

2019-20 Summer Water Quality Monitoring Programme

Monitoring within the Kaiate Falls catchment last summer identified the Otawera stream as potentially being the biggest source of the faecal contamination observed at Kaiate Falls at present. The monitoring sites shown in the figure overleaf are a subset of previously monitored sites that will be monitored over the upcoming summer. These sites have been selected to provide further information on contamination levels in the Otawera Stream. The Kaiate Stream will also be monitored, both upstream and downstream of the Otawera confluence, to provide some comparison and context, as well as to isolate the contribution of the Otawera Stream to the Kaiate Falls site.

Flow gauging will also be undertaken this summer to provide a robust relationship between the water quality monitoring sites and the continuously gauged site at Kaiate Falls Bridge. This will help in the future for any ongoing monitoring and determining load contribution at each monitoring site.

This monitoring programme has been designed to assist in achieving swimmable water quality at Kaiate Falls. The sections below outline the programme for the upcoming summer and what will be undertaken.

Water Quality Samples

Weekly summer sampling between 27th November 2019 and 24th February 2020 (excluding the Christmas and New Year period) will be undertaken at the sites shown in the figure overleaf. There may be opportunity for a new site that will act as a control upstream of where stock currently graze.

Water quality samples will be collected at each site to be analysed for:

- *E. coli*;
- Turbidity;
- pH; and
- Conductivity

Field measurements will be taken at each site for:

- Dissolved Oxygen; and
- Temperature

Observations, such as the location of any observed stock will be noted to assist in the understanding of results.

Flow Gauging

Flow gauging will be undertaken at five sites (sites 1, 10, 15, 7 and 6) on a fortnightly basis between 27th November and 24th February to build a relationship between flow at Site 1 (continuously gauged) and all other sites.

Dates

The below table outlines the proposed dates for sampling and flow gauging over the upcoming summer.

Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Nov 25	26	27 Sampling & Flow Gauging	28	29	30	Dec 1
2 Sampling	3	4	5	6	7	8
9	10	11 Sampling & Flow Gauging	12	13	14	15
16 Sampling	17	18	19	20	21	22
Christmas & New Year Break						
Jan 6	7	8 Sampling & Flow Gauging	9	10	11	12
13 Sampling	14	15	16	17	18	19
20	21	22 Sampling & Flow Gauging	23	24	25	26
27	28 Sampling	29	30	31	Feb 1	2
3 Sampling & Flow Gauging	4	5	6	7	8	9
10 Sampling	11	12	13	14	15	16
17	18	19 Sampling & Flow Gauging	20	21	22	23
24 Sampling	25	26	27	28		