maximum river water temperature recorded in April was 19.93°C at Kaupokonui at Glenn Rd, on 10 April at 4pm.

### Air Temperature

The average air temperature for the region (excluding Te Maunga sites) was 13.9°C, which is 0.4°C cooler than long-term April averages. Low air temperatures for April were on average 0.3°C cooler than the April average for previous years. Day-time high temperatures were on average 0.3°C cooler than historic highs. The maximum air temperature recorded in April was 25.54°C at Waitotara at Hawken Rd, on 10 April at 1.30pm.

### Soil Moisture

The average soil moisture for April across sites in Taranaki region was 29.9%. Soil moistures were on average 0.9% wetter than typical April values. On average, low soil moistures were 7.9% wetter than previous lows, and the highs were on average 2.8% drier than previous values for April.

### Soil Temperature

April soil temperatures were generally the same as long-term averages. Average nighttime low soil temperatures were 0.4°C cooler than recorded lows, and upper day-time soil temperatures were on average 1.2°C cooler than long-term April highs. The maximum soil temperature recorded in April was 19.51°C at Kapoiaia at Lighthouse, on 1 April at 8pm.

## Wind Speed (average and 10 minute gust)

April average wind speeds were 12.9 km/hr, with average gust strength of 37.8 km/hr, these were 0.4km/hr lighter, and 2.3km/hr weaker than the long-term average. Average calm weather wind speeds were the same as the recorded lows, and windy conditions were on average 1.2km/hr lighter than long-term April highs. The maximum wind gust recorded in April was 114.9 km/hr at Taungatara at Eltham Rd, on 11 April at 1am.

Notes: Low and high values refer to the upper and lower 5th percentiles of the historic record for each site (wind, river flow and soil moisture are upper and lower 1st percentiles). These percentile values give a better indication of the general upper and lower range of the historic data against which to compare the current month. For example, minimum air temperature, because it is the lowest recorded value, accentuates the difference of the current month's colder conditions relative to the historical data. The start year (records began) for each site and variable in the respective tables shows the length of data used to compute historic highs, lows, and "typical values". Sites with a longer data record will generally provide a more reliable comparison to values in the current year.

Report date: 8 May 2024.