

Wairio Turf Community

Results of survey during Barrage Gates Maintenance Feb – April 2011



Fig 1: Eastern lakeshore turf community at Wairio

While the barrage gates were open for maintenance it seemed an opportune time to undertake a survey of the turf community of the lakebed under conditions that would approach the type of extreme that would have been natural before the construction of the gates.

The survey was initiated to look for a mass flowering or seeding event of one or more of the turf forming species and to gain information on how these extremes affect plant growth and vigour over the length of what should be an extended dry period, as near as comparable as we are able to get to a natural drought event under current management.

Visits over the length of the dry period would allow for gathering of information on flower production, intensity of flowering and maturing of seed.

Two monitoring visits were undertaken, 21 February 2011 and 8 March 2011.

Two belt transects were established, one approximately 5 metres south of the Greater Wellington monitoring line, and the second approximately 350 metres south of the first.

Plots on each line were 50 metres apart, following the bearing of the GW line (290^0), with the first plot 50m from the tall shoreline vegetation. Plot locations were established with GPS.



Fig 2: Location of lines and plots

Plots covered 1m².

Plot parameters were:

Substrate, topography, wetness, vegetative cover and species, flowering and seeding

Plots were established until the water in the main lake was reached and the lakebed was submerged.

12 plots were established on the northern line and 8 on the southern.



Fig 2: Plot ready for measurement



Fig 3: Plot established with GPS and compass

During the period between the establishment of the plots and the second monitoring visit, the lake level rose after a period of rain and monitoring showed that there was no change in flowering in the monitored plots. 9 plots on the northern series and 7 on the southern could be reached, the remainder being submerged.

GW records indicate that lake levels have at times been lower than those experienced during this time while the gates have been operating as normal and it may be that remeasuring the plots during times of low lake level earlier in the summer would give some insight into the flowering and seeding pattern of the turf plants.