



GREATER WELLINGTON REGIONAL COUNCIL

Rainwater Tank Investigation

Rainwater Tank Driest Summers Analysis Report
for Wellington City

HARRISON GRIERSON CONSULTANTS LIMITED

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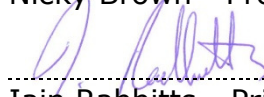
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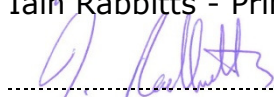
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Appendix 1 Wellington City Driest Summers Rainfall Data

1.0 INTRODUCTION

Harrison Grierson has been commissioned by Greater Wellington Regional Council (Greater Wellington) to perform an analysis of rainwater tanks in the urban environment. The aim of the project was to investigate the viability of urban rainwater tanks for the four cities in the region. The four cities analysed were Lower Hutt (HCC), Upper Hutt (UHCC), Porirua (PCC) and Wellington (WCC). This report details the analysis of Wellington City (WCC) only.

The aim of this analysis was to model the volume of water in the tank over the three driest summers from the last 100 years. Rainfall data from the years with the driest summers in Wellington City was provided by Greater Wellington; the years analysed were 2001, 1982 and 1939. This rainfall data formed the basis of the analysis; the sets of data used for this analysis are provided in Appendix 1.

Greater Wellington specified that this analysis should be performed for a 2 person house with a 100m² roof area and a 5,000 L tank.

1.1 MODEL OUTPUTS

The rainwater tank model plots the volume in the tank, using the rainfall data and demand statistics to calculate the flow in and out each day. The tank has a minimum allowable volume of 10%. If the tank falls below this level it is refilled to 10% using the mains supply.

The outputs from the model discussed in this report are;

- The total volume of rainwater captured and supplied to the household by the rainwater tank over the peak summer months (January – March)
- The volume of rainwater used by the household as a percentage of the total demand for the household over the peak summer months (January – March)

2.0 MODEL SET-UP

2.1 INFLOW

The inflow into the tank over a day is taken to be the roof area used multiplied by the total rainfall for that day. As agreed with Greater Wellington, it is assumed that the first 1 mm of rainfall will not be collected due to the 1st flush diverter, the potential for leaking spouting, inefficient collection and roof area restrictions. It is also assumed that rainfall from the entire roof area will be collected. For this reason the roof area used is the effective roof area.

The flow into the tank is given by the equation 1 below:

$$Flow_{IN} = (RF - RF_{LOSS}) \times RA \quad (1)$$

Where:

RF - Rainfall – for that day (mm)

RF_{LOSS} - Losses = 1 mm

RA - Roof Area – 100 m²

2.2 OUTFLOW

It is assumed that the tank will be used solely for toilet flushing and outdoor usage. Greater Wellington provided statistics for toilet flushing and outdoor usage over the summer and winter months. These were given as a percentage of the total demand and are presented in the table below:

| Season | Toilet Flushing (% of DD) | Outdoor Usage (% of DD) | Total RTU (% of DD) |
|-----------------|---------------------------|-------------------------|---------------------|
| Spring / Summer | 17.5% | 17% | 34.5% |
| Autumn / Winter | 18.5% | 6% | 24.5% |

Greater Wellington provided the average daily demand for each city and the variation in demand over the year. For Wellington City the average was 230 L/person/day, with monthly variation as shown in table 2:

| Month | Daily Demand Variation (% of DD) | Monthly Rainwater Tank Usage (% of DD) | Daily Demand (L/person/day) |
|-----------|----------------------------------|--|-----------------------------|
| January | 107% | 34.5% | 84.90 |
| February | 111% | 34.5% | 88.08 |
| March | 105% | 24.5% | 59.17 |
| April | 98% | 24.5% | 55.22 |
| May | 96% | 24.5% | 54.10 |
| June | 95% | 24.5% | 53.53 |
| July | 95% | 24.5% | 53.53 |
| August | 95% | 24.5% | 53.53 |
| September | 95% | 34.5% | 75.38 |
| October | 96% | 34.5% | 76.18 |
| November | 102% | 34.5% | 80.94 |
| December | 101% | 34.5% | 80.14 |

Using the daily demand per person (DD) for Wellington city, the monthly demand variation (MDV) and the varying rainwater tank usage (RTU) the flow out of the rainwater tank is given by the equation below:

$$Flow_{OUT} = DD_{CITY} \times MDV_{MONTH} \times RTU_{SEASON} \times OCC \quad (2)$$

Where:

- DD* - Daily Demand – 230 L/person/day
- MDV* - Monthly Demand Variation – for a specific month (% of DD)
- RTU* - Rainwater Tank Usage – for a specific season (% of DD)
- OCC* - Occupancy rate – 2 people/house (p/h)

The governing equation for the model as presented below is assumed to be the previous day's volume, plus the inflow (rainfall), minus the outflow (demand):

$$V_{TANK} = V_{PREVIOUS} + Flow_{IN} - Flow_{OUT} \quad (3)$$

Where:

- V_{TANK}* - Current Tank Volume (L)
- V_{PREVIOUS}* - Previous Day's Tank Volume (L)

If the total rainfall for one day is less than the minimum harvest (1mm) then it is assumed no water is collected for the rainwater tank (i.e. $Flow_{IN}$ cannot be negative). It is also assumed that the tank starts at 100% full on the 1st of July, i.e. the initial volume of the tank is 5,000 L.

The current tank volume is calculated for each consecutive day using equation 3 above. Each day the specific rainfall data for that day and the specific demand for that month and season are used.

A 10% buffer volume was incorporated into the model. This was to represent the scenario where the mains water supply would be used to top up the tank when it reached a low level. This meant that if the tank volume is calculated to be below 10%, the volume is returned to 10% and the difference is recorded as "mains supply volume".

Of interest to Greater Wellington was the volume of water used from the tank which was supplied by the collected rain. This was calculated as the total demand from the tank minus the mains supply volume and was recorded as "rainwater supply". This rainwater supply will be equivalent to the cost savings for the household. Of particular interest in this analysis was the rainwater supply over the peak summer months of 1st January to 31st March vs the total demand from the household.

3.0 WELLINGTON CITY DRIEST SUMMERS RESULTS – SUMMARY

The following table summarises the outputs from of the rainwater tank model for Wellington City over the peak summer months (1st January to 31st March) for each of the three driest years analysed.

| Table 3: Peak Months Summary | | | |
|---|-------------|-------------|-------------|
| | 2001 | 1982 | 1939 |
| Rainwater Usage | 6,523 | 7,444 | 8,669 |
| Total toilet & outdoor use (2 people) | 13,865 | 13,865 | 13,865 |
| Rainwater usage as a percentage of total toilet & outdoor use | 47% | 54% | 62% |
| Total Household Demand (2 people) | 44,528 | 44,528 | 44,528 |
| Rainwater usage as a percentage of total demand | 15% | 17% | 19% |

We can see from the table above that for a household in Wellington with 2 people and a 100m² roof area, over the peak summer months of a very dry summer rainwater meets just over half the outdoor usage and toilet flushing required and around 17% of the total demand.

Using a rainwater tank over this period would reduce the demand on the main water supply by 17% per household but the mains supply would be required to provide approximately 6,000 litres of water per household more than in an average year.

Assuming these results apply to 25% of the 136,445 households (2006 Census) in the four cities supplied by Greater Wellington, an additional 205 million litres would be required from the main supply in a dry summer. This is assuming that water consumption levels do not rise in a dry year.

The difficulty with this scenario for both a dry year and an average year, is that stored rainwater cannot be relied on to be available when demand is at its peak. Therefore the municipal supply must be capable of providing the total household peak demand, and peak demand may increase for those households with rainwater tanks, unless they are required to comply with water restrictions and consumption is monitored,

4.0 SUMMARY

Through analysis of the 3 years with the driest summers in the last 100 years, the following conclusions can be drawn; for a house in Wellington City with a roof area of 100m², occupancy of 2 people and a tank size of 5,000 L:

- The total water demand for the household over the peak summer months of January to March is 44,528 L. Over a year with a very dry summer, rainwater meets approximately 17% of this demand for each household.
- If it is assumed that 25% of households had rainwater tanks installed a 17% reduction per household equates to a 4.25% water demand reduction for Wellington City.

5.0 LIMITATIONS

5.1 GENERAL

This report is for the use by Greater Wellington Regional Council only, and should not be used or relied upon by any other person or entity or for any other project.

This report has been prepared for the particular project described to us and its extent is limited to the scope of work agreed between the client and Harrison Grierson Consultants Limited. No responsibility is accepted by Harrison Grierson Consultants Limited or its directors, servants, agents, staff or employees for the accuracy of information provided by third parties and/or the use of any part of this report in any other context or for any other purposes.

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APPENDIX 1

Wellington City Driest Summers Rainfall Data

| 2001 | | |
|---------------------|------------|---------------|
| Station | Date | Rainfall (mm) |
| Wellington, Kelburn | 1/07/2000 | 0.1 |
| Wellington, Kelburn | 2/07/2000 | 0 |
| Wellington, Kelburn | 3/07/2000 | 2.2 |
| Wellington, Kelburn | 4/07/2000 | 7 |
| Wellington, Kelburn | 5/07/2000 | 0.1 |
| Wellington, Kelburn | 6/07/2000 | 0 |
| Wellington, Kelburn | 7/07/2000 | 0 |
| Wellington, Kelburn | 8/07/2000 | 0 |
| Wellington, Kelburn | 9/07/2000 | 0 |
| Wellington, Kelburn | 10/07/2000 | 0 |
| Wellington, Kelburn | 11/07/2000 | 0 |
| Wellington, Kelburn | 12/07/2000 | 0 |
| Wellington, Kelburn | 13/07/2000 | 0 |
| Wellington, Kelburn | 14/07/2000 | 0 |
| Wellington, Kelburn | 15/07/2000 | 0 |
| Wellington, Kelburn | 16/07/2000 | 0 |
| Wellington, Kelburn | 17/07/2000 | 0 |
| Wellington, Kelburn | 18/07/2000 | 0 |
| Wellington, Kelburn | 19/07/2000 | 0.1 |
| Wellington, Kelburn | 20/07/2000 | 0.3 |
| Wellington, Kelburn | 21/07/2000 | 6.2 |
| Wellington, Kelburn | 22/07/2000 | 13.9 |
| Wellington, Kelburn | 23/07/2000 | 0.7 |
| Wellington, Kelburn | 24/07/2000 | 0 |
| Wellington, Kelburn | 25/07/2000 | 0 |
| Wellington, Kelburn | 26/07/2000 | 0 |
| Wellington, Kelburn | 27/07/2000 | 0.3 |
| Wellington, Kelburn | 28/07/2000 | 3.3 |
| Wellington, Kelburn | 29/07/2000 | 0.2 |
| Wellington, Kelburn | 30/07/2000 | 0 |
| Wellington, Kelburn | 31/07/2000 | 0 |
| Wellington, Kelburn | 1/08/2000 | 2.2 |
| Wellington, Kelburn | 2/08/2000 | 0 |
| Wellington, Kelburn | 3/08/2000 | 0 |

| 1982 | | |
|---------------------|------------|---------------|
| Station | Date | Rainfall (mm) |
| Wellington, Kelburn | 1/07/1981 | 0 |
| Wellington, Kelburn | 2/07/1981 | 0 |
| Wellington, Kelburn | 3/07/1981 | 8.8 |
| Wellington, Kelburn | 4/07/1981 | 0 |
| Wellington, Kelburn | 5/07/1981 | 0 |
| Wellington, Kelburn | 6/07/1981 | 46.6 |
| Wellington, Kelburn | 7/07/1981 | 9 |
| Wellington, Kelburn | 8/07/1981 | 6.2 |
| Wellington, Kelburn | 9/07/1981 | 0.3 |
| Wellington, Kelburn | 10/07/1981 | 3.4 |
| Wellington, Kelburn | 11/07/1981 | 14.4 |
| Wellington, Kelburn | 12/07/1981 | 2.6 |
| Wellington, Kelburn | 13/07/1981 | 0 |
| Wellington, Kelburn | 14/07/1981 | 0.9 |
| Wellington, Kelburn | 15/07/1981 | 1.7 |
| Wellington, Kelburn | 16/07/1981 | 11.8 |
| Wellington, Kelburn | 17/07/1981 | 30.7 |
| Wellington, Kelburn | 18/07/1981 | 0.5 |
| Wellington, Kelburn | 19/07/1981 | 28.2 |
| Wellington, Kelburn | 20/07/1981 | 3.8 |
| Wellington, Kelburn | 21/07/1981 | 0 |
| Wellington, Kelburn | 22/07/1981 | 0 |
| Wellington, Kelburn | 23/07/1981 | 0 |
| Wellington, Kelburn | 24/07/1981 | 0 |
| Wellington, Kelburn | 25/07/1981 | 0.1 |
| Wellington, Kelburn | 26/07/1981 | 5.8 |
| Wellington, Kelburn | 27/07/1981 | 0 |
| Wellington, Kelburn | 28/07/1981 | 0.7 |
| Wellington, Kelburn | 29/07/1981 | 1.5 |
| Wellington, Kelburn | 30/07/1981 | 1.2 |
| Wellington, Kelburn | 31/07/1981 | 3.2 |
| Wellington, Kelburn | 1/08/1981 | 0 |
| Wellington, Kelburn | 2/08/1981 | 4.2 |
| Wellington, Kelburn | 3/08/1981 | 5.2 |

| 1939 | | |
|---------------------|------------|---------------|
| Station | Date | Rainfall (mm) |
| Wellington, Kelburn | 1/07/1938 | 5.6 |
| Wellington, Kelburn | 2/07/1938 | 0 |
| Wellington, Kelburn | 3/07/1938 | 5.1 |
| Wellington, Kelburn | 4/07/1938 | 9.4 |
| Wellington, Kelburn | 5/07/1938 | 0.3 |
| Wellington, Kelburn | 6/07/1938 | 5.6 |
| Wellington, Kelburn | 7/07/1938 | 7.1 |
| Wellington, Kelburn | 8/07/1938 | 1.8 |
| Wellington, Kelburn | 9/07/1938 | 0 |
| Wellington, Kelburn | 10/07/1938 | 3.8 |
| Wellington, Kelburn | 11/07/1938 | 18.8 |
| Wellington, Kelburn | 12/07/1938 | 8.1 |
| Wellington, Kelburn | 13/07/1938 | 3 |
| Wellington, Kelburn | 14/07/1938 | 2.8 |
| Wellington, Kelburn | 15/07/1938 | 5.1 |
| Wellington, Kelburn | 16/07/1938 | 3.8 |
| Wellington, Kelburn | 17/07/1938 | 0 |
| Wellington, Kelburn | 18/07/1938 | 0 |
| Wellington, Kelburn | 19/07/1938 | 0 |
| Wellington, Kelburn | 20/07/1938 | 7.4 |
| Wellington, Kelburn | 21/07/1938 | 0.8 |
| Wellington, Kelburn | 22/07/1938 | 2.5 |
| Wellington, Kelburn | 23/07/1938 | 0 |
| Wellington, Kelburn | 24/07/1938 | 1 |
| Wellington, Kelburn | 25/07/1938 | 0 |
| Wellington, Kelburn | 26/07/1938 | 0 |
| Wellington, Kelburn | 27/07/1938 | 2.3 |
| Wellington, Kelburn | 28/07/1938 | 5.1 |
| Wellington, Kelburn | 29/07/1938 | 4.8 |
| Wellington, Kelburn | 30/07/1938 | 0.3 |
| Wellington, Kelburn | 31/07/1938 | 8.1 |
| Wellington, Kelburn | 1/08/1938 | 12.2 |
| Wellington, Kelburn | 2/08/1938 | 4.8 |
| Wellington, Kelburn | 3/08/1938 | 36.6 |

| 2001 | | |
|---------------------|------------|---------------|
| Station | Date | Rainfall (mm) |
| Wellington, Kelburn | 4/08/2000 | 0 |
| Wellington, Kelburn | 5/08/2000 | 0 |
| Wellington, Kelburn | 6/08/2000 | 0 |
| Wellington, Kelburn | 7/08/2000 | 0 |
| Wellington, Kelburn | 8/08/2000 | 0 |
| Wellington, Kelburn | 9/08/2000 | 0 |
| Wellington, Kelburn | 10/08/2000 | 0 |
| Wellington, Kelburn | 11/08/2000 | 8.4 |
| Wellington, Kelburn | 12/08/2000 | 0.1 |
| Wellington, Kelburn | 13/08/2000 | 0 |
| Wellington, Kelburn | 14/08/2000 | 0 |
| Wellington, Kelburn | 15/08/2000 | 0 |
| Wellington, Kelburn | 16/08/2000 | 0 |
| Wellington, Kelburn | 17/08/2000 | 0.9 |
| Wellington, Kelburn | 18/08/2000 | 1.4 |
| Wellington, Kelburn | 19/08/2000 | 11.8 |
| Wellington, Kelburn | 20/08/2000 | 9.8 |
| Wellington, Kelburn | 21/08/2000 | 0.2 |
| Wellington, Kelburn | 22/08/2000 | 10.1 |
| Wellington, Kelburn | 23/08/2000 | 1.4 |
| Wellington, Kelburn | 24/08/2000 | 0 |
| Wellington, Kelburn | 25/08/2000 | 0 |
| Wellington, Kelburn | 26/08/2000 | 4.7 |
| Wellington, Kelburn | 27/08/2000 | 18.9 |
| Wellington, Kelburn | 28/08/2000 | 1.2 |
| Wellington, Kelburn | 29/08/2000 | 1.5 |
| Wellington, Kelburn | 30/08/2000 | 0 |
| Wellington, Kelburn | 31/08/2000 | 0.3 |
| Wellington, Kelburn | 1/09/2000 | 0.6 |
| Wellington, Kelburn | 2/09/2000 | 0 |
| Wellington, Kelburn | 3/09/2000 | 10.8 |
| Wellington, Kelburn | 4/09/2000 | 0 |
| Wellington, Kelburn | 5/09/2000 | 1.3 |
| Wellington, Kelburn | 6/09/2000 | 0.4 |

| 1982 | | |
|---------------------|------------|---------------|
| Station | Date | Rainfall (mm) |
| Wellington, Kelburn | 4/08/1981 | 17.7 |
| Wellington, Kelburn | 5/08/1981 | 13.4 |
| Wellington, Kelburn | 6/08/1981 | 0.9 |
| Wellington, Kelburn | 7/08/1981 | 0.7 |
| Wellington, Kelburn | 8/08/1981 | 3.2 |
| Wellington, Kelburn | 9/08/1981 | 13.9 |
| Wellington, Kelburn | 10/08/1981 | 9.1 |
| Wellington, Kelburn | 11/08/1981 | 0 |
| Wellington, Kelburn | 12/08/1981 | 11.1 |
| Wellington, Kelburn | 13/08/1981 | 0 |
| Wellington, Kelburn | 14/08/1981 | 0 |
| Wellington, Kelburn | 15/08/1981 | 5.2 |
| Wellington, Kelburn | 16/08/1981 | 0.6 |
| Wellington, Kelburn | 17/08/1981 | 0 |
| Wellington, Kelburn | 18/08/1981 | 1 |
| Wellington, Kelburn | 19/08/1981 | 5.5 |
| Wellington, Kelburn | 20/08/1981 | 1.7 |
| Wellington, Kelburn | 21/08/1981 | 0 |
| Wellington, Kelburn | 22/08/1981 | 0 |
| Wellington, Kelburn | 23/08/1981 | 0.2 |
| Wellington, Kelburn | 24/08/1981 | 0.3 |
| Wellington, Kelburn | 25/08/1981 | 13.8 |
| Wellington, Kelburn | 26/08/1981 | 0 |
| Wellington, Kelburn | 27/08/1981 | 1.2 |
| Wellington, Kelburn | 28/08/1981 | 3.8 |
| Wellington, Kelburn | 29/08/1981 | 20.1 |
| Wellington, Kelburn | 30/08/1981 | 2 |
| Wellington, Kelburn | 31/08/1981 | 0.2 |
| Wellington, Kelburn | 1/09/1981 | 2.4 |
| Wellington, Kelburn | 2/09/1981 | 0 |
| Wellington, Kelburn | 3/09/1981 | 0 |
| Wellington, Kelburn | 4/09/1981 | 0 |
| Wellington, Kelburn | 5/09/1981 | 0 |
| Wellington, Kelburn | 6/09/1981 | 2 |

| 1939 | | |
|---------------------|------------|---------------|
| Station | Date | Rainfall (mm) |
| Wellington, Kelburn | 4/08/1938 | 0 |
| Wellington, Kelburn | 5/08/1938 | 0.5 |
| Wellington, Kelburn | 6/08/1938 | 4.6 |
| Wellington, Kelburn | 7/08/1938 | 0 |
| Wellington, Kelburn | 8/08/1938 | 0 |
| Wellington, Kelburn | 9/08/1938 | 0 |
| Wellington, Kelburn | 10/08/1938 | 36.6 |
| Wellington, Kelburn | 11/08/1938 | 0 |
| Wellington, Kelburn | 12/08/1938 | 0 |
| Wellington, Kelburn | 13/08/1938 | 0 |
| Wellington, Kelburn | 14/08/1938 | 0 |
| Wellington, Kelburn | 15/08/1938 | 0 |
| Wellington, Kelburn | 16/08/1938 | 0.3 |
| Wellington, Kelburn | 17/08/1938 | 6.4 |
| Wellington, Kelburn | 18/08/1938 | 0 |
| Wellington, Kelburn | 19/08/1938 | 61.2 |
| Wellington, Kelburn | 20/08/1938 | 0.3 |
| Wellington, Kelburn | 21/08/1938 | 0 |
| Wellington, Kelburn | 22/08/1938 | 0 |
| Wellington, Kelburn | 23/08/1938 | 0 |
| Wellington, Kelburn | 24/08/1938 | 0 |
| Wellington, Kelburn | 25/08/1938 | 0 |
| Wellington, Kelburn | 26/08/1938 | 0 |
| Wellington, Kelburn | 27/08/1938 | 0 |
| Wellington, Kelburn | 28/08/1938 | 1.5 |
| Wellington, Kelburn | 29/08/1938 | 8.4 |
| Wellington, Kelburn | 30/08/1938 | 14.2 |
| Wellington, Kelburn | 31/08/1938 | 0 |
| Wellington, Kelburn | 1/09/1938 | 2.5 |
| Wellington, Kelburn | 2/09/1938 | 12.4 |
| Wellington, Kelburn | 3/09/1938 | 8.6 |
| Wellington, Kelburn | 4/09/1938 | 23.9 |
| Wellington, Kelburn | 5/09/1938 | 4.1 |
| Wellington, Kelburn | 6/09/1938 | 0.8 |

| 2001 | | |
|---------------------|------------|---------------|
| Station | Date | Rainfall (mm) |
| Wellington, Kelburn | 7/09/2000 | 1.4 |
| Wellington, Kelburn | 8/09/2000 | 2.8 |
| Wellington, Kelburn | 9/09/2000 | 2.8 |
| Wellington, Kelburn | 10/09/2000 | 2.9 |
| Wellington, Kelburn | 11/09/2000 | 1.1 |
| Wellington, Kelburn | 12/09/2000 | 1.2 |
| Wellington, Kelburn | 13/09/2000 | 1.4 |
| Wellington, Kelburn | 14/09/2000 | 9.9 |
| Wellington, Kelburn | 15/09/2000 | 1.6 |
| Wellington, Kelburn | 16/09/2000 | 0 |
| Wellington, Kelburn | 17/09/2000 | 0 |
| Wellington, Kelburn | 18/09/2000 | 0 |
| Wellington, Kelburn | 19/09/2000 | 0 |
| Wellington, Kelburn | 20/09/2000 | 0 |
| Wellington, Kelburn | 21/09/2000 | 0.1 |
| Wellington, Kelburn | 22/09/2000 | 0 |
| Wellington, Kelburn | 23/09/2000 | 0 |
| Wellington, Kelburn | 24/09/2000 | 0 |
| Wellington, Kelburn | 25/09/2000 | 3.7 |
| Wellington, Kelburn | 26/09/2000 | 28.4 |
| Wellington, Kelburn | 27/09/2000 | 0.5 |
| Wellington, Kelburn | 28/09/2000 | 0 |
| Wellington, Kelburn | 29/09/2000 | 0 |
| Wellington, Kelburn | 30/09/2000 | 8.2 |
| Wellington, Kelburn | 1/10/2000 | 5.9 |
| Wellington, Kelburn | 2/10/2000 | 21.2 |
| Wellington, Kelburn | 3/10/2000 | 0.4 |
| Wellington, Kelburn | 4/10/2000 | 0 |
| Wellington, Kelburn | 5/10/2000 | 6.2 |
| Wellington, Kelburn | 6/10/2000 | 0 |
| Wellington, Kelburn | 7/10/2000 | 0 |
| Wellington, Kelburn | 8/10/2000 | 5 |
| Wellington, Kelburn | 9/10/2000 | 3.3 |
| Wellington, Kelburn | 10/10/2000 | 0.3 |

| 1982 | | |
|---------------------|------------|---------------|
| Station | Date | Rainfall (mm) |
| Wellington, Kelburn | 7/09/1981 | 0 |
| Wellington, Kelburn | 8/09/1981 | 0 |
| Wellington, Kelburn | 9/09/1981 | 0 |
| Wellington, Kelburn | 10/09/1981 | 10.1 |
| Wellington, Kelburn | 11/09/1981 | 0 |
| Wellington, Kelburn | 12/09/1981 | 0 |
| Wellington, Kelburn | 13/09/1981 | 0.4 |
| Wellington, Kelburn | 14/09/1981 | 0 |
| Wellington, Kelburn | 15/09/1981 | 4.2 |
| Wellington, Kelburn | 16/09/1981 | 0 |
| Wellington, Kelburn | 17/09/1981 | 6.8 |
| Wellington, Kelburn | 18/09/1981 | 0 |
| Wellington, Kelburn | 19/09/1981 | 0 |
| Wellington, Kelburn | 20/09/1981 | 3.6 |
| Wellington, Kelburn | 21/09/1981 | 9.6 |
| Wellington, Kelburn | 22/09/1981 | 0.7 |
| Wellington, Kelburn | 23/09/1981 | 0 |
| Wellington, Kelburn | 24/09/1981 | 0.8 |
| Wellington, Kelburn | 25/09/1981 | 3.2 |
| Wellington, Kelburn | 26/09/1981 | 0 |
| Wellington, Kelburn | 27/09/1981 | 4.9 |
| Wellington, Kelburn | 28/09/1981 | 0.9 |
| Wellington, Kelburn | 29/09/1981 | 15.9 |
| Wellington, Kelburn | 30/09/1981 | 1.1 |
| Wellington, Kelburn | 1/10/1981 | 0 |
| Wellington, Kelburn | 2/10/1981 | 0 |
| Wellington, Kelburn | 3/10/1981 | 0 |
| Wellington, Kelburn | 4/10/1981 | 0 |
| Wellington, Kelburn | 5/10/1981 | 0.4 |
| Wellington, Kelburn | 6/10/1981 | 31 |
| Wellington, Kelburn | 7/10/1981 | 11.5 |
| Wellington, Kelburn | 8/10/1981 | 0 |
| Wellington, Kelburn | 9/10/1981 | 0 |
| Wellington, Kelburn | 10/10/1981 | 0 |

| 1939 | | |
|---------------------|------------|---------------|
| Station | Date | Rainfall (mm) |
| Wellington, Kelburn | 7/09/1938 | 0 |
| Wellington, Kelburn | 8/09/1938 | 21.1 |
| Wellington, Kelburn | 9/09/1938 | 16.3 |
| Wellington, Kelburn | 10/09/1938 | 11.2 |
| Wellington, Kelburn | 11/09/1938 | 0 |
| Wellington, Kelburn | 12/09/1938 | 0 |
| Wellington, Kelburn | 13/09/1938 | 0 |
| Wellington, Kelburn | 14/09/1938 | 0 |
| Wellington, Kelburn | 15/09/1938 | 0.3 |
| Wellington, Kelburn | 16/09/1938 | 1 |
| Wellington, Kelburn | 17/09/1938 | 17.8 |
| Wellington, Kelburn | 18/09/1938 | 28.2 |
| Wellington, Kelburn | 19/09/1938 | 2.8 |
| Wellington, Kelburn | 20/09/1938 | 0 |
| Wellington, Kelburn | 21/09/1938 | 0 |
| Wellington, Kelburn | 22/09/1938 | 0 |
| Wellington, Kelburn | 23/09/1938 | 0 |
| Wellington, Kelburn | 24/09/1938 | 0 |
| Wellington, Kelburn | 25/09/1938 | 0 |
| Wellington, Kelburn | 26/09/1938 | 0 |
| Wellington, Kelburn | 27/09/1938 | 0.3 |
| Wellington, Kelburn | 28/09/1938 | 0 |
| Wellington, Kelburn | 29/09/1938 | 2.3 |
| Wellington, Kelburn | 30/09/1938 | 0 |
| Wellington, Kelburn | 1/10/1938 | 0 |
| Wellington, Kelburn | 2/10/1938 | 0.3 |
| Wellington, Kelburn | 3/10/1938 | 0 |
| Wellington, Kelburn | 4/10/1938 | 0 |
| Wellington, Kelburn | 5/10/1938 | 0 |
| Wellington, Kelburn | 6/10/1938 | 0 |
| Wellington, Kelburn | 7/10/1938 | 0 |
| Wellington, Kelburn | 8/10/1938 | 8.1 |
| Wellington, Kelburn | 9/10/1938 | 0 |
| Wellington, Kelburn | 10/10/1938 | 0 |

| 2001 | | |
|---------------------|------------|---------------|
| Station | Date | Rainfall (mm) |
| Wellington, Kelburn | 11/10/2000 | 0.1 |
| Wellington, Kelburn | 12/10/2000 | 9.9 |
| Wellington, Kelburn | 13/10/2000 | 12.4 |
| Wellington, Kelburn | 14/10/2000 | 0 |
| Wellington, Kelburn | 15/10/2000 | 0 |
| Wellington, Kelburn | 16/10/2000 | 4.8 |
| Wellington, Kelburn | 17/10/2000 | 0 |
| Wellington, Kelburn | 18/10/2000 | 3.8 |
| Wellington, Kelburn | 19/10/2000 | 0 |
| Wellington, Kelburn | 20/10/2000 | 0 |
| Wellington, Kelburn | 21/10/2000 | 0 |
| Wellington, Kelburn | 22/10/2000 | 0 |
| Wellington, Kelburn | 23/10/2000 | 0 |
| Wellington, Kelburn | 24/10/2000 | 0 |
| Wellington, Kelburn | 25/10/2000 | 0.2 |
| Wellington, Kelburn | 26/10/2000 | 0.2 |
| Wellington, Kelburn | 27/10/2000 | 0 |
| Wellington, Kelburn | 28/10/2000 | 0 |
| Wellington, Kelburn | 29/10/2000 | 3.4 |
| Wellington, Kelburn | 30/10/2000 | 1.3 |
| Wellington, Kelburn | 31/10/2000 | 0 |
| Wellington, Kelburn | 1/11/2000 | 5 |
| Wellington, Kelburn | 2/11/2000 | 1 |
| Wellington, Kelburn | 3/11/2000 | 0 |
| Wellington, Kelburn | 4/11/2000 | 0 |
| Wellington, Kelburn | 5/11/2000 | 0 |
| Wellington, Kelburn | 6/11/2000 | 3.9 |
| Wellington, Kelburn | 7/11/2000 | 0 |
| Wellington, Kelburn | 8/11/2000 | 4.8 |
| Wellington, Kelburn | 9/11/2000 | 0.1 |
| Wellington, Kelburn | 10/11/2000 | 0 |
| Wellington, Kelburn | 11/11/2000 | 0 |
| Wellington, Kelburn | 12/11/2000 | 0 |
| Wellington, Kelburn | 13/11/2000 | 0 |

| 1982 | | |
|---------------------|------------|---------------|
| Station | Date | Rainfall (mm) |
| Wellington, Kelburn | 11/10/1981 | 0 |
| Wellington, Kelburn | 12/10/1981 | 0 |
| Wellington, Kelburn | 13/10/1981 | 0 |
| Wellington, Kelburn | 14/10/1981 | 0 |
| Wellington, Kelburn | 15/10/1981 | 0 |
| Wellington, Kelburn | 16/10/1981 | 0 |
| Wellington, Kelburn | 17/10/1981 | 19.5 |
| Wellington, Kelburn | 18/10/1981 | 14.2 |
| Wellington, Kelburn | 19/10/1981 | 0.7 |
| Wellington, Kelburn | 20/10/1981 | 0 |
| Wellington, Kelburn | 21/10/1981 | 0 |
| Wellington, Kelburn | 22/10/1981 | 0 |
| Wellington, Kelburn | 23/10/1981 | 2.5 |
| Wellington, Kelburn | 24/10/1981 | 20.2 |
| Wellington, Kelburn | 25/10/1981 | 44.2 |
| Wellington, Kelburn | 26/10/1981 | 6.4 |
| Wellington, Kelburn | 27/10/1981 | 5.3 |
| Wellington, Kelburn | 28/10/1981 | 0 |
| Wellington, Kelburn | 29/10/1981 | 0 |
| Wellington, Kelburn | 30/10/1981 | 0 |
| Wellington, Kelburn | 31/10/1981 | 0 |
| Wellington, Kelburn | 1/11/1981 | 0 |
| Wellington, Kelburn | 2/11/1981 | 4.4 |
| Wellington, Kelburn | 3/11/1981 | 0 |
| Wellington, Kelburn | 4/11/1981 | 0 |
| Wellington, Kelburn | 5/11/1981 | 0 |
| Wellington, Kelburn | 6/11/1981 | 0.6 |
| Wellington, Kelburn | 7/11/1981 | 4.3 |
| Wellington, Kelburn | 8/11/1981 | 56.8 |
| Wellington, Kelburn | 9/11/1981 | 16.2 |
| Wellington, Kelburn | 10/11/1981 | 5.1 |
| Wellington, Kelburn | 11/11/1981 | 0 |
| Wellington, Kelburn | 12/11/1981 | 0 |
| Wellington, Kelburn | 13/11/1981 | 0.7 |

| 1939 | | |
|---------------------|------------|---------------|
| Station | Date | Rainfall (mm) |
| Wellington, Kelburn | 11/10/1938 | 0 |
| Wellington, Kelburn | 12/10/1938 | 0 |
| Wellington, Kelburn | 13/10/1938 | 0 |
| Wellington, Kelburn | 14/10/1938 | 0 |
| Wellington, Kelburn | 15/10/1938 | 0 |
| Wellington, Kelburn | 16/10/1938 | 0 |
| Wellington, Kelburn | 17/10/1938 | 11.2 |
| Wellington, Kelburn | 18/10/1938 | 0 |
| Wellington, Kelburn | 19/10/1938 | 0 |
| Wellington, Kelburn | 20/10/1938 | 0 |
| Wellington, Kelburn | 21/10/1938 | 5.3 |
| Wellington, Kelburn | 22/10/1938 | 0 |
| Wellington, Kelburn | 23/10/1938 | 5.3 |
| Wellington, Kelburn | 24/10/1938 | 7.4 |
| Wellington, Kelburn | 25/10/1938 | 0 |
| Wellington, Kelburn | 26/10/1938 | 0 |
| Wellington, Kelburn | 27/10/1938 | 0 |
| Wellington, Kelburn | 28/10/1938 | 7.1 |
| Wellington, Kelburn | 29/10/1938 | 5.6 |
| Wellington, Kelburn | 30/10/1938 | 12.7 |
| Wellington, Kelburn | 31/10/1938 | 0 |
| Wellington, Kelburn | 1/11/1938 | 19.6 |
| Wellington, Kelburn | 2/11/1938 | 2.3 |
| Wellington, Kelburn | 3/11/1938 | 9.1 |
| Wellington, Kelburn | 4/11/1938 | 3.6 |
| Wellington, Kelburn | 5/11/1938 | 0 |
| Wellington, Kelburn | 6/11/1938 | 0 |
| Wellington, Kelburn | 7/11/1938 | 0 |
| Wellington, Kelburn | 8/11/1938 | 0 |
| Wellington, Kelburn | 9/11/1938 | 2.3 |
| Wellington, Kelburn | 10/11/1938 | 14.7 |
| Wellington, Kelburn | 11/11/1938 | 0.3 |
| Wellington, Kelburn | 12/11/1938 | 0.3 |
| Wellington, Kelburn | 13/11/1938 | 0 |

| 2001 | | |
|---------------------|------------|---------------|
| Station | Date | Rainfall (mm) |
| Wellington, Kelburn | 14/11/2000 | 0 |
| Wellington, Kelburn | 15/11/2000 | 0.1 |
| Wellington, Kelburn | 16/11/2000 | 4.9 |
| Wellington, Kelburn | 17/11/2000 | 0.1 |
| Wellington, Kelburn | 18/11/2000 | 6 |
| Wellington, Kelburn | 19/11/2000 | 10.7 |
| Wellington, Kelburn | 20/11/2000 | 0.3 |
| Wellington, Kelburn | 21/11/2000 | 0 |
| Wellington, Kelburn | 22/11/2000 | 0 |
| Wellington, Kelburn | 23/11/2000 | 0 |
| Wellington, Kelburn | 24/11/2000 | 0 |
| Wellington, Kelburn | 25/11/2000 | 6.8 |
| Wellington, Kelburn | 26/11/2000 | 0.2 |
| Wellington, Kelburn | 27/11/2000 | 0 |
| Wellington, Kelburn | 28/11/2000 | 1.4 |
| Wellington, Kelburn | 29/11/2000 | 6.9 |
| Wellington, Kelburn | 30/11/2000 | 12.5 |
| Wellington, Kelburn | 1/12/2000 | 0 |
| Wellington, Kelburn | 2/12/2000 | 0 |
| Wellington, Kelburn | 3/12/2000 | 5.9 |
| Wellington, Kelburn | 4/12/2000 | 3.1 |
| Wellington, Kelburn | 5/12/2000 | 0 |
| Wellington, Kelburn | 6/12/2000 | 0 |
| Wellington, Kelburn | 7/12/2000 | 0 |
| Wellington, Kelburn | 8/12/2000 | 0 |
| Wellington, Kelburn | 9/12/2000 | 0.4 |
| Wellington, Kelburn | 10/12/2000 | 0 |
| Wellington, Kelburn | 11/12/2000 | 6.9 |
| Wellington, Kelburn | 12/12/2000 | 13.3 |
| Wellington, Kelburn | 13/12/2000 | 0 |
| Wellington, Kelburn | 14/12/2000 | 0 |
| Wellington, Kelburn | 15/12/2000 | 5.3 |
| Wellington, Kelburn | 16/12/2000 | 0.9 |
| Wellington, Kelburn | 17/12/2000 | 0.2 |

| 1982 | | |
|---------------------|------------|---------------|
| Station | Date | Rainfall (mm) |
| Wellington, Kelburn | 14/11/1981 | 0 |
| Wellington, Kelburn | 15/11/1981 | 2.8 |
| Wellington, Kelburn | 16/11/1981 | 2.8 |
| Wellington, Kelburn | 17/11/1981 | 0 |
| Wellington, Kelburn | 18/11/1981 | 4.4 |
| Wellington, Kelburn | 19/11/1981 | 0 |
| Wellington, Kelburn | 20/11/1981 | 1.1 |
| Wellington, Kelburn | 21/11/1981 | 0 |
| Wellington, Kelburn | 22/11/1981 | 0.1 |
| Wellington, Kelburn | 23/11/1981 | 0 |
| Wellington, Kelburn | 24/11/1981 | 0 |
| Wellington, Kelburn | 25/11/1981 | 0 |
| Wellington, Kelburn | 26/11/1981 | 0 |
| Wellington, Kelburn | 27/11/1981 | 0 |
| Wellington, Kelburn | 28/11/1981 | 0 |
| Wellington, Kelburn | 29/11/1981 | 0 |
| Wellington, Kelburn | 30/11/1981 | 1.7 |
| Wellington, Kelburn | 1/12/1981 | 6.5 |
| Wellington, Kelburn | 2/12/1981 | 1.1 |
| Wellington, Kelburn | 3/12/1981 | 0 |
| Wellington, Kelburn | 4/12/1981 | 0 |
| Wellington, Kelburn | 5/12/1981 | 0 |
| Wellington, Kelburn | 6/12/1981 | 0.6 |
| Wellington, Kelburn | 7/12/1981 | 15.9 |
| Wellington, Kelburn | 8/12/1981 | 1.7 |
| Wellington, Kelburn | 9/12/1981 | 0 |
| Wellington, Kelburn | 10/12/1981 | 5.9 |
| Wellington, Kelburn | 11/12/1981 | 0.7 |
| Wellington, Kelburn | 12/12/1981 | 0 |
| Wellington, Kelburn | 13/12/1981 | 0 |
| Wellington, Kelburn | 14/12/1981 | 0 |
| Wellington, Kelburn | 15/12/1981 | 0 |
| Wellington, Kelburn | 16/12/1981 | 0 |
| Wellington, Kelburn | 17/12/1981 | 0 |

| 1939 | | |
|---------------------|------------|---------------|
| Station | Date | Rainfall (mm) |
| Wellington, Kelburn | 14/11/1938 | 0 |
| Wellington, Kelburn | 15/11/1938 | 0 |
| Wellington, Kelburn | 16/11/1938 | 0 |
| Wellington, Kelburn | 17/11/1938 | 0 |
| Wellington, Kelburn | 18/11/1938 | 0 |
| Wellington, Kelburn | 19/11/1938 | 0 |
| Wellington, Kelburn | 20/11/1938 | 6.9 |
| Wellington, Kelburn | 21/11/1938 | 0 |
| Wellington, Kelburn | 22/11/1938 | 0 |
| Wellington, Kelburn | 23/11/1938 | 0 |
| Wellington, Kelburn | 24/11/1938 | 0 |
| Wellington, Kelburn | 25/11/1938 | 4.1 |
| Wellington, Kelburn | 26/11/1938 | 4.3 |
| Wellington, Kelburn | 27/11/1938 | 0 |
| Wellington, Kelburn | 28/11/1938 | 0.3 |
| Wellington, Kelburn | 29/11/1938 | 1 |
| Wellington, Kelburn | 30/11/1938 | 1.3 |
| Wellington, Kelburn | 1/12/1938 | 0.3 |
| Wellington, Kelburn | 2/12/1938 | 0.5 |
| Wellington, Kelburn | 3/12/1938 | 15.5 |
| Wellington, Kelburn | 4/12/1938 | 1 |
| Wellington, Kelburn | 5/12/1938 | 46.2 |
| Wellington, Kelburn | 6/12/1938 | 3.8 |
| Wellington, Kelburn | 7/12/1938 | 0 |
| Wellington, Kelburn | 8/12/1938 | 29.2 |
| Wellington, Kelburn | 9/12/1938 | 0 |
| Wellington, Kelburn | 10/12/1938 | 0 |
| Wellington, Kelburn | 11/12/1938 | 0 |
| Wellington, Kelburn | 12/12/1938 | 31 |
| Wellington, Kelburn | 13/12/1938 | 0 |
| Wellington, Kelburn | 14/12/1938 | 0 |
| Wellington, Kelburn | 15/12/1938 | 0 |
| Wellington, Kelburn | 16/12/1938 | 5.8 |
| Wellington, Kelburn | 17/12/1938 | 4.6 |

| 2001 | | |
|---------------------|------------|---------------|
| Station | Date | Rainfall (mm) |
| Wellington, Kelburn | 18/12/2000 | 0 |
| Wellington, Kelburn | 19/12/2000 | 0 |
| Wellington, Kelburn | 20/12/2000 | 0 |
| Wellington, Kelburn | 21/12/2000 | 0 |
| Wellington, Kelburn | 22/12/2000 | 0.5 |
| Wellington, Kelburn | 23/12/2000 | 0.1 |
| Wellington, Kelburn | 24/12/2000 | 7.4 |
| Wellington, Kelburn | 25/12/2000 | 0.2 |
| Wellington, Kelburn | 26/12/2000 | 0 |
| Wellington, Kelburn | 27/12/2000 | 0 |
| Wellington, Kelburn | 28/12/2000 | 0.4 |
| Wellington, Kelburn | 29/12/2000 | 3.6 |
| Wellington, Kelburn | 30/12/2000 | 0.2 |
| Wellington, Kelburn | 31/12/2000 | 0.3 |
| Wellington, Kelburn | 1/01/2001 | 1.3 |
| Wellington, Kelburn | 2/01/2001 | 0 |
| Wellington, Kelburn | 3/01/2001 | 0 |
| Wellington, Kelburn | 4/01/2001 | 0 |
| Wellington, Kelburn | 5/01/2001 | 0 |
| Wellington, Kelburn | 6/01/2001 | 0 |
| Wellington, Kelburn | 7/01/2001 | 0 |
| Wellington, Kelburn | 8/01/2001 | 0 |
| Wellington, Kelburn | 9/01/2001 | 0 |
| Wellington, Kelburn | 10/01/2001 | 0 |
| Wellington, Kelburn | 11/01/2001 | 0.1 |
| Wellington, Kelburn | 12/01/2001 | 0.3 |
| Wellington, Kelburn | 13/01/2001 | 0.1 |
| Wellington, Kelburn | 14/01/2001 | 6.9 |
| Wellington, Kelburn | 15/01/2001 | 0.4 |
| Wellington, Kelburn | 16/01/2001 | 0 |
| Wellington, Kelburn | 17/01/2001 | 0 |
| Wellington, Kelburn | 18/01/2001 | 0 |
| Wellington, Kelburn | 19/01/2001 | 0 |
| Wellington, Kelburn | 20/01/2001 | 0 |

| 1982 | | |
|---------------------|------------|---------------|
| Station | Date | Rainfall (mm) |
| Wellington, Kelburn | 18/12/1981 | 0.7 |
| Wellington, Kelburn | 19/12/1981 | 0 |
| Wellington, Kelburn | 20/12/1981 | 0.2 |
| Wellington, Kelburn | 21/12/1981 | 0 |
| Wellington, Kelburn | 22/12/1981 | 12.1 |
| Wellington, Kelburn | 23/12/1981 | 0.4 |
| Wellington, Kelburn | 24/12/1981 | 10.6 |
| Wellington, Kelburn | 25/12/1981 | 0 |
| Wellington, Kelburn | 26/12/1981 | 0 |
| Wellington, Kelburn | 27/12/1981 | 0 |
| Wellington, Kelburn | 28/12/1981 | 0 |
| Wellington, Kelburn | 29/12/1981 | 0 |
| Wellington, Kelburn | 30/12/1981 | 0 |
| Wellington, Kelburn | 31/12/1981 | 0.5 |
| Wellington, Kelburn | 1/01/1982 | 1.5 |
| Wellington, Kelburn | 2/01/1982 | 0 |
| Wellington, Kelburn | 3/01/1982 | 0 |
| Wellington, Kelburn | 4/01/1982 | 1.1 |
| Wellington, Kelburn | 5/01/1982 | 0 |
| Wellington, Kelburn | 6/01/1982 | 0 |
| Wellington, Kelburn | 7/01/1982 | 0 |
| Wellington, Kelburn | 8/01/1982 | 0 |
| Wellington, Kelburn | 9/01/1982 | 0 |
| Wellington, Kelburn | 10/01/1982 | 0 |
| Wellington, Kelburn | 11/01/1982 | 0 |
| Wellington, Kelburn | 12/01/1982 | 0 |
| Wellington, Kelburn | 13/01/1982 | 0 |
| Wellington, Kelburn | 14/01/1982 | 0 |
| Wellington, Kelburn | 15/01/1982 | 1 |
| Wellington, Kelburn | 16/01/1982 | 0 |
| Wellington, Kelburn | 17/01/1982 | 0.8 |
| Wellington, Kelburn | 18/01/1982 | 0 |
| Wellington, Kelburn | 19/01/1982 | 0 |
| Wellington, Kelburn | 20/01/1982 | 5.1 |

| 1939 | | |
|---------------------|------------|---------------|
| Station | Date | Rainfall (mm) |
| Wellington, Kelburn | 18/12/1938 | 4.3 |
| Wellington, Kelburn | 19/12/1938 | 0 |
| Wellington, Kelburn | 20/12/1938 | 9.9 |
| Wellington, Kelburn | 21/12/1938 | 11.2 |
| Wellington, Kelburn | 22/12/1938 | 0 |
| Wellington, Kelburn | 23/12/1938 | 0 |
| Wellington, Kelburn | 24/12/1938 | 0 |
| Wellington, Kelburn | 25/12/1938 | 10.4 |
| Wellington, Kelburn | 26/12/1938 | 11.7 |
| Wellington, Kelburn | 27/12/1938 | 1.3 |
| Wellington, Kelburn | 28/12/1938 | 0 |
| Wellington, Kelburn | 29/12/1938 | 0 |
| Wellington, Kelburn | 30/12/1938 | 0 |
| Wellington, Kelburn | 31/12/1938 | 0 |
| Wellington, Kelburn | 1/01/1939 | 1.8 |
| Wellington, Kelburn | 2/01/1939 | 0 |
| Wellington, Kelburn | 3/01/1939 | 0 |
| Wellington, Kelburn | 4/01/1939 | 0 |
| Wellington, Kelburn | 5/01/1939 | 0 |
| Wellington, Kelburn | 6/01/1939 | 0 |
| Wellington, Kelburn | 7/01/1939 | 0 |
| Wellington, Kelburn | 8/01/1939 | 0 |
| Wellington, Kelburn | 9/01/1939 | 0 |
| Wellington, Kelburn | 10/01/1939 | 1.5 |
| Wellington, Kelburn | 11/01/1939 | 1 |
| Wellington, Kelburn | 12/01/1939 | 1.5 |
| Wellington, Kelburn | 13/01/1939 | 0 |
| Wellington, Kelburn | 14/01/1939 | 0 |
| Wellington, Kelburn | 15/01/1939 | 3.3 |
| Wellington, Kelburn | 16/01/1939 | 1 |
| Wellington, Kelburn | 17/01/1939 | 0 |
| Wellington, Kelburn | 18/01/1939 | 0 |
| Wellington, Kelburn | 19/01/1939 | 0 |
| Wellington, Kelburn | 20/01/1939 | 0 |

| 2001 | | |
|---------------------|------------|---------------|
| Station | Date | Rainfall (mm) |
| Wellington, Kelburn | 21/01/2001 | 0 |
| Wellington, Kelburn | 22/01/2001 | 0 |
| Wellington, Kelburn | 23/01/2001 | 0 |
| Wellington, Kelburn | 24/01/2001 | 0 |
| Wellington, Kelburn | 25/01/2001 | 0 |
| Wellington, Kelburn | 26/01/2001 | 4.5 |
| Wellington, Kelburn | 27/01/2001 | 0 |
| Wellington, Kelburn | 28/01/2001 | 0 |
| Wellington, Kelburn | 29/01/2001 | 0 |
| Wellington, Kelburn | 30/01/2001 | 0 |
| Wellington, Kelburn | 31/01/2001 | 0.4 |
| Wellington, Kelburn | 1/02/2001 | 0.2 |
| Wellington, Kelburn | 2/02/2001 | 0 |
| Wellington, Kelburn | 3/02/2001 | 0 |
| Wellington, Kelburn | 4/02/2001 | 0 |
| Wellington, Kelburn | 5/02/2001 | 0 |
| Wellington, Kelburn | 6/02/2001 | 2.4 |
| Wellington, Kelburn | 7/02/2001 | 0.8 |
| Wellington, Kelburn | 8/02/2001 | 0 |
| Wellington, Kelburn | 9/02/2001 | 0 |
| Wellington, Kelburn | 10/02/2001 | 0 |
| Wellington, Kelburn | 11/02/2001 | 0.1 |
| Wellington, Kelburn | 12/02/2001 | 3.6 |
| Wellington, Kelburn | 13/02/2001 | 7.3 |
| Wellington, Kelburn | 14/02/2001 | 0 |
| Wellington, Kelburn | 15/02/2001 | 0 |
| Wellington, Kelburn | 16/02/2001 | 2.3 |
| Wellington, Kelburn | 17/02/2001 | 0.7 |
| Wellington, Kelburn | 18/02/2001 | 1.7 |
| Wellington, Kelburn | 19/02/2001 | 0 |
| Wellington, Kelburn | 20/02/2001 | 0 |
| Wellington, Kelburn | 21/02/2001 | 0 |
| Wellington, Kelburn | 22/02/2001 | 0 |
| Wellington, Kelburn | 23/02/2001 | 0 |

| 1982 | | |
|---------------------|------------|---------------|
| Station | Date | Rainfall (mm) |
| Wellington, Kelburn | 21/01/1982 | 0 |
| Wellington, Kelburn | 22/01/1982 | 0 |
| Wellington, Kelburn | 23/01/1982 | 0.5 |
| Wellington, Kelburn | 24/01/1982 | 0 |
| Wellington, Kelburn | 25/01/1982 | 0 |
| Wellington, Kelburn | 26/01/1982 | 0 |
| Wellington, Kelburn | 27/01/1982 | 2 |
| Wellington, Kelburn | 28/01/1982 | 0 |
| Wellington, Kelburn | 29/01/1982 | 0 |
| Wellington, Kelburn | 30/01/1982 | 0 |
| Wellington, Kelburn | 31/01/1982 | 0 |
| Wellington, Kelburn | 1/02/1982 | 0 |
| Wellington, Kelburn | 2/02/1982 | 0 |
| Wellington, Kelburn | 3/02/1982 | 0 |
| Wellington, Kelburn | 4/02/1982 | 0 |
| Wellington, Kelburn | 5/02/1982 | 0 |
| Wellington, Kelburn | 6/02/1982 | 0.7 |
| Wellington, Kelburn | 7/02/1982 | 0 |
| Wellington, Kelburn | 8/02/1982 | 0 |
| Wellington, Kelburn | 9/02/1982 | 0 |
| Wellington, Kelburn | 10/02/1982 | 0 |
| Wellington, Kelburn | 11/02/1982 | 0 |
| Wellington, Kelburn | 12/02/1982 | 0 |
| Wellington, Kelburn | 13/02/1982 | 0 |
| Wellington, Kelburn | 14/02/1982 | 0 |
| Wellington, Kelburn | 15/02/1982 | 0 |
| Wellington, Kelburn | 16/02/1982 | 0 |
| Wellington, Kelburn | 17/02/1982 | 0 |
| Wellington, Kelburn | 18/02/1982 | 0 |
| Wellington, Kelburn | 19/02/1982 | 6.1 |
| Wellington, Kelburn | 20/02/1982 | 1.9 |
| Wellington, Kelburn | 21/02/1982 | 0 |
| Wellington, Kelburn | 22/02/1982 | 0 |
| Wellington, Kelburn | 23/02/1982 | 3 |

| 1939 | | |
|---------------------|------------|---------------|
| Station | Date | Rainfall (mm) |
| Wellington, Kelburn | 21/01/1939 | 0 |
| Wellington, Kelburn | 22/01/1939 | 14 |
| Wellington, Kelburn | 23/01/1939 | 0 |
| Wellington, Kelburn | 24/01/1939 | 0 |
| Wellington, Kelburn | 25/01/1939 | 0 |
| Wellington, Kelburn | 26/01/1939 | 0 |
| Wellington, Kelburn | 27/01/1939 | 0 |
| Wellington, Kelburn | 28/01/1939 | 0.3 |
| Wellington, Kelburn | 29/01/1939 | 0 |
| Wellington, Kelburn | 30/01/1939 | 0 |
| Wellington, Kelburn | 31/01/1939 | 0 |
| Wellington, Kelburn | 1/02/1939 | 0 |
| Wellington, Kelburn | 2/02/1939 | 8.6 |
| Wellington, Kelburn | 3/02/1939 | 0 |
| Wellington, Kelburn | 4/02/1939 | 0 |
| Wellington, Kelburn | 5/02/1939 | 1.5 |
| Wellington, Kelburn | 6/02/1939 | 0 |
| Wellington, Kelburn | 7/02/1939 | 3.8 |
| Wellington, Kelburn | 8/02/1939 | 0.3 |
| Wellington, Kelburn | 9/02/1939 | 0 |
| Wellington, Kelburn | 10/02/1939 | 0.5 |
| Wellington, Kelburn | 11/02/1939 | 0 |
| Wellington, Kelburn | 12/02/1939 | 1 |
| Wellington, Kelburn | 13/02/1939 | 0 |
| Wellington, Kelburn | 14/02/1939 | 0 |
| Wellington, Kelburn | 15/02/1939 | 0 |
| Wellington, Kelburn | 16/02/1939 | 0 |
| Wellington, Kelburn | 17/02/1939 | 0 |
| Wellington, Kelburn | 18/02/1939 | 0 |
| Wellington, Kelburn | 19/02/1939 | 1.5 |
| Wellington, Kelburn | 20/02/1939 | 0 |
| Wellington, Kelburn | 21/02/1939 | 0 |
| Wellington, Kelburn | 22/02/1939 | 0 |
| Wellington, Kelburn | 23/02/1939 | 0 |

| 2001 | | |
|---------------------|------------|---------------|
| Station | Date | Rainfall (mm) |
| Wellington, Kelburn | 24/02/2001 | 0 |
| Wellington, Kelburn | 25/02/2001 | 0 |
| Wellington, Kelburn | 26/02/2001 | 0 |
| Wellington, Kelburn | 27/02/2001 | 0 |
| Wellington, Kelburn | 28/02/2001 | 0 |
| Wellington, Kelburn | 1/03/2001 | 0 |
| Wellington, Kelburn | 2/03/2001 | 12.3 |
| Wellington, Kelburn | 3/03/2001 | 3.2 |
| Wellington, Kelburn | 4/03/2001 | 0 |
| Wellington, Kelburn | 5/03/2001 | 0 |
| Wellington, Kelburn | 6/03/2001 | 0 |
| Wellington, Kelburn | 7/03/2001 | 0 |
| Wellington, Kelburn | 8/03/2001 | 0 |
| Wellington, Kelburn | 9/03/2001 | 0.1 |
| Wellington, Kelburn | 10/03/2001 | 0 |
| Wellington, Kelburn | 11/03/2001 | 0 |
| Wellington, Kelburn | 12/03/2001 | 0 |
| Wellington, Kelburn | 13/03/2001 | 0 |
| Wellington, Kelburn | 14/03/2001 | 1 |
| Wellington, Kelburn | 15/03/2001 | 7.8 |
| Wellington, Kelburn | 16/03/2001 | 0 |
| Wellington, Kelburn | 17/03/2001 | 0 |
| Wellington, Kelburn | 18/03/2001 | 0 |
| Wellington, Kelburn | 19/03/2001 | 0 |
| Wellington, Kelburn | 20/03/2001 | 0 |
| Wellington, Kelburn | 21/03/2001 | 0 |
| Wellington, Kelburn | 22/03/2001 | 0 |
| Wellington, Kelburn | 23/03/2001 | 0 |
| Wellington, Kelburn | 24/03/2001 | 0 |
| Wellington, Kelburn | 25/03/2001 | 0 |
| Wellington, Kelburn | 26/03/2001 | 0 |
| Wellington, Kelburn | 27/03/2001 | 0.6 |
| Wellington, Kelburn | 28/03/2001 | 3.9 |
| Wellington, Kelburn | 29/03/2001 | 0 |

| 1982 | | |
|---------------------|------------|---------------|
| Station | Date | Rainfall (mm) |
| Wellington, Kelburn | 24/02/1982 | 11.5 |
| Wellington, Kelburn | 25/02/1982 | 8.7 |
| Wellington, Kelburn | 26/02/1982 | 13.8 |
| Wellington, Kelburn | 27/02/1982 | 0 |
| Wellington, Kelburn | 28/02/1982 | 0 |
| Wellington, Kelburn | 1/03/1982 | 3.2 |
| Wellington, Kelburn | 2/03/1982 | 6.6 |
| Wellington, Kelburn | 3/03/1982 | 2.2 |
| Wellington, Kelburn | 4/03/1982 | 0.3 |
| Wellington, Kelburn | 5/03/1982 | 0 |
| Wellington, Kelburn | 6/03/1982 | 0 |
| Wellington, Kelburn | 7/03/1982 | 0 |
| Wellington, Kelburn | 8/03/1982 | 0 |
| Wellington, Kelburn | 9/03/1982 | 0 |
| Wellington, Kelburn | 10/03/1982 | 0 |
| Wellington, Kelburn | 11/03/1982 | 0 |
| Wellington, Kelburn | 12/03/1982 | 0 |
| Wellington, Kelburn | 13/03/1982 | 0.1 |
| Wellington, Kelburn | 14/03/1982 | 1.9 |
| Wellington, Kelburn | 15/03/1982 | 0.6 |
| Wellington, Kelburn | 16/03/1982 | 0 |
| Wellington, Kelburn | 17/03/1982 | 0 |
| Wellington, Kelburn | 18/03/1982 | 0 |
| Wellington, Kelburn | 19/03/1982 | 0 |
| Wellington, Kelburn | 20/03/1982 | 0 |
| Wellington, Kelburn | 21/03/1982 | 0 |
| Wellington, Kelburn | 22/03/1982 | 0 |
| Wellington, Kelburn | 23/03/1982 | 0 |
| Wellington, Kelburn | 24/03/1982 | 2.9 |
| Wellington, Kelburn | 25/03/1982 | 0 |
| Wellington, Kelburn | 26/03/1982 | 0 |
| Wellington, Kelburn | 27/03/1982 | 0 |
| Wellington, Kelburn | 28/03/1982 | 0 |
| Wellington, Kelburn | 29/03/1982 | 0 |

| 1939 | | |
|---------------------|------------|---------------|
| Station | Date | Rainfall (mm) |
| Wellington, Kelburn | 24/02/1939 | 0 |
| Wellington, Kelburn | 25/02/1939 | 0 |
| Wellington, Kelburn | 26/02/1939 | 0 |
| Wellington, Kelburn | 27/02/1939 | 0 |
| Wellington, Kelburn | 28/02/1939 | 0 |
| Wellington, Kelburn | 1/03/1939 | 0 |
| Wellington, Kelburn | 2/03/1939 | 0 |
| Wellington, Kelburn | 3/03/1939 | 0 |
| Wellington, Kelburn | 4/03/1939 | 0 |
| Wellington, Kelburn | 5/03/1939 | 0 |
| Wellington, Kelburn | 6/03/1939 | 0 |
| Wellington, Kelburn | 7/03/1939 | 0 |
| Wellington, Kelburn | 8/03/1939 | 0 |
| Wellington, Kelburn | 9/03/1939 | 0.5 |
| Wellington, Kelburn | 10/03/1939 | 3.3 |
| Wellington, Kelburn | 11/03/1939 | 19.1 |
| Wellington, Kelburn | 12/03/1939 | 1.5 |
| Wellington, Kelburn | 13/03/1939 | 0 |
| Wellington, Kelburn | 14/03/1939 | 0 |
| Wellington, Kelburn | 15/03/1939 | 0 |
| Wellington, Kelburn | 16/03/1939 | 0 |
| Wellington, Kelburn | 17/03/1939 | 0 |
| Wellington, Kelburn | 18/03/1939 | 0 |
| Wellington, Kelburn | 19/03/1939 | 0 |
| Wellington, Kelburn | 20/03/1939 | 0 |
| Wellington, Kelburn | 21/03/1939 | 0 |
| Wellington, Kelburn | 22/03/1939 | 0 |
| Wellington, Kelburn | 23/03/1939 | 0 |
| Wellington, Kelburn | 24/03/1939 | 0 |
| Wellington, Kelburn | 25/03/1939 | 0 |
| Wellington, Kelburn | 26/03/1939 | 0.8 |
| Wellington, Kelburn | 27/03/1939 | 0 |
| Wellington, Kelburn | 28/03/1939 | 0 |
| Wellington, Kelburn | 29/03/1939 | 0 |

| 2001 | | |
|---------------------|------------|---------------|
| Station | Date | Rainfall (mm) |
| Wellington, Kelburn | 30/03/2001 | 0 |
| Wellington, Kelburn | 31/03/2001 | 0 |
| Wellington, Kelburn | 1/04/2001 | 0 |
| Wellington, Kelburn | 2/04/2001 | 0 |
| Wellington, Kelburn | 3/04/2001 | 8.8 |
| Wellington, Kelburn | 4/04/2001 | 0 |
| Wellington, Kelburn | 5/04/2001 | 0 |
| Wellington, Kelburn | 6/04/2001 | 0 |
| Wellington, Kelburn | 7/04/2001 | 0 |
| Wellington, Kelburn | 8/04/2001 | 0 |
| Wellington, Kelburn | 9/04/2001 | 0 |
| Wellington, Kelburn | 10/04/2001 | 0 |
| Wellington, Kelburn | 11/04/2001 | 0 |
| Wellington, Kelburn | 12/04/2001 | 0 |
| Wellington, Kelburn | 13/04/2001 | 0.7 |
| Wellington, Kelburn | 14/04/2001 | 0.2 |
| Wellington, Kelburn | 15/04/2001 | 0 |
| Wellington, Kelburn | 16/04/2001 | 0 |
| Wellington, Kelburn | 17/04/2001 | 0 |
| Wellington, Kelburn | 18/04/2001 | 0 |
| Wellington, Kelburn | 19/04/2001 | 0 |
| Wellington, Kelburn | 20/04/2001 | 0 |
| Wellington, Kelburn | 21/04/2001 | 0 |
| Wellington, Kelburn | 22/04/2001 | 6.4 |
| Wellington, Kelburn | 23/04/2001 | 0 |
| Wellington, Kelburn | 24/04/2001 | 0 |
| Wellington, Kelburn | 25/04/2001 | 0 |
| Wellington, Kelburn | 26/04/2001 | 0 |
| Wellington, Kelburn | 27/04/2001 | 0 |
| Wellington, Kelburn | 28/04/2001 | 0 |
| Wellington, Kelburn | 29/04/2001 | 0 |
| Wellington, Kelburn | 30/04/2001 | 0 |
| Wellington, Kelburn | 1/05/2001 | 0 |
| Wellington, Kelburn | 2/05/2001 | 0 |

| 1982 | | |
|---------------------|------------|---------------|
| Station | Date | Rainfall (mm) |
| Wellington, Kelburn | 30/03/1982 | 0 |
| Wellington, Kelburn | 31/03/1982 | 1.4 |
| Wellington, Kelburn | 1/04/1982 | 21.2 |
| Wellington, Kelburn | 2/04/1982 | 0.1 |
| Wellington, Kelburn | 3/04/1982 | 7.7 |
| Wellington, Kelburn | 4/04/1982 | 0 |
| Wellington, Kelburn | 5/04/1982 | 1.3 |
| Wellington, Kelburn | 6/04/1982 | 0 |
| Wellington, Kelburn | 7/04/1982 | 2.6 |
| Wellington, Kelburn | 8/04/1982 | 0 |
| Wellington, Kelburn | 9/04/1982 | 16.1 |
| Wellington, Kelburn | 10/04/1982 | 7.7 |
| Wellington, Kelburn | 11/04/1982 | 2.5 |
| Wellington, Kelburn | 12/04/1982 | 0 |
| Wellington, Kelburn | 13/04/1982 | 4.1 |
| Wellington, Kelburn | 14/04/1982 | 6 |
| Wellington, Kelburn | 15/04/1982 | 0 |
| Wellington, Kelburn | 16/04/1982 | 7.1 |
| Wellington, Kelburn | 17/04/1982 | 0.8 |
| Wellington, Kelburn | 18/04/1982 | 0 |
| Wellington, Kelburn | 19/04/1982 | 0 |
| Wellington, Kelburn | 20/04/1982 | 1.5 |
| Wellington, Kelburn | 21/04/1982 | 0 |
| Wellington, Kelburn | 22/04/1982 | 0.2 |
| Wellington, Kelburn | 23/04/1982 | 0.4 |
| Wellington, Kelburn | 24/04/1982 | 0 |
| Wellington, Kelburn | 25/04/1982 | 1.7 |
| Wellington, Kelburn | 26/04/1982 | 0.5 |
| Wellington, Kelburn | 27/04/1982 | 0 |
| Wellington, Kelburn | 28/04/1982 | 0 |
| Wellington, Kelburn | 29/04/1982 | 0 |
| Wellington, Kelburn | 30/04/1982 | 6 |
| Wellington, Kelburn | 1/05/1982 | 5.8 |
| Wellington, Kelburn | 2/05/1982 | 5.7 |

| 1939 | | |
|---------------------|------------|---------------|
| Station | Date | Rainfall (mm) |
| Wellington, Kelburn | 30/03/1939 | 0 |
| Wellington, Kelburn | 31/03/1939 | 0 |
| Wellington, Kelburn | 1/04/1939 | 1.5 |
| Wellington, Kelburn | 2/04/1939 | 0 |
| Wellington, Kelburn | 3/04/1939 | 0 |
| Wellington, Kelburn | 4/04/1939 | 0.5 |
| Wellington, Kelburn | 5/04/1939 | 0 |
| Wellington, Kelburn | 6/04/1939 | 0 |
| Wellington, Kelburn | 7/04/1939 | 0 |
| Wellington, Kelburn | 8/04/1939 | 0 |
| Wellington, Kelburn | 9/04/1939 | 0 |
| Wellington, Kelburn | 10/04/1939 | 0 |
| Wellington, Kelburn | 11/04/1939 | 0 |
| Wellington, Kelburn | 12/04/1939 | 0 |
| Wellington, Kelburn | 13/04/1939 | 0 |
| Wellington, Kelburn | 14/04/1939 | 0 |
| Wellington, Kelburn | 15/04/1939 | 0.5 |
| Wellington, Kelburn | 16/04/1939 | 0 |
| Wellington, Kelburn | 17/04/1939 | 0 |
| Wellington, Kelburn | 18/04/1939 | 0 |
| Wellington, Kelburn | 19/04/1939 | 3.6 |
| Wellington, Kelburn | 20/04/1939 | 42.7 |
| Wellington, Kelburn | 21/04/1939 | 12.7 |
| Wellington, Kelburn | 22/04/1939 | 3.3 |
| Wellington, Kelburn | 23/04/1939 | 0 |
| Wellington, Kelburn | 24/04/1939 | 8.4 |
| Wellington, Kelburn | 25/04/1939 | 1.3 |
| Wellington, Kelburn | 26/04/1939 | 0 |
| Wellington, Kelburn | 27/04/1939 | 1.8 |
| Wellington, Kelburn | 28/04/1939 | 0 |
| Wellington, Kelburn | 29/04/1939 | 0 |
| Wellington, Kelburn | 30/04/1939 | 0.3 |
| Wellington, Kelburn | 1/05/1939 | 0 |
| Wellington, Kelburn | 2/05/1939 | 0 |

| 2001 | | |
|---------------------|------------|---------------|
| Station | Date | Rainfall (mm) |
| Wellington, Kelburn | 3/05/2001 | 0 |
| Wellington, Kelburn | 4/05/2001 | 6.1 |
| Wellington, Kelburn | 5/05/2001 | 0.4 |
| Wellington, Kelburn | 6/05/2001 | 3 |
| Wellington, Kelburn | 7/05/2001 | 1.3 |
| Wellington, Kelburn | 8/05/2001 | 0.3 |
| Wellington, Kelburn | 9/05/2001 | 2.2 |
| Wellington, Kelburn | 10/05/2001 | 3.9 |
| Wellington, Kelburn | 11/05/2001 | 3.4 |
| Wellington, Kelburn | 12/05/2001 | 0.8 |
| Wellington, Kelburn | 13/05/2001 | 0 |
| Wellington, Kelburn | 14/05/2001 | 0 |
| Wellington, Kelburn | 15/05/2001 | 0 |
| Wellington, Kelburn | 16/05/2001 | 6.8 |
| Wellington, Kelburn | 17/05/2001 | 0 |
| Wellington, Kelburn | 18/05/2001 | 0 |
| Wellington, Kelburn | 19/05/2001 | 1.7 |
| Wellington, Kelburn | 20/05/2001 | 0 |
| Wellington, Kelburn | 21/05/2001 | 0 |
| Wellington, Kelburn | 22/05/2001 | 0 |
| Wellington, Kelburn | 23/05/2001 | 3.9 |
| Wellington, Kelburn | 24/05/2001 | 0 |
| Wellington, Kelburn | 25/05/2001 | 5.8 |
| Wellington, Kelburn | 26/05/2001 | 20.3 |
| Wellington, Kelburn | 27/05/2001 | 0.2 |
| Wellington, Kelburn | 28/05/2001 | 0.9 |
| Wellington, Kelburn | 29/05/2001 | 2.3 |
| Wellington, Kelburn | 30/05/2001 | 0.6 |
| Wellington, Kelburn | 31/05/2001 | 15.1 |
| Wellington, Kelburn | 1/06/2001 | 0 |
| Wellington, Kelburn | 2/06/2001 | 0 |
| Wellington, Kelburn | 3/06/2001 | 0.4 |
| Wellington, Kelburn | 4/06/2001 | 0 |
| Wellington, Kelburn | 5/06/2001 | 0 |

| 1982 | | |
|---------------------|------------|---------------|
| Station | Date | Rainfall (mm) |
| Wellington, Kelburn | 3/05/1982 | 3.3 |
| Wellington, Kelburn | 4/05/1982 | 0 |
| Wellington, Kelburn | 5/05/1982 | 0 |
| Wellington, Kelburn | 6/05/1982 | 0 |
| Wellington, Kelburn | 7/05/1982 | 0 |
| Wellington, Kelburn | 8/05/1982 | 0.1 |
| Wellington, Kelburn | 9/05/1982 | 8.5 |
| Wellington, Kelburn | 10/05/1982 | 0 |
| Wellington, Kelburn | 11/05/1982 | 0.5 |
| Wellington, Kelburn | 12/05/1982 | 4.5 |
| Wellington, Kelburn | 13/05/1982 | 0.7 |
| Wellington, Kelburn | 14/05/1982 | 0.2 |
| Wellington, Kelburn | 15/05/1982 | 23.8 |
| Wellington, Kelburn | 16/05/1982 | 0.4 |
| Wellington, Kelburn | 17/05/1982 | 0 |
| Wellington, Kelburn | 18/05/1982 | 0 |
| Wellington, Kelburn | 19/05/1982 | 0 |
| Wellington, Kelburn | 20/05/1982 | 0.1 |
| Wellington, Kelburn | 21/05/1982 | 1.3 |
| Wellington, Kelburn | 22/05/1982 | 0 |
| Wellington, Kelburn | 23/05/1982 | 10.6 |
| Wellington, Kelburn | 24/05/1982 | 1.8 |
| Wellington, Kelburn | 25/05/1982 | 0 |
| Wellington, Kelburn | 26/05/1982 | 0.9 |
| Wellington, Kelburn | 27/05/1982 | 0 |
| Wellington, Kelburn | 28/05/1982 | 0.1 |
| Wellington, Kelburn | 29/05/1982 | 0 |
| Wellington, Kelburn | 30/05/1982 | 0 |
| Wellington, Kelburn | 31/05/1982 | 0 |
| Wellington, Kelburn | 1/06/1982 | 0 |
| Wellington, Kelburn | 2/06/1982 | 0 |
| Wellington, Kelburn | 3/06/1982 | 0 |
| Wellington, Kelburn | 4/06/1982 | 8.9 |
| Wellington, Kelburn | 5/06/1982 | 33.6 |

| 1939 | | |
|---------------------|------------|---------------|
| Station | Date | Rainfall (mm) |
| Wellington, Kelburn | 3/05/1939 | 0.8 |
| Wellington, Kelburn | 4/05/1939 | 4.1 |
| Wellington, Kelburn | 5/05/1939 | 0 |
| Wellington, Kelburn | 6/05/1939 | 0 |
| Wellington, Kelburn | 7/05/1939 | 0.8 |
| Wellington, Kelburn | 8/05/1939 | 0.8 |
| Wellington, Kelburn | 9/05/1939 | 0 |
| Wellington, Kelburn | 10/05/1939 | 3 |
| Wellington, Kelburn | 11/05/1939 | 0 |
| Wellington, Kelburn | 12/05/1939 | 0 |
| Wellington, Kelburn | 13/05/1939 | 1 |
| Wellington, Kelburn | 14/05/1939 | 0 |
| Wellington, Kelburn | 15/05/1939 | 0 |
| Wellington, Kelburn | 16/05/1939 | 1.5 |
| Wellington, Kelburn | 17/05/1939 | 1.5 |
| Wellington, Kelburn | 18/05/1939 | 0 |
| Wellington, Kelburn | 19/05/1939 | 0 |
| Wellington, Kelburn | 20/05/1939 | 0 |
| Wellington, Kelburn | 21/05/1939 | 4.6 |
| Wellington, Kelburn | 22/05/1939 | 0 |
| Wellington, Kelburn | 23/05/1939 | 0.3 |
| Wellington, Kelburn | 24/05/1939 | 0 |
| Wellington, Kelburn | 25/05/1939 | 1.8 |
| Wellington, Kelburn | 26/05/1939 | 33 |
| Wellington, Kelburn | 27/05/1939 | 4.8 |
| Wellington, Kelburn | 28/05/1939 | 0 |
| Wellington, Kelburn | 29/05/1939 | 0 |
| Wellington, Kelburn | 30/05/1939 | 0 |
| Wellington, Kelburn | 31/05/1939 | 0 |
| Wellington, Kelburn | 1/06/1939 | 0 |
| Wellington, Kelburn | 2/06/1939 | 0 |
| Wellington, Kelburn | 3/06/1939 | 0 |
| Wellington, Kelburn | 4/06/1939 | 0 |
| Wellington, Kelburn | 5/06/1939 | 3 |

| 2001 | | |
|---------------------|------------|---------------|
| Station | Date | Rainfall (mm) |
| Wellington, Kelburn | 6/06/2001 | 0 |
| Wellington, Kelburn | 7/06/2001 | 3.1 |
| Wellington, Kelburn | 8/06/2001 | 1.2 |
| Wellington, Kelburn | 9/06/2001 | 0 |
| Wellington, Kelburn | 10/06/2001 | 0.3 |
| Wellington, Kelburn | 11/06/2001 | 7 |
| Wellington, Kelburn | 12/06/2001 | 0 |
| Wellington, Kelburn | 13/06/2001 | 0 |
| Wellington, Kelburn | 14/06/2001 | 0 |
| Wellington, Kelburn | 15/06/2001 | 1.8 |
| Wellington, Kelburn | 16/06/2001 | 0 |
| Wellington, Kelburn | 17/06/2001 | 20.8 |
| Wellington, Kelburn | 18/06/2001 | 8.8 |
| Wellington, Kelburn | 19/06/2001 | 4.9 |
| Wellington, Kelburn | 20/06/2001 | 0 |
| Wellington, Kelburn | 21/06/2001 | 0 |
| Wellington, Kelburn | 22/06/2001 | 0.3 |
| Wellington, Kelburn | 23/06/2001 | 1.5 |
| Wellington, Kelburn | 24/06/2001 | 0.1 |
| Wellington, Kelburn | 25/06/2001 | 12.2 |
| Wellington, Kelburn | 26/06/2001 | 0 |
| Wellington, Kelburn | 27/06/2001 | 0 |
| Wellington, Kelburn | 28/06/2001 | 21.6 |
| Wellington, Kelburn | 29/06/2001 | 2.1 |
| Wellington, Kelburn | 30/06/2001 | 0.4 |

| 1982 | | |
|---------------------|------------|---------------|
| Station | Date | Rainfall (mm) |
| Wellington, Kelburn | 6/06/1982 | 22.6 |
| Wellington, Kelburn | 7/06/1982 | 6.1 |
| Wellington, Kelburn | 8/06/1982 | 5.3 |
| Wellington, Kelburn | 9/06/1982 | 0 |
| Wellington, Kelburn | 10/06/1982 | 0 |
| Wellington, Kelburn | 11/06/1982 | 0 |
| Wellington, Kelburn | 12/06/1982 | 1.3 |
| Wellington, Kelburn | 13/06/1982 | 4.3 |
| Wellington, Kelburn | 14/06/1982 | 8.5 |
| Wellington, Kelburn | 15/06/1982 | 5.6 |
| Wellington, Kelburn | 16/06/1982 | 0 |
| Wellington, Kelburn | 17/06/1982 | 2.6 |
| Wellington, Kelburn | 18/06/1982 | 11.9 |
| Wellington, Kelburn | 19/06/1982 | 0.1 |
| Wellington, Kelburn | 20/06/1982 | 2.2 |
| Wellington, Kelburn | 21/06/1982 | 0.2 |
| Wellington, Kelburn | 22/06/1982 | 0.1 |
| Wellington, Kelburn | 23/06/1982 | 8.1 |
| Wellington, Kelburn | 24/06/1982 | 5.4 |
| Wellington, Kelburn | 25/06/1982 | 11.5 |
| Wellington, Kelburn | 26/06/1982 | 60.4 |
| Wellington, Kelburn | 27/06/1982 | 0.4 |
| Wellington, Kelburn | 28/06/1982 | 0 |
| Wellington, Kelburn | 29/06/1982 | 0 |
| Wellington, Kelburn | 30/06/1982 | 0 |

| 1939 | | |
|---------------------|------------|---------------|
| Station | Date | Rainfall (mm) |
| Wellington, Kelburn | 6/06/1939 | 1.5 |
| Wellington, Kelburn | 7/06/1939 | 2.8 |
| Wellington, Kelburn | 8/06/1939 | 9.1 |
| Wellington, Kelburn | 9/06/1939 | 9.1 |
| Wellington, Kelburn | 10/06/1939 | 0 |
| Wellington, Kelburn | 11/06/1939 | 0 |
| Wellington, Kelburn | 12/06/1939 | 14.7 |
| Wellington, Kelburn | 13/06/1939 | 4.8 |
| Wellington, Kelburn | 14/06/1939 | 6.6 |
| Wellington, Kelburn | 15/06/1939 | 0 |
| Wellington, Kelburn | 16/06/1939 | 0 |
| Wellington, Kelburn | 17/06/1939 | 1.3 |
| Wellington, Kelburn | 18/06/1939 | 0 |
| Wellington, Kelburn | 19/06/1939 | 0 |
| Wellington, Kelburn | 20/06/1939 | 13.5 |
| Wellington, Kelburn | 21/06/1939 | 8.6 |
| Wellington, Kelburn | 22/06/1939 | 0 |
| Wellington, Kelburn | 23/06/1939 | 3.8 |
| Wellington, Kelburn | 24/06/1939 | 3.8 |
| Wellington, Kelburn | 25/06/1939 | 4.1 |
| Wellington, Kelburn | 26/06/1939 | 0 |
| Wellington, Kelburn | 27/06/1939 | 0 |
| Wellington, Kelburn | 28/06/1939 | 0 |
| Wellington, Kelburn | 29/06/1939 | 0 |
| Wellington, Kelburn | 30/06/1939 | 0 |